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Final report

Prioritised PMT/vPvM substances in the REACH registration database

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On behalf of the German Environment Agency

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Abstract: Prioritised PMT/vPvM substances in the REACH registration database

The updated UBA list comprising of 343 PMT/vPvM substances (unique chemical structures), belonging to 474 registered substances in the REACH registration database, is presented. This is the first update to the UBA list of PMT/vPvM substances as of May 2017 originally published as UBA TEXTE 126/2019. This update is based on the REACH registration database as of September 2019. The UBA list is split into three priority categories, based on whether the registration volume is > 10 tpa and whether the substance is currently subject to any regulation in Europe. The High-Priority Category A comprises of 173 PMT/vPvM substances. The two Moderate-priority Categories B and C comprise of 142 and 29 PMT/vPvM substances, respectively.

Of these 343 PMT/vPvM substances, only 259 substances meet the less stringent PMT/vPvM criteria proposed in 2021 by the European Commission for new hazard classes under the CLP regulation. An additional 421 unique chemical structures (belonging to 474 registered substances) are presented, that were assessed to be persistent and mobile but with currently no high-quality consensus conclusions that the criteria for toxicity is met. The prioritised UBA list of 343 PMT/vPvM substances in the REACH registration database is ready to use for registrants and downstream users. They can immediately act to reduce and minimise emissions throughout the whole life cycle of their substances, to ultimately increase the safety of drinking water resources and to safeguard freshwater environments for future generations.

Kurzbeschreibung: Priorisierte PMT/vPvM-Stoffe in der REACH-Registrierungsdatenbank

Die aktualisierte UBA-Liste mit 343 PMT/vPvM-Stoffen (einzigartige chemische Strukturen), die zu 474 registrierten Stoffen in der REACH-Registrierungsdatenbank gehören, wird präsentiert. Dies ist die erste Aktualisierung der UBA-Liste mit PMT/vPvM-Stoffen Stand Mai 2017, die ursprünglich als UBA TEXTE 126/2019 veröffentlicht wurde. Dieses Update basiert auf der REACH-Registrierungsdatenbank Stand September 2019. Die UBA-Liste ist in drei Prioritätskategorien unterteilt, je nachdem, ob das Registrierungsvolumen > 10 tpa beträgt und ob der Stoff derzeit in Europa reguliert ist. Die höchste Prioritätskategorie A umfasst 173 PMT/vPvM-Stoffe. Die beiden mittleren Prioritätskategorien B und C umfassen 142 bzw. 29 PMT/vPvM-Stoffe.

Von diesen 343 PMT/vPvM-Stoffen erfüllen nur 259 Stoffe die weniger strengen PMT/vPvM-Kriterien, die die Europäische Kommission 2021 für neue Gefahrenklassen im Rahmen der CLP-Verordnung vorgeschlagen hat. Es werden weitere 421 einzigartige chemische Strukturen (die zu 474 registrierten Stoffen gehören) präsentiert, die als persistent und mobil eingestuft wurden, aber derzeit keine qualitativ hochwertigen Konsensfolgerungen haben, dass das Toxizitätskriterium erfüllt ist. Die priorisierte UBA-Liste mit 343 PMT/vPvM-Stoffen in der REACH-Registrierungsdatenbank ist für Registranten und nachgeschaltete Anwender direkt nutzbar. Sie können sofort handeln, um Emissionen während des gesamten Lebenszyklus ihrer Stoffe zu reduzieren und zu minimieren, um letztlich die Sicherheit der Trinkwasserressourcen zu erhöhen und die aquatische Umwelt für zukünftige Generationen zu schützen.

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List of abbreviations

DNEL	Derived no effect level
D_{OW}	Octanol-water distribution coefficient for all species
DT_{50}	The half-life of a substance in soil
E-score	Emission-score
EDC	Endocrine Disrupting
InChIKey	A fixed length (27 character) condensed digital representation of the International Chemical Identifiers
K_{oc}	Soil sorption coefficient normalized to the total organic carbon
M	Mobile
NOEC	No observed effect concentration
P	Persistent
PBT	Persistent, bioaccumulative and toxic
PM	Persistent and mobile
PMT	Persistent, mobile and toxic
STOT RE	Specific target organ toxicity - repeat exposure
T	Toxic
vP	Very persistent
vM	Very mobile
vPvB	Very persistent and very bioaccumulative
vPvM	Very persistent and very mobile

Summary

In 2019 the German Environment Agency (UBA) published the first results of a PMT/vPvM assessment for all substances registered under REACH as of May 2017. This report presents the first update of the UBA list of PMT/vPvM substances. It is based on all substances in the REACH registration database as of September 2019. While the first version of the UBA list compiled 260 PMT/vPvM substances, there are now in this update 343 unique chemical structures (belonging to 474 registered substances) that were assessed as meeting the PMT/vPvM criteria. Taking the less stringent PMT/vPvM criteria proposed in 2021 by the EC into consideration, only 259 unique chemical structures (belonging to 360 registered substances) are classified as PMT/vPvM substances.

The UBA list of 343 PMT/vPvM substances in the REACH registration database is split into three priority categories. The first is High-Priority Category A, which are PMT/vPvM substances registered under REACH with registration volumes greater than 10 tpa and not already subject to EU regulations. This category comprises of 172 unique chemical structures (belonging to 259 registered substances). The second is the Moderate-Priority Category B of PMT/vPvM substances registered under REACH with registration volumes greater than 1 tpa but less than 10 tpa, and not already subject to EU regulations. This comprises 142 unique chemical structures (belonging to 162 registered substances). The third is the Moderate-Priority Category C of PMT/vPvM substances which are already subject to EU regulations. This comprises 29 unique chemical structures (belonging to 53 registered substances).

Within each of these three priority categories, a further sub-prioritisation was made based on additional factors. These included the emission and environmental exposure likelihood (the "REACH emission likelihood"), environmental monitoring data, mixture composition, and volatility.

The UBA list of PMT/vPvM substances in the REACH registration database supports registrants and downstream users to immediately act to reduce and minimise emissions throughout the whole life cycle of these substances. Registrants of these substances are also encouraged to provide the results of missing persistency or log K_{OC} testing in their REACH registration dossier, as well as any missing analytical methods and analytical standards to monitor these substances in the aquatic environment. A full toxicity assessment considering long-term oral exposure is encouraged for the vPvM substances, as well as the 421 substances in Annex A, which are considered persistent and mobile, but lack high-quality consensus conclusions that the criteria for T is met.

Local authorities at the watershed scale should use the UBA list of PMT/vPvM substances in the REACH registration database to contact manufacturers, importers and downstream users of the substances so that they are able to develop "source control" schemes. Such schemes may take the form of facilitating communication between the users and emitters of PMT/vPvM substances and the water suppliers that are tasked with monitoring or remediating them. For Member State Competent Authorities, the European Chemicals Agency (ECHA) and the European Commission (EC), the UBA list of PMT/vPvM substances in the REACH registration database provides candidates for the identification as SVHC under REACH and for classifications using the new hazard classes PMT and vPvM under CLP.

Zusammenfassung

Im Jahr 2019 veröffentlichte das Umweltbundesamt (UBA) die ersten Ergebnisse einer PMT/vPvM-Bewertung für alle im Rahmen der REACH-Verordnung registrierten Stoffe Stand Mai 2017. Dieser Bericht präsentiert das erste Update der UBA-Liste mit PMT/vPvM-Stoffen. Die UBA-Liste basiert nun auf allen Stoffen in der REACH-Registrierungsdatenbank (Stand September 2019). Während die ersten Version der UBA-Liste 260 PMT/vPvM-Stoffe umfasste, wurden mit diesem Update nun 343 einzigartige chemische Strukturen (die zu ~~462~~474 registrierten Stoffen gehören) als PMT/vPvM-Stoff eingestuft. Wenn man die 2021 von der EU Kommission vorgeschlagenen weniger strengen PMT/vPvM-Kriterien verwendet, werden davon nur 260 einzigartige chemische Strukturen (die zu 360 registrierten Stoffen gehören) als PMT/vPvM-Stoffe eingestuft.

Die UBA-Liste von insgesamt 343 PMT/vPvM-Stoffen in der REACH-Registrierungsdatenbank ist in drei Prioritätskategorien unterteilt. Die erste umfasst PMT/vPvM-Stoffe, die unter REACH in Mengen > 10 tpa registrierte sind und bisher nicht in der EU reguliert sind. Diese Prioritätskategorie A umfasst 172 einzigartige chemische Strukturen (die zu 259 registrierten Stoffen gehören). Die zweite umfasst PMT/vPvM-Stoffe, die unter REACH in Mengen > 1 tpa, aber < 10 tpa registrierte sind und ebenfalls bisher nicht in der EU reguliert sind. Diese Prioritätskategorie B umfasst 142 einzigartige chemische Strukturen (die zu 162 registrierten Stoffen gehören). Die dritte Prioritätskategorie C umfasst PMT/vPvM-Stoffen, die bereits irgendeiner EU-Regulierung unterliegen. Diese umfasst 29 einzigartige chemische Strukturen (die zu 53 registrierten Stoffen gehören).

Innerhalb jeder dieser drei Prioritätskategorie wurde mit Hilfe zusätzlicher Faktoren eine Unterpriorisierung vorgenommen. Dazu gehörten z.B. die Emissions- und Umweltexpositionswahrscheinlichkeit („REACH emission likelihood “), Umweltmonitoringdaten, die Zusammensetzung des Gemischs und die Volatilität.

Die UBA-Liste der PMT/vPvM-Stoffe in der REACH-Registrierungsdatenbank unterstützt Registranten und Nachgeschaltete Anwender (DSU) dabei, sofort Maßnahmen zur Reduzierung und Minimierung von Emissionen während des gesamten Lebenszyklus dieser Stoffe zu ergreifen. Die Registranten dieser Stoffe werden aufgefordert, fehlende Persistenz- oder Log-KOC-Tests sowie fehlende Analytikmethoden und -standards für ein Monitoring dieser Stoffe in der aquatischen Umwelt in ihrem REACH-Registrierungsdossier anzugeben. Für die vPvM-Stoffe sowie für die 421 Stoffe in Anhang A, die zwar persistent und mobil sind, aber keine valide Schlussfolgerungen für das T-Kriterium haben, wird eine vollständige Bewertung der Toxizität unter Berücksichtigung der langfristigen oralen Exposition empfohlen.

Lokale Behörden auf der Ebene der Wassereinzugsgebiete sollten die UBA-Liste mit PMT/vPvM-Stoffe in der REACH-Registrierungsdatenbank verwenden, um Hersteller, Importeure und Nachgeschaltete Anwender der Stoffe zu kontaktieren, damit sie Maßnahmen zur Kontrolle der Emissionen entwickeln können. Das kann z.B. eine Unterstützung der Kommunikation zwischen den Anwendern und Emittenten von PMT/vPvM-Stoffen und den mit dem Monitoring oder Sanierung dieser Stoffe betrauten Wasserversorgungsunternehmen sein. Für die Behörden der Mitgliedstaaten (CA), die Europäische Chemikalienagentur (ECHA) und die Europäische Kommission (EC) liefert die UBA-Liste mit PMT/vPvM-Stoffen in der REACH-Registrierungsdatenbank Kandidaten für die Identifizierung als besonders besorgniserregender Stoff (SVHC) im Rahmen der REACH-Verordnung und für eine Einstufungen in die neuen Gefahrenklassen PMT und vPvM im Rahmen der CLP-Verordnung.

This report is part of research project (FKZ 3719 65 408 0) that started in 2019 to address several aims related to the implementation and utilization of the PMT/vPvM criteria to assist REACH registrants, regulators, researchers and the water sector to help develop strategies for managing these hazardous substances. The key results of this project are presented in four reports:

Arp, H.P.H., Hale, S.E. (2023):
REACH: Guidance and Methods for the Identification and Assessment of PMT/vPvM Substances.
UBA TEXTE 19/2023. Neumann, M., Schliebner, I. [ed.], ISSN 1862-4804. German Environment Agency (UBA), Dessau-Roßlau, Germany, 66 pages
https://www.umweltbundesamt.de/publikationen/reach-guidance-methods-for-the-identification

Arp, H.P.H., Hale, S.E., Neumann, M. (2023):
PMT/vPvM assessment of REACH registered Substances Detected in Wastewater Treatment Plant Effluent, Freshwater Resources and Drinking Water.
UBA TEXTE 20/2023. Neumann, M., Schliebner, I. [ed.], ISSN 1862-4804 German Environment Agency (UBA), Dessau-Roßlau, Germany, 259 pages
https://www.umweltbundesamt.de/publikationen/pmtvpvm-assessment-of-reach-registered-substances

Arp, H.P.H., Hale, S.E., Schliebner, I., Neumann, M. (2023):
Prioritised PMT/vPvM substances in the REACH registration database.
UBA TEXTE 21/2023. Neumann, M., Schliebner, I. [ed.], ISSN 1862-4804. German Environment Agency (UBA), Dessau-Roßlau, Germany, 185 pages
https://www.umweltbundesamt.de/publikationen/prioritised-pmtvpvm-substances-in-the-reach

Arp, H.P.H., Hale, S.E., Borchers, U., Valkov V., Wiegand, L., Zahn, D., Neuwald, I., Nödler, K. Scheurer, M. (2023):
A prioritization framework for PMT/vPvM Substances under REACH for registrants, regulators, researchers and the water sector.
UBA TEXTE 22/2023. Neumann, M., Schliebner, I. [ed.], ISSN 1862-4804. German Environment Agency (UBA), Dessau-Roßlau, Germany, 238 pages
https://www.umweltbundesamt.de/publikationen/a-prioritization-framework-for-pmtvpvm-substances

This report (UBA TEXTE 21/2023) is the third in the series, which presents the UBA list of prioritized PMT/vPvM substances in the REACH registration database. The other three reports present: updated guidance and methods for the identification and assessment of PMT/vPvM substances registered under REACH (UBA TEXTE 19/2023); an investigation of the number of substances detected in six water media that are in the REACH registration database and meet the PMT/vPvM criteria (UBA TEXTE 20/2023); and, a prioritization framework for PMT/vPvM substances under REACH for identifying which PMT/vPvM substances need the most urgent attention (UBA TEXTE 22/2023).

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1 Introduction

The European Green Deal (European Commission, 2019) sets an ambitious zero pollution vision for 2050. The overall objective is to reduce pollution to achieve a toxic-free environment. The Chemicals Strategy for Sustainability Towards a Toxic Free Environment contributes towards the achievement of the Zero Pollution Ambition (European Commission, 2021a). In addition, the European Union already has one of the most comprehensive and ambitious legislative frameworks on chemicals globally. Under the REACH regulation (EC) No 1907/2006, industry must demonstrate in their registration dossiers the safe use of substances over their entire life cycle. Additionally, the CLP regulation (EC) No 1272/2008 ensures that substances or mixtures displaying certain properties are given a hazardous classification.

At the time of writing, more than 100.000 registrations have been made with ECHA for about 23.000 substances. 239 entries have been included in the candidate list of substances of very high concern (SVHC), and 54 entries in the authorisation list in Annex XIV of REACH (ECHA, 2022). In 2019, perfluorobutanesulfonic acid (PFBS) and 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)-propanoic acid (HFPO-DA, trade name GenX) were identified as SVHC, and in 2021 1,4-Dioxane was also identified. These substances were identified as SVHC because of their persistent, mobile and toxic (PMT) substance properties and very persistent and very mobile (vPvM) substance properties, respectively.

In order to better protect the environment, the German Environment Agency (UBA) is of the opinion that the simplified procedure for identifying a SVHC based on a harmonised classification under CLP should be extended to new hazard classes, like PMT and vPvM (UBA, 2022).

UBA continuously supports and assists industry in fulfilling their obligation under REACH to guarantee safe use of their registered substances. For identified PMT/vPvM substances, manufacturers, importers and downstream users can immediately act to reduce or prevent emissions into the aquatic environment. For instance, safer alternatives could be considered or risk management measures (RMM) could be put into place to minimise emissions during the whole life cycle of the substance.

In 2019 UBA published the results of a PMT/vPvM assessment for all substances registered under REACH as of May 2017 (Arp and Hale, 2019: UBA TEXTE 126/2019).

This report presents the first update of the UBA list of PMT/vPvM substances in the REACH registration database. The underlying PMT/vPvM assessment now includes all substances registered under REACH as of September 2019 (Arp and Hale, 2023). As new substances are continuously being added to the REACH registration database, it is foreseeable that UBA may update this list in the future.

2 Updating the UBA list

2.1 The PMT/vPvM criteria

The German Environment Agency (UBA) began scientifically and technically developing criteria under REACH for substances considered persistent, mobile and toxic (PMT) or very persistent and very mobile (vPvM) in 2009 (Neumann and Schliebner, 2019). The European Commission (EC) stated in 2020 that they aimed to adopt the PMT/vPvM criteria in REACH for the identification of SVHCs and in the CLP Regulation as new hazard categories (European Commission, 2020). This would pave the way for the adoption of such hazard classes also in the United Nation's Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and in other regions (Jin et al., 2020).

In 2021 the EC published a first draft proposal for PMT/vPvM criteria as new hazard classes in CLP (European Commission, 2021b), which were similar to those included in the delegated amendment published by the EC on the 19th December, 2022 (European Commission, 2022). These criteria are less stringent regarding mobility than the PMT/vPvM criteria proposed in 2019 by UBA, but have identical criteria for persistent (P) and very persistent (vP). The less stringent criteria for mobile (M) and very mobile (vM) reduces the number of persistent and very persistent substances in the REACH registered database that would be classified as PMT/vPvM substances by about 25% (Arp and Hale, 2023). This decrease is due to the following three situations:

- vM -> M: the substance is “vM” according to the criteria proposed in 2019 by UBA, but only “M” according to the criteria proposed in 2021 by the EC.
- M -> not M: the substance is “M” according to the criteria proposed in 2019 by UBA, but only "not M" according to the criteria proposed in 2021 by the EC.
- M -> potential M/vM: the substance is “M” based on weight-of-evidence assessment and using the criteria proposed in 2019 by UBA, but the same weight-of-evidence is insufficient to conclude “M” or “not M” using the criteria proposed in 2021 by the EC; and consequently, only the category “potential M/vM” (defined in Table 1) can be assigned.

The UBA PMT/vPvM substance list in chapter 3 shows which substances meet the criteria proposed in 2019 by UBA and whether the substances would also meet the less stringent criteria proposed in 2021 by the EC.

2.2 The PMT/vPvM assessment

A PMT/vPvM assessment was performed for all REACH registered substances as of September 2019 (Arp and Hale, 2023). Here the PMT/vPvM conclusion and level of data quality for each substance is presented using a traffic light colour scheme together with a text label (see Table 1).

Table 1: Traffic light colour scheme representing the PMT/vPvM conclusion including the corresponding level of data quality

Criteria or PMT/vPvM conclusion	Explanation
Insufficient data	Data missing or data quality too poor or inconsistent to make a screening level assessment
vP or vM	High quality data or sufficient weight-of-evidence that the criteria for vP or vM are met
vPvM	High quality data or sufficient weight-of-evidence that the criteria for vP and vM are met
vPvM & PMT	High quality data or sufficient weight-of-evidence that the criteria for vP, vM and T criteria are met
P, M or T	High quality data or sufficient weight-of-evidence that the criteria for P, M or T are met.
PMT	High quality data or sufficient weight-of-evidence that the criteria for P, M and T, or vP, M and T or P, vM and T are met
PM	High quality data or sufficient weight-of-evidence that the criteria for P and M, or vP and M, or P and vM are met, but there are no high-quality consensus conclusions that the criteria for T is met.
Potential P/vP++	Sufficient weight-of-evidence that the criteria for P is very likely met, and possibly the criteria for vP is met. This is considered as equivalent to P or in some cases vP when drawing weight-of-evidence conclusions that the criteria for PM, PMT and vPvM are met.
Potential P/vP, Potential M/vM or Potential T	Screening data or low-quality data indicates that the criteria for P/vP, M/vM or T could potentially be met. More high-quality data for sufficient weight-of-evidence is needed to reach a conclusion.
Potential PMT/vPvM	Screening data or low-quality data indicates that the criteria for P/vP and M/vM could potentially be met
Not P, Not M or Not T	High quality data or sufficient weight-of-evidence that the criteria for P, M or T are not met.
Not PMT/vPvM	High quality data or sufficient weight-of-evidence that either the criteria for P and/or M are not met

Source: Arp and Hale (2023)

Table 2 presents a summary of the PMT/vPvM conclusions. As presented in Table 2, there are 343 unique chemical structures (belonging to 474 registered substances) that were assessed as

meeting the PMT/vPvM criteria. In addition, there are another 421unique chemical structures (belonging to 482 registered substances) that did not fulfil the PMT/vPvM criteria but were considered persistent and mobile substances with no high quality consensus conclusions that the criteria for T is met (indicated as PM, encompassing substances that meet the P and M criteria, the vP and M criteria (vPM), or the P and vM criteria (PvM), as defined in Table 1).

The term "unique chemical structures" is used here because the same organic chemical structure can occur in several REACH registered substances (Arp and Hale, 2023). As an example, melamine can be found registered as a mono-constituent substance under REACH (EC 203-615-4), but also as a constituent within 7 additionally registered multi-constituent substances (EC numbers 236-860-0; 239-590-1; 253-575-7; 255-449-7; 403-290-0; 605-959-4; 939-379-0). So, melamine comprises eight registered substances, but is only one unique chemical structure.

Table 2: Total numbers of PMT/vPvM conclusions for all substances in the REACH registered database as of September 2019.

The distribution of PMT/vPvM conclusions is presented based on all unique chemical structures registered under REACH as of September 2019 (left column) and based on only those with registration volumes > 10 tpa (right column) based on publicly available information. Compared are the PMT/vPvM criteria proposed in 2019 by UBA versus the less stringent PMT/vPvM criteria proposed in 2021 by EC.

PMT/vPvM conclusion based on PMT/vPvM criteria proposed in	**REACH substances with registration volumes > 1 tpa** 2019 by UBA vs. 2021 by EC	**REACH substances with registration volumes > 10 tpa** 2019 by UBA vs. 2021 by EC
Total number of substances in the REACH registration database as of September 2019	22400	7782
Total number of unique chemical structures assessed	13405	3893
no PMT/vPvM conclusion or no data	5542	774
Not PMT/vPvM	3595 vs. 4186	1926 vs. 2107
Potential PMT/vPvM	3504 vs. 3071	800 vs. 698
PM (incl. PvM and vPM)	421 vs. 347	201 vs. 175
PMT/vPvM	343 (2.6%) vs. 259 (1.9%)	192 (4.9%) vs. 139 (3.6%)
PMT	68 vs. 68	37 vs. 35
vPvM	131 vs. 98	77 vs. 52
vPvM and PMT	144 vs. 93	78 vs. 52

Source: Data is presented in Arp and Hale (2023)

Table 2 also shows that by using the less stringent PMT/vPvM criteria proposed in 2021 by the EC only 259 unique chemical structures (belonging to 371 registered substances) are classified as PMT/vPvM substances, as compared to 343 when the criteria proposed in 2019 by UBA are used. In addition, only another 347 unique chemical structures (belonging to 389 registered substances) are assessed to be PM, i.e. persistent and mobile substances that lack a high-quality consensus conclusion that the criteria for T is met, using the 2021 criteria proposed by EC, instead of 421 unique chemical structures (belonging to 482 registered substances) that are considered PM using the 2019 criteria proposed by UBA.

2.3 The Prioritization of PMT/vPvM substances

If a single intrinsic substance property causes a chemical to be hazardous, such as for example, a specific toxic endpoint, then the severity of this single intrinsic substance property can be used to rank or prioritize substances. However, when dealing with a hazard that is a combination of several intrinsic substance properties, such as e.g. PBT/vPvB and PMT/vPvM, it is not straightforward to prioritize or rank a list of chemicals based on the severity of the hazard. This is because it is scientifically challenging to weigh the impact of the combined intrinsic substance properties, without assigning a prioritization scheme or value judgement of one of the properties being more important than the other. In particular, a comparison of two fundamentally different properties (such as persistence and toxicity) may not be practical or valid.

The combination of persistence and mobility falls on a spectrum (Gustafson, 1989). Comparing two continuously emitted substances that are both vP (very persistent), but where one is vM (very mobile) and the other is only M (mobile), shows that the mobile substance might reach a drinking water source at a slower rate than the very mobile one. In the long term though, both will result in substantial and poorly reversible exposure. Consequently, the hazard must be evaluated as being identical. Similarly, a continuously emitted substance that is vP and B (very persistent and bioaccumulative) will bioaccumulate slower in the food chain than a substance that is vP and vB. In the long term, both will result in substantial and poorly reversible exposure (Hale et al., 2020). Also in this example, the hazard is identical, and a ranking based on hazard is scientifically not justified.

The severity of toxicity is also not considered sufficient to rank all persistent and mobile substances. Firstly, this is due to the diversity of toxic endpoints, and secondly this is unjustified due to an increasing number of instances when toxicity was identified years after ubiquitous presence and poorly reversible exposure was induced. For example, the vPvM substances PFBS and 1,4-dioxane were officially identified in Europe as meeting the REACH Annex XIII criteria for toxicity because of their ecotoxic and carcinogenic properties, respectively. However this identification occurred several years after their ubiquitous detection in drinking water sources, (Hale et al., 2020), long after it was established that these were persistent and mobile substances being emitted into sources of drinking water. Therefore, the precautionary principle itself prevents further prioritization based on the currently known severity of toxicity.

Consequently, all the 343 identified PMT/vPvM substances within the REACH registration database in this report must be considered of a similar, if not identical hazard to the sources of our drinking water.

Beside intrinsic substance properties, the likelihood of emission is one consideration which can be used for prioritization, since the combination of hazard and exposure determines the risk. One factor that is correlated with the likelihood of emission is production volume, e.g. whether a

substance with registration volumes > 10 tpa. An additional argument for using production volume as a prioritization consideration for PMT/vPvM substances is that, according to Article 14(1) in REACH, a PBT/vPvB assessment is mandatory for substances manufactured and imported in registration volumes > 10 tpa. Exemptions based on Article 14(2) only exist, such as for constituents present at less than 0.1%, on-site or transported isolated intermediates, or substances used for product and process-oriented research and development. A lack of existing regulation in Europe could also be used for not prioritizing such substances, as presumably less attention would currently be given to such substances.

Using these considerations, the UBA list of 343 PMT/vPvM substances can be split into three priority categories:

High-Priority Category A:	PMT/vPvM substances with REACH registration volumes greater than 10 tpa, and not already subject to EU regulations. *This comprises 172 unique chemical structures (belonging to 259 registered substances).*
Moderate-priority Category B:	PMT/vPvM substances with REACH registration volumes greater than 1 tpa but less than 10 tpa, and not already subject to EU regulations. *This comprises 142 unique chemical structures (belonging to 162 registered substances).*
Moderate-priority Category C:	PMT/vPvM substances with REACH registration volumes greater than 1 tpa, and already subject to EU regulations. *This comprises 29 unique chemical structures (belonging to 53 registered substances).*

In Table 3 a comparison of the number of PMT/vPvM substances in these three priority categories is presented for:

- the current UBA list of 343 PMT/vPvM substances in the REACH registration database as of September 2019,
- the previous UBA list of 260 PMT/vPvM substances registered under REACH as of May 2017 (Arp and Hale, 2019), and
- the 259 PMT/vPvM substances that would be classified as such using the less stringent PMT/vPvM criteria proposed 2021 by EC (European Commission, 2021b) based on the REACH registration database as of September 2019.

The UBA list itself is presented in Chapter 3.

Table 3: Total number of PMT/vPvM substances separated into the three priority categories of the UBA list.

Total number of PMT/vPvM substances as unique chemical structures in the REACH registration databases as of May 2017 and as of September 2019 that were assessed to meet the PMT/vPvM criteria proposed in 2019 by UBA versus the PMT/vPvM criteria proposed in 2021 by the EC.

	REACH registration database as of May 2017	REACH registration database as of September 2019	
	assessed with the PMT/vPvM criteria proposed in 2019 by UBA		assessed with the PMT/vPvM criteria proposed in 2021 by EC
Total number of PMT/vPvM substances (unique chemical structures)	260	343 (belonging to 474 registered substances)	259 (belonging to 371 registered substances)
High-Priority Category A	129	172 (belonging to 259 registered substances)	122 (belonging to 198 registered substances)
Moderate-Priority Category B	108	142 (belonging to 162 registered substances)	113 (belonging to 130 registered substances)
Moderate-Priority Category C	21	29 (belonging to 53 registered substances)	24 (belonging to 43 registered substances)
Reference	Arp & Hale (2019) REACH registration database May 2017	Assessment guidance: Arp & Hale (2023) Substance list this report REACH registration database September 2019	

Within each of these three priority categories presented in Table 3, a further sub-prioritization was applied based on additional indicators of the emission likelihood and environmental exposure likelihood, including the "REACH emission likelihood category" (described below), environmental monitoring data, mixture composition, and volatility. These considerations were used to rank the PMT/vPvM substances within each priority category as follows:

Top rank: -"REACH emission likelihood category" of "very high" and "high",
- known detection data within drinking water relevant sources.

2nd rank: -"REACH emission likelihood category" of "very high" and "high",
-not present as a mixture,
-not considered highly volatile.

3rd rank: -"REACH emission likelihood category" of "medium" and "low",
-known detection data within drinking water relevant sources,
-not present as a mixture,
-not considered highly volatile.

4th rank: -substances present in a mixture or of uncertain composition.

5th rank: -highly volatile substances.

The "REACH Emission Likelihood category" (Arp and Hale, 2019) as presented in Table 4, is based on a combination of monitoring data, REACH registration information and the calculated Emission-Score (E-Score) (Schulze et al., 2018). If a substance is registered under REACH as a non-intermediate and has an E-score above the median value, its "REACH Emission Likelihood category" was considered "high"; if additionally, the substance has already been detected in drinking water, raw water, bank filtrate or groundwater, its "REACH Emission Likelihood category" was considered "very high". The data sources for the literature review of monitoring data can be found in Arp et al., (2023). For the remaining REACH substances, the "REACH Emission Likelihood category" was considered "medium" if monitoring data in these drinking water relevant media were available. For all remaining substances and otherwise the "REACH Emission Likelihood category" were considered "low" (Table 4).

Table 4: REACH emission likelihood category assignment

REACH emission likelihood category	Detected in drinking water, raw water, bank filtrate or ground water	Registration type in REACH	E-Score
Very High	Yes	Full	Top 50th percentile
	-	-	-
High	No	Full	Top 50th percentile
	-	-	-
Medium	Yes	Full	Lower 50th percentile
	Yes	Intermediate	-
Low	No	Full	Lower 50th percentile
	No	Intermediate	-

Substances present in a mixture or substances of uncertain composition (e.g. reaction mixtures, or blends of diverse congeners) were down prioritized based on their complexity (e.g. constituents within having various mobility and toxicity, allowing for the possibility of the toxic substances being different from the persistent and mobile ones within the mixture).

Substances that are highly volatile were down prioritized based on the consideration that they may be removed during drinking water treatment using the standard technique of aeration (i.e. passing large amounts of air through water and venting the air outside). However, though volatility decreases the likelihood of exposure, it does not decrease the hazard, as not all raw water sources undergo aeration (e.g. private groundwater wells). Also, because volatility does not always lead to atmospheric degradation, poorly irreversible exposure of some PMT/vPvM substances via rain water may occur (Cousins et al., 2022; Freeling et al., 2020). Substances labelled as "volatile" in these lists have a dimensionless air-water partitioning coefficient, K_{aw} (L_{water}/L_{air}) greater than 1, meaning that at air-water equilibrium the air concentration would be larger than the water concentration. K_{aw} values were obtained or estimated from the UFZ-LSER database, accessed October 2020 (Ulrich et al., 2017).

3 The UBA list: 343 PMT/vPvM substances in the REACH registration data base as of September 2019

The UBA list is split into three priority categories: High-Priority Category A (Table 5), Moderate-Priority Category B (Table 6) and Moderate-Priority Category C (Table 7). Each row presents one unique chemical structure. A description of the columns is as follows:

Column 1 to 3: Chemical Identifiers – The CAS, EC and full name of one REACH registered substance containing the unique chemical structure

Column 4: Other REACH substances & precursors – uses the formatting (x)-yyy

yyy is given in the priority EC, CAS if no EC, and InChiKey if no CAS

(x) can be: (p) = mono-constituent substances;
(s#) = multi-constituent substance/salt, where if the number is 1 it is the heaviest organic constituent in the mixture, 2 is the second heaviest (or equally heavy), etc.
(t#) = refers to known the transformation products of yyy, with #=1 being the heaviest transformation product, #=2 the second heaviest, (t#-#) refers to second step transformation products, e.g. t1-2 is the second transformation product of the t1 transformation product of the yyy).

Column 5 to 6: The PMT/vPvM Conclusion – The PMT/vPvM conclusion based on the PMT/vPvM criteria proposed 2019 by UBA versus the PMT/vPvM conclusion based on the PMT/vPvM criteria proposed 2021 by EC are presented. Note: Any discrepancy is exclusively due to the different criteria for M and for vM (see chapter 2.1). In brackets an explanation on how the change in the mobility assessment impacted the PMT/vPvM conclusion is given. "vP-WoE" means "vP based on weight-of-evidence" and corresponds to the weight-of-evidence conclusion "Potential P/vP++" (see Table 1 as well as Arp and Hale (2023) for more information).

Column 7: P-rationale – The P/vP conclusion (P, vP or "Potential P/P++") and assessment (data or evidence to support this conclusion).Note: Measured max $t_{1/2}$ is used directly for the persistency assessment while "est. $t_{1/2}$" refers to estimated half-life in water using a QSAR with errors of a factor 10 and is used only as part of weight-of-evidence (Arp and Hale, 2023).

Column 8: M-rationale –The M/vM conclusion (M, vM, or "Potential M/vM") and assessment (data (log K_{OC} if available) or weight-of-evidence (log K_{OW}/log D_{OW}) to support this conclusion). Note: The terms "(2a), (2b), (2c)" refer to a weight-of-evidence approach (Arp and Hale, 2023).

Column 9: T-rationale – The T conclusion (T, "Potential T", "Not T") and assessment (data or evidence to support this conclusion). Note: Carc = carcinogenic; Mut = mutagenic; Rep = Reprotoxic; STOT-RE = Specific target organ toxicity; "Under_Asses" = Under assessment by ECHA; "BroadConsensus" = Broad consensus according to ECHA, "Minority Opinion" = Minority opinion according to ECHA. "Pro. S.P. ED" = 2014 list from ECHA of suspected Endocrine Disruptors, EcoTox = meets the ecotoxicity criteria for T; DNEL = Derived no-effect level; Cramer Cl. III = Crammer class III indication of "Potential T" (Arp and Hale, 2023).

Column 10: Emission index – Chapter 2.3 and Table 4

Column 11: Detection (ref index) – Information based on a literature review (Arp et al., 2023b) on chemicals detected in drinking water relevant media. Note: SW = surface water, WW = wastewater, DW = drinking water, GW = groundwater, RW = raw water, BF = Bank filtrate.

3.1 High-Priority Category A (172 unique chemical structures belonging to 259 registered substances)

Table 5. PMT/vPvM substances with REACH registration volumes greater than 10 tpa, and not already subject to EU regulations

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
108-78-1	203-615-4	Melamine	(p)203-615-4; (s1)236-860-0; (s1)239-590-1; (s1)253-575-7; (s1)255-449-7; (s1)403-290-0; (s2)605-959-4; (s2)939-379-0	vPvM & PMT	vPvM & PMT	vP: No degradation in a OECD TG 309 (Hofman-Caris and Claßen, 2020). Calculated half-life melamine in water: >10.000 days; measured max t1/2.max(d) in soil = 913 days (eChemPortal database)	UBA: vM EC: vM exp log Koc=1.1	STOTE RE 2 (nephrotoxic in combination with cyanuric acid)	very high	WW: - SW: max 1 000 ng/L (S02,S01,S04) DW: max 2 000 ng/L (D15) GW: max 770 ng/L (G13,G08) RW: - BF: -
106-93-4	203-444-5	1,2-dibromoethane		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 30d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM exp log Koc=0.1	(Carc1ab) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008) (Pro.S.P._ED)	very high	WW: - SW: - DW: - GW: max 500 ng/L (G06) RW: - BF: -
76-05-1	200-929-3	Trifluoroacetic acid	(s1)220-877-5; (s2)939-998-6; (p)200-929-3	vPvM	vPvM	Potential P/vP++: TFA, estimated t1/2 (error factor 10) = 53d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), available QSARs and no biodeg. observed in majority of biodegradation screen tests e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=-0.8	Cramer Cl. III	very high	WW: - SW: max 100 000 ng/L (S05) DW: max 20 000 ng/L (D19,D18,D21,D12) GW: max 123 ng/L (G09) RW: - BF: max 20 000 ng/L (B06)
123-91-1	204-661-8	1,4-dioxane	(p)204-661-8; (s2)944-082-4	vPvM & PMT	vPvM & PMT	vP: No degradation in a OECD TG 309 (Hofman-Caris and Claßen, 2020), calculated half-life 1,4-dioxane: >10.000 days. No significant biodegradation in 301F test.	UBA: vM EC: vM min Dow=-0.4 (2a)	(Carc2)	very high	WW: - SW: max 3 537 ng/L (S01) DW: max 770 ng/L (D18,D11) GW: - RW: max 1 000 ng/L (R05) BF: max 1 467 ng/L (B01)

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
119-61-9	204-337-6	Benzophenone		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: P discussion has no current consensus, REACH dossier evaluations favour screening tests showing readily biodegradation, but results from screening tests are wide spread. There is more discussion on this from IARC-WHO (https://monographs.iarc.who.int/wp-content/uploads/2018/06/mono101-007.pdf). From this study, estimated t1/2 (error factor 10) = 35d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M exp log Koc=2.7	(SINlist: For Benzophenone carcinogenic effects have been reported. It is potentially persistent and has been found in the environment. Its derivates are potential endocrine disruptors.) (Pro.S.P._ED)	very high	WW: - SW: max 221 ng/L (S01) DW: max 260 ng/L (D07) GW: - RW: - BF: -
78-87-5	201-152-2	1,2-dichloropropane	(p)201-152-2; (p)904-304-2	vPvM & PMT	vPvM & PMT	Potential P/vP++: P data for this substance is variable and difficult to conclude; however, its identification in monitoring studies in DW and GW indicates it is persistent enough.	UBA: vM EC: vM exp log Koc=1.7	(Carc1ab) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	very high	WW: - SW: max 6 ng/L (S01) DW: max 1 710 ng/L (D02) GW: max 10 000 ng/L (G06) RW: max 670 ng/L (R05) BF: -
75-00-3	200-830-5	Chloroethane	(p)200-830-5; (t1-1)200-756-3	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 24d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), available QSARs and no biodeg. observed in majority of biodegradation screen tests e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=0.8	(Carc2)	very high	WW: - SW: - DW: - GW: max 5 000 ng/L (G06) RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
75-35-4	200-864-0	1,1-dichloroethylene		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 36d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), available QSARs and no biodeg. observed in majority of biodegradation screen tests e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.4	(Carc2)	very high	WW: - SW: max 13 ng/L (S01) DW: max 100 ng/L (D18) GW: max 10 000 ng/L (G06) RW: max 104 ng/L (R05) BF: -
80-08-0	201-248-4	Dapsone		vPvM & PMT	vPvM & PMT	vP: No significant biodegradation in 301D tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.8	(EDC_UnderAssess) (Pro.S.P._ED)	very high	WW: - SW: max 10 ng/L (S06) DW: detected (D22) GW: - RW: - BF: -
18559-94-9	242-424-0	Salbutamol		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 19d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM exp log Koc=-0.9	(Pro.S.P._ED)	very high	WW: max 8 100 ng/L (W12) SW: max 480 ng/L (S06,S01) DW: - GW: max 9 ng/L (G07) RW: max 86 ng/L (R04) BF: -
21615-47-4	244-479-6	Ammonium undecafluorohexanoate		vPvM & PMT	vPvM & PMT	vP: short-chain PFAS, PFAS read-across and estimated t1/2 (error factor 10) = 1048d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.8	(read-across PFAS)	very high	WW: max 23 800 ng/L (W08,W01,W08) SW: max 72 ng/L (S01) DW: max 25 ng/L (D18,D06,D05,D01) GW: - RW: max 28 ng/L (R02) BF: -
95-14-7	202-394-1	Benzotriazole		vPvM & PMT	vPvM & PMT	vP: No degradation in a OECD TG 309 (Hofman-Caris and Claßen, 2020). Calculated half-life was 1Hbenzotriazole: >10.000 days and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.5	(EDC_UnderAssess)	very high	WW: max 221 000 ng/L (W08) SW: max 18 303 ng/L (S01) DW: max 200 ng/L (D10) GW: max 1 548 ng/L (G01,G02,G13) RW: max 172 ng/L (R05) BF: max 200 ng/L (B02)

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
51-28-5	200-087-7	2,4-dinitrophenol	(p)200-087-7; (t1-2)201-865-9	vPvM & PMT	vPvM & PMT	Potential P/vP++: this is not persistent in soil, but data in some REACH dossiers suggests the vP criteria in fresh water is met. Further, evidence of persistency is its discovery in monitoring studies (UBA, 2019), consistent indications of P across all tested QSARs, and this substance was also considered prioritized by Nödler et al. (2019) as resistant to drinking water treatment.	UBA: vM EC: vM exp log Koc=1.1	(DNEL) (Pro.S.P._ED)	very high	WW: max 474 ng/L (W08) SW: max 845 ng/L (S01) DW: max 333 000 ng/L (D02) GW: max 122 ng/L (G01) RW: - BF: -
108-80-5	203-618-0	Cyanuric acid	(s1)221-255-6; ; (p)203-618-0; (s1)246-279-4; (p)931-274-8; (s2)253-575-7	vPvM & PMT	vPvM & PMT	vP: vP Assessment for EC 253-575-7, consistent indicators of P, monitored extensively in the environment (Schulze et al. 2019) and in this study in bank filtrate, raw water and drinking water	UBA: vM EC: vM exp log Koc=1.7	STOTE RE (nephrotoxic in combination with melamine)	very high	WW: - SW: max 480 ng/L (S04,S02) DW: max 120 ng/L (D15,D22) GW: detected (G08-SW?) RW: - BF: -
143-24-8	205-594-7	Bis(2-(2-methoxyethoxy)ethyl) ether		vPvM & PMT	vPvM & PMT	vP: REACH Dossier conclusion, est. water t1/2 = 1289d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM exp log Koc=-1.5	(Rep_BroadConsensus)	very high	WW: - SW: max 317 ng/L (S01) DW: detected (D21) GW: max 19 ng/L (G13) RW: max 120 ng/L (R05) BF: max 1 403 ng/L (B01)
102-06-7	203-002-1	1,3-diphenylguanidine	(p)203-002-1; (s1)246-107-8	vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 194d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.5	(Rep2)	very high	WW: - SW: max 10 ng/L (S02,S04) DW: detected (D22) GW: max 10 ng/L (G08) RW: max 30 ng/L (R05) BF: -
834-12-8	212-634-7	Ametryn		vPvM & PMT	PMT (vP, M &T)	vP: measured max t1/2 (d): w=n.d.; s=150(P); sed=1780(vP)	UBA: vM EC: M exp log Koc=2.1	(Ecotox_PMT2019) (Ecotox_Envirotox)	very high	WW: - SW: detected (S02) DW: detected (D02) GW: detected (G05) RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
541-73-1	208-792-1	1,3-dichlorobenzene		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 131d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.4	(Pro.S.P._ED)	very high	WW: - SW: max 5 ng/L (S01) DW: max 100 ng/L (D02) GW: - RW: max 10 ng/L (R05) BF: -
75-65-0	200-889-7	2-methylpropan-2-ol	(p)200-889-7; (p)902-882-0; (t1)216-653-1; (t2)201-557-4; (t1-2)201-557-4; (t2-2)216-653-1	vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 29d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-A (Determination of the "Ready" Biodegradability - Dissolved Organic Carbon (DOC) Die-Away Test); EU Method C.4-A (Determination of the "Ready" Biodegradability - Dissolved Organic Carbon (DOC) Die-Away Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM exp log Koc=-0.3	Cramer Cl. III	very high	WW: - SW: max 4 914 ng/L (S01) DW: - GW: - RW: max 3 100 ng/L (R05) BF: -
78-40-0	201-114-5	Triethyl phosphate		vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 20d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=-0.3	Cramer Cl. III	very high	WW: - SW: max 6 788 ng/L (S01) DW: - GW: - RW: max 70 ng/L (R05) BF: -
29385-43-1	249-596-6	Methyl-1H-benzotriazole		vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 33d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.5	Cramer Cl. III	very high	WW: - SW: - DW: - GW: max 3 ng/L (G13) RW: max 127 ng/L (R05) BF: -
1493-13-6	216-087-5	Trifluoromethanesulphonic acid	(s1)415-540-6; (s2)434-160-1; (s2)609-186-3; (s2)680-002-1; (p)216-087-5; (s1)251-528-5; (s2)432-340-4	vPvM	vPvM	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 67d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the	UBA: vM EC: vM exp log Koc=-0.2	Cramer Cl. III	very high	WW: - SW: detected (S02) DW: max 1 000 ng/L (D13) GW: detected (G08) RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						"Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				
107-66-4	203-509-8	Dibutyl hydrogen phosphate		vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 25d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test) Cited as RG Directive 79/831/ Annex V;EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test) Cited as RG Directive 79/831/ Annex V; OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=0.5	-	very high	WW: - SW: - DW: - GW: - RW: - BF: detected (B04)
97-39-2	202-577-6	1,3-di-o-tolylguanidine	(p)202-577-6; (s2)277-086-3	vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 236d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-4.0 (2a)	(Carc_MinorOpinion) Cramer Cl. III	very high	WW: - SW: max 150 ng/L (S02,S04) DW: detected (D22) GW: max 150 ng/L (G08) RW: - BF: -
461-58-5	207-312-8	Cyanoguanidine		vPvM	vPvM	vP: No significant biodegradation in 301E tests. The REACH PBT assessment evaluates the substance to be very persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=-1.1	Cramer Cl. III	very high	WW: - SW: max 3 000 ng/L (S02) DW: detected (D22) GW: max 1 000 ng/L (G08) RW: - BF: -
5165-97-9	225-948-4	Sodium 2-methyl-2-[(1-oxoallyl)amino]propanesulphonate	(s1)225-948-4; ; (s1)611-646-3; (p)239-268-0; (s1)421-680-9	vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 33d, found in several water samples in Schulze et al. (2019) and consistent indications of P across tested QSARs	UBA: vM EC: vM min Dow=-2.7 (2b)	Cramer Cl. III	very high	WW: - SW: detected (S02) DW: detected (D22) GW: detected (G08) RW: - BF: -
1115-70-4	214-230-6	Metformin hydrochloride		PMT	PMT	P: Metformin can be considered persistent in water	UBA: vM EC: vM	Suspected endocrine disruptor (e.g.	very high	WW: max 92 000 ng/L (W12)

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						according to PBT criteria (water DT50 = 43.3d > 40d) (report from the EMA/86928/2018 Committee for Medicinal Products for Human Use (CHMP))" and majority of biodegradation screen tests, e.g. EPA OTS 796.3260 (Ready Biodegradability: Modified Sturm Test); EPA OTS 796.3260 (Ready Biodegradability: Modified Sturm Test)	min Dow=-3.5 (2c)	Niemuth et al. Aquatic Toxicology (2018), 195, 33-40)		SW: max 2 636 ng/L (S06,S01) DW: max 735 ng/L (D17,D18) GW: max 100 ng/L (G02) RW: - BF: -
77-71-4	201-051-3	5,5-dimethylhydantoin		vPvM	vPvM	vP: measured max t1/2 (d): w=n.d.; s=n.d.; sed=1170(vP)	UBA: vM EC: vM exp log Koc=1.8	Cramer Cl. III	very high	WW: - SW: - DW: - GW: - RW: - BF: detected (B04)
56-93-9	200-300-3	Benzyltrimethylammonium chloride		vPvM	vPvM	Potential P/vP++: Reach dossiers all conclude not P, yet screening tests are ambiguous showing both P and not P, QSARs are consistently pointing to P, and this substance seems frequent in monitoring data of bank filtrate and drinking water	UBA: vM EC: vM min Dow=-2.2 (2c)	Cramer Cl. III	very high	WW: - SW: detected (S02) DW: detected (D22) GW: detected (G08) RW: - BF: -
156-60-5	205-860-2	trans-dichloroethylene		vPvM	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 36d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: M min Dow=1.9 (2a)	Cramer Cl. III	very high	WW: - SW: - DW: - GW: max 10 000 ng/L (G06) RW: max 1 200 ng/L (R05) BF: -
108-90-7	203-628-5	Chlorobenzene	(p)203-628-5; (t1)203-400-5; (t1-1)204-428-0	vPvM	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 28d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: M exp log Koc=2.5	Cramer Cl. III	very high	WW: - SW: - DW: - GW: max 10 000 ng/L (G06) RW: - BF: -
121-82-4	204-500-1	Perhydro-1,3,5-trinitro-1,3,5-triazine		vPvM	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 72d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: M exp log Koc=2.0	Cramer Cl. III	very high	WW: - SW: - DW: max 1 100 ng/L (D02) GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
108-20-3	203-560-6	Diisopropyl ether		vPvM	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 59d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M min Dow=1.6 (2a)	Cramer Cl. III	very high	WW: - SW: - DW: - GW: max 10 000 ng/L (G06) RW: max 128 ng/L (R05) BF: -
2855-13-2	220-666-8	3-aminomethyl-3,5,5-trimethylcyclohexylamine	(p)220-666-8; (s1)289-348-4; (p)700-128-3; (s2)614-657-1	PMT	PMT	P: No significant biodegradation in 301A tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-6.6 (2a)	(Pro.S.P._ED)	very high	WW: - SW: detected (S02) DW: - GW: detected (G08-SW?) RW: - BF: -
96-76-4	202-532-0	2,4-di-tert-butylphenol		PMT	Not PMT/vPvM (P, Not M &T)	P: Conclusion of the PBT working group	UBA: M EC: Not M exp log Koc=3.7	(EDC_UnderAssess) (Pro.S.P._ED)	very high	WW: - SW: - DW: detected (D14) GW: - RW: - BF: -
26787-78-0	248-003-8	Amoxicillin		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 48d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-3.6 (2b)	(STOTRE_BroadConsensus) (Ecotox_Envirotox) (Pro.S.P._ED)	very high	WW: max 30 000 ng/L (W12) SW: max 1 654 ng/L (S06,S03) DW: detected (D16) GW: - RW: - BF: - Note: MW>350
114798-26-4	601-329-8	[2-butyl-4-chloro-1-({4-[2-(2H-1,2,3,4-tetrazol-5-yl)phenyl]phenyl}methyl)-1H-imidazol-5-yl]methanol		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 384d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by	UBA: vM EC: M min Dow=1.0 (2b)	(Rep_BroadConsensus)	very high	WW: max 14 100 ng/L (W02,W12) SW: max 610 ng/L (S06,S01) DW: max 5 ng/L (D17) GW: - RW: max 620 ng/L (R04) BF: - Note: MW>350

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Analysis of Released Carbon Dioxide);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide)				
13674-87-8	237-159-2	Tris[2-chloro-1-(chloromethyl)ethyl] phosphate		vPvM & PMT	PMT (vP, M &T)	vP: estimated t1/2 (error factor 10) = 617d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.6 (Degradation: Chemical Oxygen Demand); EU Method C.5 (Degradation: Biochemical Oxygen Demand); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.6 (Degradation: Chemical Oxygen Demand); EU Method C.5 (Degradation: Biochemical Oxygen Demand); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.2	(Carc2) (SINlist:This substance has been detected in children who are exposed to the chemical through house dust. It is a suspected carcinogen. The substance shows experimental and estimated P and T properties. It is considered to be of equivalent level of concern.)	very high	WW: max 8 600 ng/L (W08) SW: max 2 360 ng/L (S01) DW: max 510 ng/L (D02,D03) GW: - RW: - BF: - Note: MW>350
27619-97-2	248-580-6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctanesulphonic acid	(s1)261-818-3; (p)248-580-6	vPvM	vPvM	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 2 937d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.3	Cramer Cl. III	very high	WW: max 38 ng/L (W01) SW: max 16 ng/L (S01) DW: max 6 ng/L (D01) GW: - RW: - BF: - Note: MW>350
75-71-8	200-893-9	Dichlorodifluoromethane		vPvM	vPvM	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 70d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM exp log Koc=1.2	Cramer Cl. III	very high	WW: - SW: - DW: - GW: max 10 000 ng/L (G06) RW: - BF: - Note: volatile
67-43-6	200-652-8	N-carboxymethyliminobis(ethylenenitrilo)tetra(acetic acid)	(s1)205-391-3; (s1)289-064-0; (s1)813-880-3; (s1)235-627-0; (s1)404-290-3;	vPvM & PMT	vPvM & PMT	vP: No degradation in a OECD TG 309 (Hofman-Caris and Claßen, 2020), calculated half-life DTPA: >67.6 days. , weight-of-evidence by discovery in monitoring studies (UBA, 2019), available QSARs	UBA: vM EC: vM min Dow=-19.5 (2b)	Cramer Cl. III	very high	WW: - SW: - DW: max 9 000 ng/L (D10,D21) GW: max 3 000 ng/L

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
			(s1)902-532-7; (p)200-652-8; (s1)235-979-5; (p)243-136-8; (s1)902-533-2			and no biodeg. observed in majority of biodegradation screen tests e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)				(G02) RW: - BF: - Note: MW>350
100-97-0	202-905-8	Methenamine	(p)202-905-8; (s1)687-538-5	vPvM	vPvM	vP: No degradation in a OECD TG 309 (Hofman-Caris and Claßen, 2020), calculated half-life urotropin: >128 days. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.6 (Degradation: Chemical Oxygen Demand) 1984;EU Method C.6 (Degradation: Chemical Oxygen Demand) 1984; OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test)	UBA: vM EC: vM min Dow=-6.6 (2a)	Cramer Cl. III	very high	WW: - SW: detected (S04) DW: max 520 ng/L (D15) GW: - RW: - BF: -
3622-84-2	222-823-6	N-butylbenzenesulphonamide		vPvM	PM (vP, M & Pot. T)	vP: measured max t1/2 (d): w=985(vP); s=n.d.; sed=n.d.	UBA: vM EC: M min Dow=2.0 (2a)	Cramer Cl. III	very high	WW: - SW: max 888 ng/L (S01) DW: max 50 ng/L (D10) GW: - RW: max 937 ng/L (R05) BF: -
95-50-1	202-425-9	1,2-dichlorobenzene		PMT	Potential PMT/vPvM (vP, Pot.M/vM &T)	vP: measured max t1/2 (d): w=n.d.; s=191(vP); sed=n.d.	UBA: M EC: Pot. M/vM min Dow=3.3 (2a)	(SINlist:1,2-dichlorobenzene is very toxic to aquatic species, it is potentially very persistant and very bioaccumulative and has been detected in environmental and human samples. Therefore, ChemSec considers this to be of equivalent level of	very high	WW: - SW: max 369 ng/L (S01) DW: max 10 ng/L (D02) GW: max 10 000 ng/L (G06) RW: max 100 ng/L (R05) BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
								concern according to the 57f criteria.)		
131-57-7	205-031-5	Oxybenzone		PMT	Not PMT/vPvM (vP, Not M &T)	vP: vP according to Vione et al STOTEN (2013); and consistent indications of P across tested QSARs	UBA: M EC: Not M exp log Koc=3.2	(EDC_UnderAssess) (SINlist:Benzophenone-3 (BP-3) is an endocrine disruptor with estrogenic, antiandrogen and thyroid activity, affecting several body functions including development and immune function. The substance has been found in biomonitoring studies and in human milk and urine. It is categorised as an endocrine disruptor in the EU Commision Database.) (Pro.S.P._ED)	very high	WW: max 121 ng/L (W10) SW: max 39 ng/L (S01) DW: detected (D02) GW: - RW: - BF: -
1222-05-5	214-946-9	1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		PMT	Not PMT/vPvM (vP, Not M &T)	vP: measured max t1/2 (d): w=n.d.; s=239(vP); sed=79(not P)	UBA: M EC: Not M exp log Koc=3.8	(PBT_UnderAssess) (EDC_UnderAssess) (SINlist: For Galaxolide (HHCB) endocrine effects have been reported. It is potentially persistent and bioaccumulative. It has been frequently found in humans and the environment.)	very high	WW: max 2 766 ng/L (W10,W03,W04,W10) SW: max 1 400 ng/L (S01,S03) DW: max 82 ng/L (D02) GW: max 23 000 ng/L (G04,G07) RW: max 3 ng/L (R03) BF: -
109-01-3	203-639-5	1-methylpiperazine		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 29d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed	UBA: vM EC: M exp log Koc=2.9	(StotRE_MinorOpinion)	very high	WW: - SW: - DW: - GW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				RW: - BF: -
3033-62-3	221-220-5	N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)		vPvM	vPvM	vP: All biodegradation results in 301F and 302B imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-5.5 (2a)	Cramer Cl. III	very high	WW: - SW: - DW: - GW: - RW: - BF: -
91-76-9	202-095-6	6-phenyl-1,3,5-triazine-2,4-diyldiamine		vPvM	vPvM	vP: No significant biodegradation in 301C and E tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.4	Cramer Cl. III	very high	WW: - SW: - DW: - GW: - RW: - BF: -
52556-42-0	258-004-5	Sodium 3-(allyloxy)-2-hydroxypropanesulphonate		vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 34d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-1.5 (2a)	Cramer Cl. III	very high	WW: - SW: detected (S02) DW: - GW: - RW: - BF: -
121-03-9	204-445-3	4-nitrotoluene-2-sulphonic acid		vPvM	vPvM	vP: No significant biodegradation in 301E and C tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-1.5 (2a)	(PBT_MinorityOpinion)Cramer Cl. III	very high	WW: - SW: - DW: - GW: - RW: - BF: -
38083-17-9	253-775-4	Climbazole		PMT	Not PMT/vPvM (vP-WoE, Not M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 95d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Not M exp log Koc=3.8	(EDC_UnderAssess) (Ecotox_PMT2019)	very high	WW: - SW: max 190 ng/L (S01,S03) DW: - GW: - RW: - BF: -
126-99-8	204-818-0	2-chlorobuta-1,3-diene		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 27d, weight-of-evidence (this study) based on all known QSARs and	UBA: vM EC: vM exp log Koc=1.4	(Carc1ab) (SINlist: Classified CMR according to Annex	high	WW: - SW: - DW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)		VI of Regulation 1272/2008)		GW: - RW: - BF: -
13472-08-7	236-740-8	2,2'-azobis[2-methylbutyronitrile]		vPvM	PM (vP, M & Pot. T)	vP: SINList vPvM (Chemsec, 2019), "No significant biodegradation in 301D test. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water."	UBA: vM EC: M min Dow=2.1 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
118-79-6	204-278-6	2,4,6-tribromophenol		PMT	Not PMT/vPvM (vP, Not M &T)	vP: measured max t1/2 (d): w=n.d.; s=523(vP); sed=n.d.	UBA: M EC: Not M exp log Koc=3.0	(PBT_UnderAssess) (SINlist:This substance has endocrine disrupting properties. In vitro studies have shown binding to a thyroid hormone transport protein. Animal studies have shown the substance to alter the rate of development and increase abnormalities. In addition it interferes with the synthesis of oestrogen and thyroid hormones.) (Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -
78-90-0	201-155-9	Propylenediamine	(p)201-155-9; (s1)606-377-3	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 13d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=-2.3	(StotRE_MinorOpinion)	high	WW: - SW: - DW: - GW: - RW: - BF: -
75-91-2	200-915-7	tert-butyl hydroperoxide		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 31d, weight-of-evidence (this study) based on all known QSARs and	UBA: vM EC: vM exp log Koc=-0.3	(Mut2)	high	WW: - SW: - DW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				GW: - RW: - BF: -
-	477-690-9	N-(2-nitrophenyl)phosphoric triamide		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 164d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-B (Determination of the "Ready" Biodegradability - Modified OECD Screening Test) 92/69/EWG, C.4-B (OECD Screening)	UBA: vM EC: vM min Dow=-1.9 (2b)	(Rep_BroadConsensus)	high	WW: - SW: - DW: - GW: - RW: - BF: -
88-45-9	201-832-9	2,5-diaminobenzenesulphonic acid		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 280d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.3	(Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -
599-61-1	209-967-5	3,3'-sulphonyldianiline		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 343d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=1.8	(Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -
106-92-3	203-442-4	Allyl 2,3-epoxypropyl ether		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 95d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=-0.3	(Carc2) (Mut2) (Rep2)	high	WW: - SW: - DW: - GW: - RW: - BF: -
4098-71-9	223-861-6	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	(p)223-861-6; (p)931-312-3	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 74d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test) (1992); EU Method C.4-D (Determination of the	UBA: vM EC: vM min Dow=1.0 (2a)	(STOTRE_1_2)	high	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						"Ready" Biodegradability - Manometric Respirometry Test) (1992)				
154279-60-4	679-514-8	4,4'-methylenebis(N-sec-butylcyclohexanamine)		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 88d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-6.0 (2c)	(Ecotox_PMT2019)	high	WW: - SW: - DW: - GW: - RW: - BF: -
85-27-8	480-070-0	4-(1-phenylethyl)benzene-1,3-diol		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 45d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=2.0	(Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -
123312-89-0	602-927-1	pymetrozine (ISO); (E)-4,5-dihydro-6-methyl-4-(3-pyridylmethyleneamino)-1,2,4-triazin-3(2H)-one		vPvM & PMT	vPvM & PMT	vP: measured max t1/2 (d): w=6(not P); s=707(vP); sed=379(vP)	UBA: vM EC: vM exp log Koc=1.0	(Carc2)	high	WW: - SW: - DW: - GW: - RW: - BF: -
3173-72-6	221-641-4	1,5-naphthylene diisocyanate		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 66d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=0.9 (2a)	(STOTRE_1_2)	high	WW: - SW: - DW: - GW: - RW: - BF: -
62-56-6	200-543-5	thiourea; thiocarbamide		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 13d, weight-of-	UBA: vM EC: vM	(Carc2) (Rep2)	high	WW: - SW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	min Dow=-1.6 (2a)			DW: - GW: - RW: - BF: -
646-06-0	211-463-5	1,3-dioxolane		**vPvM & PMT**	**vPvM & PMT**	vP: read-across from 1,4-dioxane	UBA: vM EC: vM exp log Koc=-0.9	(Rep_BroadConsensus)	**high**	WW: - SW: - DW: - GW: - RW: - BF: -
11070-44-3	234-290-7	Tetrahydromethylphthalic anhydride		**vPvM & PMT**	**vPvM & PMT**	Potential P/vP++: estimated t1/2 (error factor 10) = 42d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=1.3 (2a)	(STOTRE_1_2)	**high**	WW: - SW: - DW: - GW: - RW: - BF: -
108-45-2	203-584-7	m-phenylenediamine		**vPvM & PMT**	**vPvM & PMT**	Potential P/vP++: estimated t1/2 (error factor 10) = 109d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-1.3 (2c)	(Mut2)	**high**	WW: - SW: - DW: - GW: - RW: - BF: -
68479-98-1	270-877-4	Diethylmethylbenzenediamine		**vPvM & PMT**	**vPvM & PMT**	Potential P/vP++: estimated t1/2 (error factor 10) = 146d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)	UBA: vM EC: vM min Dow=0.6 (2a)	(EDC_UnderAssess) (Pro.S.P._ED)	**high**	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
127-52-6	204-847-9	Sodium N-chlorobenzenesulphonamide		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 53d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-A (Determination of the "Ready" Biodegradability - Dissolved Organic Carbon (DOC) Die-Away Test); EU Method C.4-A (Determination of the "Ready" Biodegradability - Dissolved Organic Carbon (DOC) Die-Away Test)	UBA: vM EC: vM min Dow=0.1 (2b)	(STOTRE_BroadConsensus)	high	WW: - SW: - DW: - GW: - RW: - BF: -
111-44-4	203-870-1	Bis(2-chloroethyl) ether		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 88d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.9	(Carc2)	high	WW: - SW: - DW: - GW: - RW: - BF: -
119-64-2	204-340-2	1,2,3,4-tetrahydronaphthalene		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 41d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.7	(Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -
214417-91-1	435-860-1	N'-(1,3-dimethylbutylidene)-3-hydroxy-2-naphthohydrazide		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 111d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M min Dow=0.6 (2b)	(Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -
818-08-6	212-449-1	Dibutyltin oxide		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 24d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline	UBA: vM EC: M min Dow=1.5 (2a)	(Rep_BroadConsensus) (DNEL)	high	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						301 F (Ready Biodegradability: Manometric Respirometry Test)				
25134-21-8	246-644-8	1,2,3,6-tetrahydromethyl-3,6-methanophthalic anhydride		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 44d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M min Dow=1.7 (2a)	(STOTRE_BroadConsensus)	high	WW: - SW: - DW: - GW: - RW: - BF: -
2210-79-9	218-645-3	2,3-epoxypropyl o-tolyl ether		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 32d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M exp log Koc=2.3	(Mut2)	high	WW: - SW: - DW: - GW: - RW: - BF: -
101-72-4	202-969-7	N-isopropyl-N'-phenyl-p-phenylenediamine		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 290d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M min Dow=0.4 (2c)	(Ecotox_PMT2019)	high	WW: - SW: - DW: - GW: - RW: - BF: -
66068-84-6	266-100-3	4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 28d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=2.4 (2a)	(Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -
99-99-0	202-808-0	4-nitrotoluene		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 66d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M min Dow=2.4 (2a)	(Pro.S.P._ED)	high	WW: - SW: max 38 ng/L (S01) DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
90-72-2	202-013-9	2,4,6-tris(dimethylaminomethyl)phenol		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 812d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-8.9 (2c)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
1190931-27-1	682-238-0	Ammonium difluoro{[2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl]oxy}acetate	(s1)682-238-0; (s1)682-240-1; (p)682-239-6	vPvM	vPvM	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 18 579d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-A (Determination of the "Ready" Biodegradability - Dissolved Organic Carbon (DOC) Die-Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); EU Method C.4-A (Determination of the "Ready" Biodegradability - Dissolved Organic Carbon (DOC) Die-Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test)	UBA: vM EC: vM exp log Koc=1.0	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
81334-34-1	617-219-8	2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridine carboxylate		vPvM	vPvM	vP: measured max t1/2 (d): w=n.d.; s=2 154(vP); sed=n.d.	UBA: vM EC: vM exp log Koc=1.5	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
33329-35-0	251-459-0	N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethylpropane-1,3-diamine		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 981d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-6.1 (2c)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
26566-95-0	247-810-2	Zinc bis[O-(2-ethylhexyl)] bis[O-(isobutyl)] bis(dithiophosphate)		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1484d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.6 (Degradation: Chemical Oxygen Demand); EU Method C.6 (Degradation: Chemical Oxygen Demand); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD	UBA: vM EC: vM exp log Koc=1.4	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				
153719-23-4	428-650-4	thiamethoxam (ISO); 3-(2-chloro-thiazol-5-ylmethyl)-5-methyl[1,3,5]oxadiazinan-4-ylidene-N-nitroamine		vPvM	vPvM	vP: measured max t1/2 (d): w=97(vP); s=907(vP); sed=41(not P)	UBA: vM EC: vM min Dow=-0.1 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
78-67-1	201-132-3	2,2'-dimethyl-2,2'-azodipropiononitrile		vPvM	vPvM	vP: measured max t1/2 (d): w=950(vP); s=n.d.; sed=n.d.	UBA: vM EC: vM min Dow=1.1 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
58594-72-2	261-351-5	1-[2-(allyloxy)ethyl-2-(2,4-dichlorophenyl)-1H-imidazolium hydrogen sulphate		vPvM	vPvM	vP: measured max t1/2 (d): w=n.d.; s=171(P); sed=187(vP)	UBA: vM EC: vM min Dow=1.3 (2a)	Cramer Cl. III	high	WW: - SW: max 263 ng/L (S01) DW: - GW: - RW: - BF: -
66423-13-0	266-358-7	Octyl (R)-2-(4-chloro-2-methylphenoxy)propionate		vPvM	vPvM	vP: measured max t1/2 (d): w=67(vP); s=n.d.; sed=n.d.	UBA: vM EC: vM exp log Koc=1.9	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
3030-47-5	221-201-1	Bis(2-dimethylaminoethyl)(methyl)amine		vPvM	vPvM	vP: All biodegradation results in 301C and E and 302B imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-7.2 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
358-23-6	206-616-8	Trifluoromethanesulphonic anhydride		vPvM	vPvM	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 731d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability:	UBA: vM EC: vM min Dow=0.3 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				
540-88-5	208-760-7	tert-butyl acetate		vPvM	vPvM	vP: measured max t1/2 (d): w=648(vP); s=n.d.; sed=n.d.	UBA: vM EC: vM exp log Koc=0.8	-	high	WW: - SW: - DW: - GW: - RW: - BF: -
3576-88-3	222-695-1	2,2'-iminobis[4,6-diamino-1,3,5-triazine]		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1445d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-3.4 (2c)	Cramer Cl. III	high	WW: - SW: max 20 ng/L (S04) DW: - GW: - RW: - BF: -
6425-39-4	229-194-7	2,2'-dimorpholinyldiethyl ether		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1053d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-2.3 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
861229-15-4	630-324-3	2-Ethylhexyl (R)-2-(2-methyl-4chlorophenoxy)propionate		vPvM	PM (vP, M & Pot. T)	vP: measured max t1/2 (d): w=61(vP); s=8(not P); sed=61(not P)	UBA: vM EC: M exp log Koc=2.1	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
113-48-4	204-029-1	N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide		vPvM	PM (vP, M & Pot. T)	vP: measured max t1/2 (d): w=n.d.; s=388(vP); sed=n.d.	UBA: vM EC: M exp log Koc=2.8	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
1194-65-6	214-787-5	Dichlobenil		vPvM	PM (vP, M & Pot. T)	vP: measured max t1/2 (d): w=1040(vP); s=324(vP); sed=n.d.	UBA: vM EC: M exp log Koc=2.4	Cramer Cl. III	high	WW: - SW: - DW: - GW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
										RW: - BF: -
4065-45-6	223-772-2	Sulisobenzone	(s1)457-010-7; (s2)442-880-2; (s2)457-900-5; (p)223-772-2	PMT	PMT	P: All biodegradation results in 301F and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=2.0	(Pro.S.P._ED)	high	WW: - SW: max 457 ng/L (S01) DW: - GW: - RW: - BF: -
761-65-9	212-090-0	N,N-dibutylformamide		PMT	PMT	P: ECHA PBT Broad consensus	UBA: vM EC: M min Dow=2.0 (2a)	(PBT_BroadConses)	high	WW: - SW: - DW: - GW: - RW: - BF: -
123-30-8	204-616-2	4-aminophenol	(p)204-616-2; (s3)274-987-3; (t1)209-080-3; (t1)203-157-5	PMT	PMT	P: No significant biodegradation in 301C tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=0.5	(Mut2)	high	WW: - SW: - DW: - GW: - RW: - BF: -
117-08-8	204-171-4	Tetrachlorophthalic anhydride		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 293d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Pot. M/vM min Dow=3.1 (2a)	(STOTRE_1_2)	high	WW: - SW: - DW: - GW: - RW: - BF: -
2162-73-4	218-485-4	2,4,6-triisopropyl-m-phenylene diisocyanate		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 223d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	(STOTRE_BroadConsensus)	high	WW: - SW: - DW: - GW: - RW: - BF: -
345-92-6	206-466-3	Bis(4-fluorophenyl) ketone		PMT	Potential PMT/vPvM (vP, Pot.M/vM &T)	vP: estimated t1/2 (error factor 10) = 1369d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline	UBA: M EC: Pot. M/vM min Dow=3.4 (2a)	(Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						301 F (Ready Biodegradability: Manometric Respirometry Test)				
-	700-736-9	(1S,4R,4aS,9aR)-4,4a,9,9a-tetrahydro-1H-1,4-methanofluorene		PMT	Potential PMT/vPvM (P, Pot.M/vM &T)	P: ECHA PBT Broad consensus	UBA: M EC: Pot. M/vM min Dow=3.3 (2a)	(PBT_BroadConses)	high	WW: - SW: - DW: - GW: - RW: - BF: -
4979-32-2	225-625-8	N,N-dicyclohexylbenzothiazole-2-sulphenamide		PMT	Not PMT/vPvM (vP, Not M &T)	vP: measured max t1/2 (d): w=n.d.; s=1000(vP); sed=n.d.	UBA: M EC: Not M exp log Koc=3.0	(PBT_BroadConses)	high	WW: - SW: - DW: - GW: - RW: - BF: -
79-74-3	201-222-2	2,5-di-tert-pentylhydroquinone		PMT	Not PMT/vPvM (vP-WoE, Not M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 55d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Not M exp log Koc=3.7	(PBT_UnderAssess) (Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -
122-39-4	204-539-4	Diphenylamine	(p)204-539-4; (s1)500-011-5	PMT	Not PMT/vPvM (vP-WoE, Not M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 67d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Not M exp log Koc=3.4	(Pro.S.P._ED)	high	WW: - SW: max 2 039 ng/L (S01) DW: - GW: - RW: - BF: -
28299-41-4	248-948-6	Ditolyl ether		PMT	Not PMT/vPvM (vP-WoE, Not M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 32d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test);	UBA: M EC: Not M exp log Koc=3.7	(PBT_UnderAssess)	high	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				
80-07-9	201-247-9	Bis(4-chlorophenyl) sulphone		PMT	Not PMT/vPvM (vP, Not M &T)	vP: measured max t1/2 (d): w=n.d.; s=n.d.; sed=1287(vP)	UBA: M EC: Not M exp log Koc=3.5	(PBT_UnderAssess)	high	WW: - SW: - DW: - GW: - RW: - BF: -
61788-44-1	262-975-0	Phenol, styrenated		PMT	Not PMT/vPvM (vP-WoE, Not M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 25d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	UBA: M EC: Not M exp log Koc=3.1	(PBT_UnderAssess) (EDC_UnderAssess)	high	WW: - SW: - DW: - GW: - RW: - BF: -
599-64-4	209-968-0	4-(α,α-dimethylbenzyl)phenol		PMT	Not PMT/vPvM (vP-WoE, Not M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 53d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Not M exp log Koc=3.4	(Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -
80-43-3	201-279-3	Bis(α,α-dimethylbenzyl) peroxide		PMT	Not PMT/vPvM (vP-WoE, Not M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 139d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed	UBA: M EC: Not M exp log Koc=4.0	(PBT_UnderAssess)	high	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				
1478-61-1	216-036-7	4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]diphenol; bisphenol AF	(s1)443-330-4; ; (s2)278-305-5; (p)216-036-7	PMT	Not PMT/vPvM (vP, Not M &T)	vP: estimated t1/2 (error factor 10) = 913d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) July, 1992; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) July, 1992	UBA: M EC: Not M exp log Koc=3.4	(Rep_BroadConsensus)	high	WW: - SW: - DW: - GW: - RW: - BF: -
115-27-5	204-077-3	1,4,5,6,7,7-hexachloro-8,9,10-trinorborn-5-ene-2,3-dicarboxylic anhydride		vPvM & PMT	vPvM & PMT	vP: estimated t1/2 (error factor 10) = 2 923d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-1.6 (2a)	(PBT_UnderAssess)	high	WW: - SW: - DW: - GW: - RW: - BF: -
134605-64-4	603-837-5	(2-allyloxy-1,1-dimethyl-2-oxo-ethyl) 2-chloro-5-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidin-1-yl]benzoate		vPvM & PMT	vPvM & PMT	vP: measured max t1/2 (d): w=65(vP); s=266(vP); sed=n.d.	UBA: vM EC: vM exp log Koc=1.5	(Ecotox_PMT2019) (Ecotox_Envirotox)	high	WW: - SW: - DW: - GW: - RW: - BF: -
4531-49-1	224-867-1	2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[N-(2-methoxyphenyl)-3-oxobutyramide]		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 4 438d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD	UBA: vM EC: vM min Dow=0.4 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))				
2650-18-2	220-168-0	Diammonio(ethyl)[4-[[4-[ethyl(3-sulphonatobenzyl)amino]phenyl](2-sulphonatophenyl)methylene]cyclohexa-2,5-dien-1-ylidene](3-sulphonatobenzyl)ammonium	(s1)220-168-0; (s1)223-339-8; (s1)272-939-6	vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 837d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide); EPA OPPTS 835.3110 (Ready Biodegradability);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide); EPA OPPTS 835.3110 (Ready Biodegradability)	UBA: vM EC: M exp log Koc=2.1	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
6358-85-6	228-787-8	2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[3-oxo-N-phenylbutyramide]		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 4 469d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M min Dow=2.1 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: -
199119-58-9	688-332-8	sodium (4,6-dimethoxypyrimidin-2-yl) ({[3-(2,2,2-trifluoroethoxy)pyridin-2-yl]sulfonyl}carbamoyl)azanide		vPvM & PMT	vPvM & PMT	vP: measured max t1/2 (d): w=n.d.; s=408(vP); sed=115(not P)	UBA: vM EC: vM exp log Koc=1.4	(Ecotox_PMT2019)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
25956-17-6	247-368-0	Disodium 6-hydroxy-5-[(2-methoxy-4-sulphonato-m-tolyl)azo]naphthalene-2-sulphonate		vPvM & PMT	vPvM & PMT	vP: Due to lack of other information the substance was assessed by PBT assessment in water. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.3	(Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
129-17-9	204-934-1	Hydrogen [4-[4-(diethylamino)-2',4'-disulphonatobenzhydrylidene]cyclohexa-2,5-dien-1-ylidene]diethylammonium, sodium salt	(s1)204-934-1; (s1)240-006-2	vPvM & PMT	vPvM & PMT	vP: estimated t1/2 (error factor 10) = 2 154d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.0	(STOTRE_BroadConsensus)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
70247-70-0	274-499-0	Disodium 4-[4-[[5-[(2-bromo-1-oxoallyl)amino]-2-sulphonatophenyl]azo]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-1-yl]-2,5-dichlorobenzenesulphonate		vPvM & PMT	vPvM & PMT	vP: estimated t1/2 (error factor 10) = 4 777d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method);ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method)	UBA: vM EC: vM min Dow=-4.7 (2b)	(STOTRE_BroadConsensus)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
26316-40-5	500-047-1	Ethylenediamine, ethoxylated and propoxylated		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 29 565d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test) Cited as Directive 92/69/EEC, C.4-D;EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test) Cited as Directive 92/69/EEC, C.4-D	UBA: vM EC: vM min Dow=-4.0 (2c)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350, mixture
90268-24-9	290-824-9	Butanamide, 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[3-oxo-, N,N'-bis(4-chloro-2,5-dimethoxyphenyl and 2,4-xylyl) derivs..		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 12 894d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD	UBA: vM EC: vM min Dow=1.3 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350, mixture

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))				
15827-60-8	239-931-4	[[(phosphonomethyl)imino]bis[ethane-2,1-diylnitrilobis(methylene)]]tetrakisphosphonic acid	(s1)263-212-4; (p)239-931-4; (s1)244-751-4; (s1)274-798-6; (s1)284-362-7	vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 4 685d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: vM EC: vM min Dow=-16.3 (2b)	(PBT_MinorityOpinion)Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
365400-11-9	609-256-3	(5-hydroxy-1,3-dimethyl-1H-pyrazol-4-yl)[2-(methylsulfonyl)-4-(trifluoromethyl)phenyl]methanone		vPvM	vPvM	vP: measured max t1/2 (d): w=327(vP); s=120(not P); sed=578(vP)	UBA: vM EC: vM exp log Koc=1.3	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
22094-93-5	244-776-0	2,2'-[(2,2',5,5'-tetrachloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[N-(2,4-dimethylphenyl)-3-oxobutyramide]		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 34 018d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=0.5 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
36888-99-0	253-256-2	5,5'-(1H-isoindole-1,3(2H)-diylidene)dibarbituric acid		vPvM	vPvM	vP: Due to lack of other information the substance was assessed by PBT assessment in water. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-5.7 (2b)	-	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
73037-34-0	277-242-0	Disodium oxybis[methylbenzenesulphonate]		vPvM	vPvM	vP: No significant biodegradation in 301F and C tests. The PBT assessment evaluates the substance to be	UBA: vM EC: vM	Cramer Cl. III	high	WW: - SW: - DW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	min Dow=-1.9 (2b)			GW: - RW: - BF: - Note: MW>350
1263133-33-0	816-285-7	1-(pyrimidin-5-ylmethyl)-3-[3-(trifluoromethyl)phenyl]pyrido[1,2-a]pyrimidin-1-ium-3-ide-2,4-dione		vPvM	vPvM	vP: measured max t1/2 (d): w=n.d.; s=740(vP); sed=692(vP)	UBA: vM EC: vM exp log Koc=1.6	-	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
5468-75-7	226-789-3	2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[N-(2-methylphenyl)-3-oxobutyramide]		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 6 380d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=0.5 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
1429-50-1	215-851-5	[ethane-1,2-diylbis[nitrilobis(methylene)]]tetrakisphosphonic acid	(p)215-851-5; (s1)244-742-5; (s1)287-370-9	vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 648d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: vM EC: vM min Dow=-12.1 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
5567-15-7	226-939-8	2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[N-(4-chloro-2,5-dimethoxyphenyl)-3-oxobutyramide]		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 18 503d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD	UBA: vM EC: vM min Dow=0.0 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))				
16423-68-0	240-474-8	Disodium 2-(2,4,5,7-tetraiodo-6-oxido-3-oxoxanthen-9-yl)benzoate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 3 003 903d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.3	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
34455-29-3	252-046-8	Carboxymethyldimethyl-3-[[(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)sulphonyl]amino]propylammonium hydroxide	(p)252-046-8; (p)OKOCIUJVPQKDLL-UHFFFAOYSA-N	vPvM	vPvM	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 4 052d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.3	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
25797-81-3	247-269-2	Sodium 1-amino-9,10-dihydro-4-[5-[(2-hydroxyethyl)sulphamoyl]-3,4-xylidino]-9,10-dioxoanthracene-2-sulphonate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1103d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method)	UBA: vM EC: vM exp log Koc=1.5	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
128-80-3	204-909-5	1,4-bis(p-tolylamino)anthraquinone		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 677d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test) (2008); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) (adopted July 1992)	UBA: vM EC: vM min Dow=0.7 (2a)	(PBT_MinorityOpinion)Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
473278-76-1	695-022-6	2-{2-chloro-4-(methylsulfonyl)-3-[(tetrahydrofuran-2-		vPvM	vPvM	vP: measured max t1/2 (d): w=n.d.; s=1000(vP); sed=n.d.	UBA: vM EC: vM exp log Koc=1.5	Cramer Cl. III	high	WW: - SW: - DW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
		ylmethoxy)methyl]benzoyl}cyclohexane-1,3-dione								GW: - RW: - BF: - Note: MW>350
88992-45-4	811-523-6	2-hydroxy-N,N,N-trimethyl-3-[(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)thio]propan-1-aminium chloride		vPvM	PM (vP, M & Pot. T)	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 4 623d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) (2008); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) (1992); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) (2008); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) (1992);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide) (1999);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide) (1999)	UBA: vM EC: M min Dow=0.4 (2c)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
62880-93-7	811-522-0	sodium 2-methyl-2-({3-[(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)thio]propanoyl}amino)propane-1-sulfonate		vPvM	PM (vP, M & Pot. T)	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 7 198d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) (2008); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) (1992); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) (2008); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) (1992);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide) (1999);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide) (1999)	UBA: vM EC: M min Dow=1.1 (2b)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
85209-91-2	286-344-4	2,4,8,10-tetra(tert-butyl)-6-hydroxy-12H-dibenzo[d,g][1,3,2]dioxa	(s1)286-344-4; (s1)430-650-4; (s1)458-880-0	vPvM	PM (vP, M & Not T)	vP: estimated t1/2 (error factor 10) = 1375d, weight-of-evidence (this study) based on all known QSARs and	UBA: vM EC: M exp log Koc=2.9	-	high	WW: - SW: - DW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
		phosphocin 6-oxide, sodium salt				majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test)				GW: - RW: - BF: - Note: MW>350
232938-43-1	432-520-2	3-({[(4-methylphenyl)sulfonyl]carbamoyl}amino)phenyl 4-methylbenzenesulfonate		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 727d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M exp log Koc=2.2	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
5102-83-0	225-822-9	2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[N-(2,4-dimethylphenyl)-3-oxobutyramide]		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 9 976d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M min Dow=1.8 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
1229654-66-3	810-161-6	1-(3-chloropyridin-2-yl)-N-[4-cyano-2-methyl-6-(methylcarbamoyl)phenyl]-3-{[5-(trifluoromethyl)-2H-tetrazol-2-yl]methyl}-1H-pyrazole-5-carboxamide		vPvM	PM (vP, M & Pot. T)	vP: measured max t1/2 (d): w=24(not P); s=183(vP); sed=218(vP)	UBA: vM EC: M exp log Koc=2.3	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
78181-99-4	278-859-8	[2-[[2-cyano-3-[4-(diethylamino)phenyl]-1-oxoallyl]oxy]ethyl][3-[[2-cyano-3-[4-		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 639d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD	UBA: vM EC: M exp log Koc=2.1	Cramer Cl. III	high	WW: - SW: - DW: - GW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
		(diethylamino)phenyl]-1-oxoallyl]oxy]propyl]dimethylammonium chloride				Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)				RW: - BF: - Note: MW>350
915972-17-7	815-966-6	[(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-(cyclopropanecarbonyloxy)-6,12-dihydroxy-4,6a,12btrimethyl-11-oxo-9-(pyridin-3-yl)-1,2,3,4,4a,5,6,6a,12a,12b-decahydro-11H,12Hbenzo[f]pyrano[4,3-b]chromen-4-yl]methylcyclopropanecarboxylate		vPvM	PM (vP, M & Not T)	vP: measured max t1/2 (d): w=11(not P); s=66(not P); sed=371(vP)	UBA: vM EC: M exp log Koc=2.7	-	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
75627-31-5	616-248-3	disodium 2-({2-hydroxy-3-[2-(4-nonylphenoxy)ethoxy]propyl}(methyl)amino)acetate 2-{[3-({1-chloro-3-[2-(4-nonylphenoxy)ethoxy]propan-2-yl}oxy)-2-hydroxypropyl](methyl)amino}acetate		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 831d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.5	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
6358-69-6	228-783-6	Trisodium 8-hydroxypyrene-1,3,6-trisulphonate		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 1701d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M exp log Koc=3.0	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
155661-07-7	445-550-6	[(2R)-2-(2,4-dichlorophenyl)-2-[(1H-1,2,4-triazol-1-yl)methyl]-1,3-dioxolan-4-yl]methyl		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 1028d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M exp log Koc=2.5	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
		methanesulfonate hydrochloride								BF: - Note: MW>350
70571-81-2	274-675-7	Sodium 4-[[3-(acetylamino)phenyl]amino]-1-amino-9,10-dihydro-9,10-dioxoanthracene-2-sulphonate		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 751d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M exp log Koc=2.5	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
3618-73-3	222-814-7	2,2'-[[5-acetamido-4-[(2-chloro-4,6-dinitrophenyl)azo]-2-methoxyphenyl]imino]diethyl diacetate		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 1108d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: vM EC: M min Dow=1.6 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
-	422-600-5	2-(2H-1,2,3-benzotriazol-2-yl)-6-(2-phenylpropan-2-yl)-4-(2,4,4-trimethylpentan-2-yl)phenol		PMT	PMT	P: estimated t1/2 (error factor 10) = 421d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=0.7	(PBT_UnderAssess)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
2781-10-4	220-481-2	Dibutyltin bis(2-ethylhexanoate)		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 109d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=2.6 (2a)	(Rep_BroadConsensus) (DNEL)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
10584-98-2	234-186-1	2-ethylhexyl 4,4-dibutyl-10-ethyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate		PMT	Potential PMT/vPvM (P, Pot.M/vM &T)	P: ECHA PBT Broad consensus	UBA: M EC: Pot. M/vM min Dow=3.4 (2a)	(PBT_BroadConses) (DNEL)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
2312-35-8	219-006-1	Propargite		PMT	Not PMT/vPvM (vP, Not M &T)	vP: measured max t1/2 (d): w=128(vP); s=234(vP); sed=n.d.	UBA: M EC: Not M exp log Koc=3.9	(Carc2) (EDC_UnderAssess) (Ecotox_PMT2019) (Ecotox_Envirotox)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
6331-96-0	700-413-2	2-amino-4,5-dichlorobenzenesulfonic acid		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 334d, found in several water samples in Schulze et al. (2019) and consistent indications of P across tested QSARs	UBA: vM EC: vM min Dow=-1.0 (2b)	(Pro.S.P._ED)	low	WW: - SW: detected (S02) DW: - GW: - RW: - BF: - low
90-20-0	201-975-7	4-amino-5-hydroxynaphthalene-2,7-disulphonic acid	(s1)226-736-4; (p)201-975-7; (s1)276-684-1; (s1)291-639-6; (s1)297-025-4	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 376d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-5.1 (2b)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: - low
88-44-8	201-831-3	4-aminotoluene-3-sulphonic acid	(s1)611-210-2; (p)201-831-3	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 113d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-1.5 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: - low
88-72-2	201-853-3	2-nitrotoluene	(p)201-853-3; (s1)215-311-9	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 66d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=1.9	(Carc1ab) (Mut1) (Rep2) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	low	WW: - SW: - DW: - GW: - RW: - BF: - low
908020-52-0	700-323-3	Ammonium difluoro[1,1,2,2-tetrafluoro-2-(pentafluoroethoxy)ethoxy]acetate		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 4 214d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=0.7 (2b)	(PBT_UnderAssess)	low	WW: - SW: - DW: - GW: - RW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
										BF: - low
96-91-3	202-544-6	2-amino-4,6-dinitrophenol	(s1)212-603-8; (p)202-544-6; (s2)289-124-6; (s3)276-684-1	PMT	PMT	P: estimated t1/2 (error factor 10) = 505d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=0.6	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: - low
284461-73-0	608-209-4	4-(4-((((4-CHLORO-3-(TRIFLUOROMETHYL)PHENYL)AMINO)CARBONYL)AMINO)PHENOXY)-N-METHYL-2-PYRIDINECARBOXAMIDE		PMT	Potential PMT/vPvM (vP, Pot.M/vM &T)	vP: measured max t1/2 (d): w=n.d.; s=187(vP); sed=1(not P)	UBA: M EC: Pot. M/vM min Dow=3.3 (2a)	(Rep_BroadConsensus) (PBT_BroadConses) (Ecotox_PMT2019)	low	WW: - SW: - DW: - GW: - RW: - BF: - low
90268-23-8	290-823-3	Butanamide, 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[3-oxo-, N,N'-bis(p-anisyl and Ph) derivs..		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 4 340d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=1.4 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350, mixture
68610-86-6	271-878-2	Butanamide, 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[3-oxo-, N,N'-bis(o-anisyl and 2,4-xylyl) derivs..		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 6 502d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=0.8 (2a)	Cramer Cl. III	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350, mixture

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
116-14-3	204-126-9	Tetrafluoroethylene		vPvM & PMT	vPvM & PMT	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 22d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.7	(Carc_BroadConsensus)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
1514-82-5	627-872-0	2-bromo-3,3,3-trifluoroprop-1-ene		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 99d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	UBA: vM EC: M exp log Koc=2.2	(EDC_UnderAssess)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
107-46-0	203-492-7	Hexamethyldisiloxane		vPvM & PMT	PMT (vP, M &T)	vP: measured max t1/2 (d): w=n.d.; s=408(vP); sed=192(vP)	UBA: vM EC: M exp log Koc=2.9	(PBT_UnderAssess) (Ecotox_PMT2019)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
2314-97-8	219-014-5	Trifluoroiodomethane		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 101d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.4 (2a)	(Mut2)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
25291-17-2	246-791-8	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooct-1-ene		vPvM	PM (vP, M & Pot. T)	vP: apolar PFAS, estimated t1/2 (error factor 10) = 3 735d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) 1992	UBA: vM EC: M exp log Koc=2.7	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
91-17-8	202-046-9	Decahydronaphthalene	(p)202-046-9; (p)265-084-5	PMT	Not PMT/vPvM (vP, Not M &T)	vP: measured max t1/2 (d): w=73(vP); s=n.d.; sed=n.d.	UBA: M EC: Not M exp log Koc=3.3	(PBT_UnderAssess)	high	WW: - SW: - DW: - GW: - RW: -

PMT/vPvM substances registered under REACH in High-Priority Category A

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM Conclusion	EC Prop. PMT/vPvM Conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
										BF: - Note: volatile
1873-88-7	217-496-1	1,1,1,3,5,5,5-heptamethyltrisiloxane		**PMT**	Not PMT/vPvM (vP, Not M &T)	vP: measured max t1/2 (d): w=n.d.; s=120(not P); sed=192(vP)	UBA: M EC: Not M exp log Koc=3.6	(PBT_UnderAssess)	**high**	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile

3.2 Moderate-Priority Category B (142 unique chemical structures belonging to 162 registered substances)

Table 6: PMT/vPvM substances with REACH registration volumes less than 10 tpa, and not already subject to EU regulations

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
57-41-0	200-328-6	Phenytoin	(p)200-328-6; (s1)211-148-2	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 84d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM exp log Koc=1.7	(Rep_BroadConsensus)	medium	WW: max 340 ng/L (W12) SW: max 440 ng/L (S06,S01) DW: max 19 ng/L (D04,D02,D09) GW: max 29 ng/L (G15) RW: max 140 ng/L (R04) BF: -
15307-79-6	239-346-4	Sodium [2-[(2,6-dichlorophenyl)amino]phenyl]acetate	(s1)239-346-4; (p)239-348-5	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 226d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM min Dow=0.7 (2a)	(ecological effects)	medium	WW: max 54 015 ng/L (W12,W08,W04,W05, W07,W10,W11,W02) SW: max 15 033 ng/L (S06,S01) DW: max 114 ng/L (D17,D16) GW: max 590 ng/L (G04,G01,G02,G13,G15) RW: max 4 ng/L (R03) BF: max 430 ng/L (B07,B02)
68-35-9	200-685-8	Sulfadiazine		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 185d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM exp log Koc=0.3	(STOTRE_BroadConsensus)	medium	WW: max 286 ng/L (W12,W08,W09) SW: max 30 500 ng/L (S06,S01,S03) DW: max 6 ng/L (D16) GW: max 100 ng/L (G02,G05,G07,G15,G14) RW: max 50 ng/L (R05,R03) BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
79-00-5	201-166-9	1,1,2-trichloroethane		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 56d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), available QSARs and no biodeg. observed in majority of biodegradation screen tests e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=1.7	(Carc2)	medium	WW: - SW: - DW: max 100 ng/L (D02) GW: - RW: max 134 ng/L (R05) BF: -
139-40-2	205-359-9	Propazine		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 383d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM exp log Koc=1.7	(Carc2) (Ecotox_Envirotox) (Pro.S.P._ED)	medium	WW: - SW: max 41 ng/L (S01) DW: detected (D02) GW: max 25 ng/L (G01) RW: - BF: -
87-61-6	201-757-1	1,2,3-trichlorobenzene		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 117d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.9	(SINlist:Substance is concluded to be PBT by European Chemicals Bureau PBT Working Group.)	medium	WW: - SW: - DW: max 160 ng/L (D02) GW: - RW: max 30 ng/L (R05) BF: -
57-68-1	200-346-4	Sulfadimidine		vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 211d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM exp log Koc=0.7	Cramer Cl. III	medium	WW: max 640 ng/L (W12,W07,W09) SW: max 680 000 ng/L (S06,S01,S03) DW: max 90 ng/L (D17,D16) GW: max 3 600 ng/L (G15,G14,G13,G04,G03,G05,G07) RW: max 0 ng/L (R03,R05) BF: max 6 ng/L (B07)
542-02-9	208-796-3	6-methyl-1,3,5-triazine-2,4-diyldiamine		vPvM	vPvM	vP: No significant biodegradation in an enhanced 301E test. PBT assessment evaluates this substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-2.2 (2c)	Cramer Cl. III	medium	WW: - SW: detected (S02) DW: - GW: detected (G08) RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
110964-79-9	601-017-1	4-methanesulfonyl-2-nitrobenzoic acid		vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 62d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-8.0 (2b)	Cramer Cl. III	medium	WW: - SW: - DW: - GW: max 30 ng/L (G13) RW: - BF: -
60-80-0	200-486-6	Phenazone		vPvM	vPvM	Potential P/vP++: inferred from presence in monitoring studies (UBA, 2019)	UBA: vM EC: vM exp log Koc=-0.8	-	medium	WW: max 1 127 000 ng/L (W12,W04,W10) SW: max 2 500 ng/L (S06,S01,S04,S03) DW: max 400 ng/L (D09,D18,D17,D02,D10) GW: max 3 950 ng/L (G02,G04,G13) RW: max 80 ng/L (R05) BF: max 1 250 ng/L (B07)
13674-84-5	237-158-7	Tris(2-chloro-1-methylethyl) phosphate		vPvM	PM (vP, M & Pot. T)	vP: Biodegradation results in 301C and E tests <20% and persistence due to PBT assessment. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: M exp log Koc=2.2	Cramer Cl. III	medium	WW: max 21 000 ng/L (W08) SW: detected (S02) DW: max 510 ng/L (D21) GW: detected (G08) RW: max 180 ng/L (R05) BF: max 958 ng/L (B01)
15687-27-1	239-784-6	Ibuprofen		PMT	PMT	P: Carr et al. Water, Air, & Soil Pollution, 216(1), 633-642.	UBA: vM EC: M exp log Koc=2.8	(Ecotox_Envirotox)	medium	WW: max 27 256 ng/L (W12,W03,W04,W05,W07,W08,W10,W11) SW: max 39 137 ng/L (S06,S01,S03) DW: max 1 350 ng/L (D09,D07,D16,D17) GW: max 12 000 ng/L (G04,G01,G02,G03,G14,G15) RW: max 270 ng/L

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
										(R06,R05) BF: max 200 ng/L (B07)
288-88-0	206-022-9	1,2,4-triazole	(p)206-022-9; (t1)403-640-2; (t1)413-050-7; (t2)406-140-2; (t2)411-960-9	PMT	PMT	P: All biodegradation results in 301A and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-0.7 (2a)	(Rep2) (EDC_UnderAssess)	medium	WW: - SW: detected (S02) DW: detected (D21) GW: detected (G08-SW?) RW: - BF: -
81-81-2	201-377-6	Warfarin		PMT	PMT	P: measured max t1/2 (d): w=n.d.; s=150(P); sed=n.d.	UBA: vM EC: vM min Dow=0.4 (2b)	(Rep1) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	medium	WW: max 15 000 ng/L (W12) SW: max 240 ng/L (S06,S01) DW: - GW: - RW: max 3 ng/L (R04) BF: -
87-62-7	201-758-7	2,6-xylidine		PMT	PMT	P: No significant biodegradation in 301F tests. 302B tests not reliable. Registrant evaluates this substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.6	(Carc2)	medium	WW: - SW: max 206 ng/L (S01) DW: - GW: - RW: max 30 ng/L (R05) BF: -
68-22-4	200-681-6	Norethisterone		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 108d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	(Rep_BroadConsensus) (Pro.S.P._ED)	medium	WW: max 450 ng/L (W12) SW: max 13 ng/L (S06,S01,S03) DW: max 8 ng/L (D17) GW: - RW: - BF: -
83-32-9	201-469-6	Acenaphthene	(p)201-469-6; (p)292-605-3	PMT	Not PMT/vPvM (P, Not M &T)	P: measured max t1/2 (d): w=n.d.; s=134(P); sed=n.d.	UBA: M EC: Not M exp log Koc=3.4	(Carc1ab) (PBT_UnderAssess) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008. (Might	medium	WW: - SW: max 35 ng/L (S01) DW: - GW: detected (G05) RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
								not apply when contaminants are below legal thresholds and/or full refining history is known))		
120-82-1	204-428-0	1,2,4-trichlorobenzene		PMT	Not PMT/vPvM (vP-WoE, Not M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 117d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), available QSARs and no biodeg. observed in majority of biodegradation screen tests e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Not M exp log Koc=3.3	(SINlist:Substance is concluded to be PBT by European Chemicals Bureau PBT Working Group.) (Pro.S.P._ED)	medium	WW: - SW: max 4 ng/L (S01) DW: max 920 ng/L (D02) GW: - RW: max 20 ng/L (R05) BF: -
83905-01-5	617-500-5	2R,3R,4R,5R,8R,10R,11R,13S,14R)-11-[(2S,3R,4S,6R)-4-dimethylamino-3-hydroxy-6-methyl-oxan-2-yl]oxy-2-ethyl-3,4,10-trihydroxy-13-[(2S,4R,5S,6S)-5-hydroxy-4-methoxy-4,6-dimethyl-oxan-2-yl]oxy-3,5,6,8,10,12,14-heptamethyl-1-oxa-6-azacyclopentadecan-15-one		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 12 351d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM min Dow=-4.5 (2c)	(STOTRE_BroadConsensus)	medium	WW: - SW: max 535 ng/L (S03) DW: detected (D16) GW: detected (G14) RW: max 30 ng/L (R05) BF: -
66108-95-0	266-164-2	Iohexol		vPvM	vPvM	Potential P/vP++: Not inherently biodegradable (ISO DIS 9408 (Ultimate Aerobic Biodegradability - Method by Determining the Oxygen Demand in a Closed Respirometer) and OECD 301F;ISO DIS 9408 (Ultimate Aerobic Biodegradability - Method by Determining the Oxygen Demand in a Closed Respirometer) and OECD 301F); found in several water monitoring studies; QSARs indicate persistence (QSARtoolbox P profiler and BIOWIN)	UBA: vM EC: vM min Dow=-0.5 (2a)	Cramer Cl. III	medium	WW: max 7 700 ng/L (W08,W04,W12) SW: max 4 470 ng/L (S01,S06) DW: max 11 050 ng/L (D02,D10) GW: - RW: - BF: -
117-96-4	204-223-6	3,5-diacetamido-2,4,6-triiodobenzoic acid		vPvM	vPvM	Potential P/vP++: inferred from presence in monitoring studies (UBA, 2019)	UBA: vM EC: vM	Cramer Cl. III	medium	WW: max 8 400 000 ng/L (W08,W04,W12) SW: max 100 000 ng/L

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
							min Dow=-0.6 (2b)			(S06,S01) DW: max 1 200 ng/L (D09,D10) GW: max 1 000 ng/L (G02,G13) RW: max 70 ng/L (R05) BF: max 4 000 ng/L (B07)
114-07-8	204-040-1	Erythromycin	(p)204-040-1; (s1)231-723-1	**vPvM & PMT**	**vPvM & PMT**	Potential P/vP++: estimated t1/2 (error factor 10) = 6 161d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM min Dow=-0.9 (2c)	(Ecotox_Envirotox)	medium	WW: - SW: max 2 834 ng/L (S03) DW: max 9 ng/L (D16) GW: max 378 ng/L (G14) RW: - BF: - Note: MW>350
56773-42-3	260-375-3	Tetraethylammonium heptadecafluorooctanesulphonate		**vPvM & PMT**	**PMT (vP, M &T)**	vP: long-chain PFAS, Stockholm Convention	UBA: vM EC: M exp log Koc=2.6	(Rep_BroadConsensus) (PBT_BroadConses)	medium	WW: max 2 101 ng/L (W08,W01) SW: - DW: max 20 ng/L (D10,D18,D21,D02,D01,D05) GW: max 135 ng/L (G01) RW: max 62 ng/L (R02) BF: - Note: MW>350
139481-59-7	604-138-8	2-ethoxy-1-{[2'-(1H-tetrazol-5-yl)biphenyl-4-yl]methyl}-1H-benzimidazole-7-carboxylic acid		**vPvM**	**vPvM**	Potential P/vP++: estimated t1/2 (error factor 10) = 124d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM min Dow=-0.9 (2b)	Cramer Cl. III	medium	WW: max 1 985 ng/L (W12) SW: max 1 100 ng/L (S06) DW: max 20 ng/L (D18) GW: max 78 ng/L (G13) RW: - BF: - Note: MW>350

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
28179-44-4	248-887-5	Ioxitalamic acid	(s1)926-540-5; (p)248-887-5	vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 28 561d, and BIOWIN screen tool as recommended in the PBT guideline	UBA: vM EC: vM min Dow=-1.5 (2b)	Cramer Cl. III	medium	WW: max 1 300 ng/L (W12) SW: max 438 ng/L (S06) DW: - GW: max 100 ng/L (G02,G13) RW: - BF: - Note: MW>350
144689-24-7	646-413-5	4-(2-hydroxypropan-2-yl)-2-propyl-1-{[2'-(1H-tetrazol-5-yl)biphenyl-4-yl]methyl}-1H-imidazole-5-carboxylic acid		vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 310d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM min Dow=-1.2 (2b)	Cramer Cl. III	medium	WW: - SW: - DW: detected (D14) GW: - RW: - BF: - Note: MW>350
152459-95-5	604-855-6	Benzamide, 4-[(4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]phenyl]-		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 3 664d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: M EC: Pot. M/vM min Dow=0.7 (2c)	(Rep_BroadConsensus)	medium	WW: - SW: - DW: - GW: max 100 ng/L (G02) RW: - BF: - Note: MW>350
920-66-1	213-059-4	1,1,1,3,3,3-hexafluoropropan-2-ol		vPvM	vPvM	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 271d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=0.4 (2b)	Cramer Cl. III	medium	WW: - SW: - DW: - GW: - RW: - BF: -
2926-29-6	678-523-4	sodium trifluoromethanesulfinate		vPvM	vPvM	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 87d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of	UBA: vM EC: vM min Dow=-7.9 (2b)	Cramer Cl. III	medium	WW: - SW: - DW: - GW: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						biodegradation screen tests for substance/main transformation products				RW: - BF: -
70905-68-9	700-054-1	(1S,4R,6R)-1-[(3E)-5-hydroxy-3-methylpent-3-en-1-yn-1-yl]-2,2,6-trimethylcyclohexane-1,4-diol		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 35d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=0.5 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
88-73-3	201-854-9	1-chloro-2-nitrobenzene		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 115d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=2.0	(Carc_BroadConsensus)	low	WW: - SW: - DW: - GW: - RW: - BF: -
49701-24-8	256-435-3	4-amino-2,5-dimethoxy-N-methylbenzenesulphonamide		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 57d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=0.3 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
621-29-4	210-676-0	m-tolyl isocyanate		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 28d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test)	UBA: vM EC: vM exp log Koc=1.4	(STOTRE_BroadConsensus)	low	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
25321-14-6	246-836-1	Dinitrotoluene		vPvM & PMT	vPvM & PMT	Potential P/vP++: P data for this substance is variable and difficult to conclude; it is not readily biodegradable, QSARs collectively anticipate persistence, yet one soil half-life study indicates it is not persistent. In lieu of the high volumes and toxicity of this substance, it is considered potentially P	UBA: vM EC: vM exp log Koc=1.0	(Carc1ab) (Mut2) (Rep2) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	low	WW: - SW: - DW: - GW: - RW: - BF: -
897671-34-0	618-297-6	Methyl 5-methyl-4-[(oxomethylene)sulfamoyl]thiophene-3-carboxylate		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 34d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-0.6 (2a)	(STOTRE_BroadConsensus)	low	WW: - SW: - DW: - GW: - RW: - BF: -
7474-78-4	231-274-1	3,4-diaminobenzenesulphonic acid		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 280d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-2.9 (2b)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
74091-64-8	411-280-2	2,5-bis-isocyanatomethyl-bicyclo[2.2.1]heptane		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 38d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=1.3 (2a)	(STOTRE_1_2)	low	WW: - SW: - DW: - GW: - RW: - BF: -
95-54-5	202-430-6	o-phenylenediamine	(p)202-430-6; (t1)210-412-4	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 109d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=0.0	(Carc2) (Mut2)	low	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
90-51-7	202-000-8	6-amino-4-hydroxynaphthalene-2-sulphonic acid		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 147d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-1.9 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
2243-62-1	218-817-8	1,5-naphthylenediamine		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 157d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=0.5 (2a)	(Carc2)	low	WW: - SW: - DW: - GW: - RW: - BF: -
87-02-5	201-718-9	7-amino-4-hydroxynaphthalene-2-sulphonic acid		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 147d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-1.7 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
420-87-1	206-998-6	Sodium 2,2,2-trifluoroethanolate		vPvM & PMT	vPvM & PMT	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 52d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=0.4 (2b)	(Rep_BroadConsensus)	low	WW: - SW: - DW: - GW: - RW: - BF: -
99-88-7	202-797-2	4-isopropylaniline		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 65d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=1.7	(Ecotox_PMT2019)	low	WW: - SW: max 10 ng/L (S01) DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
109-70-6	203-697-1	1-bromo-3-chloropropane		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 32d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM exp log Koc=1.6	(Carc_BroadConsensus) (Rep_BroadConsensus)	low	WW: - SW: - DW: - GW: - RW: - BF: -
1072-63-5	214-012-0	1-vinylimidazole		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 23d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-1.1 (2a)	(Rep1) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	low	WW: - SW: - DW: - GW: - RW: - BF: -
108-42-9	203-581-0	3-chloroaniline		vPvM & PMT	vPvM & PMT	Potential P/vP++: From data in the dossier, the water half-life is near the criteria for P, and the sediment vP criteria is met in a water-sediment system,	UBA: vM EC: vM exp log Koc=1.6	(Ecotox_PMT2019)	low	WW: - SW: - DW: - GW: - RW: - BF: -
6610-29-3	229-563-2	4-methylthiosemicarbazide		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 52d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-0.8 (2c)	(DNEL)	low	WW: - SW: - DW: - GW: - RW: - BF: -
106-47-8	203-401-0	4-chloroaniline	(p)203-401-0; (t1)209-057-8	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 78d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.5	(Carc1ab) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	low	WW: - SW: max 290 ng/L (S01) DW: - GW: - RW: - BF: -
75-89-8	200-913-6	2,2,2-trifluoroethanol		vPvM & PMT	vPvM & PMT	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 51d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace	UBA: vM EC: vM min Dow=0.3 (2a)	(Rep_BroadConsensus)	low	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)				
40306-75-0	254-879-2	3-acetamido-5-amino-4-hydroxybenzenesulphonic acid		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 95d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method);ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method)	UBA: vM EC: vM min Dow=-3.4 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
119-79-9	204-351-2	5-aminonaphthalene-2-sulphonic acid	(p)204-351-2; (p)257-269-4	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 171d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.5 (Degradation: Biochemical Oxygen Demand); EU Method C.5 (Degradation: Biochemical Oxygen Demand)	UBA: vM EC: vM min Dow=-1.1 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
93839-71-5	298-842-9	4-[[(2-aminophenyl)methyl]amino]cyclohexyl acetate		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 48d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-3.0 (2c)	(STOTRE_BroadConsensus) (Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
641571-11-1	688-269-6	3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)aniline		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 212d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-1.0 (2c)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
66063-15-8	266-097-9	4-chloro-N-cyclopentylbenzylamine		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 59d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)	UBA: vM EC: vM min Dow=-7.3 (2a)	(Ecotox_PMT2019)	low	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
121-47-1	204-473-6	3-aminobenzenesulphonic acid		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 119d, found in several water samples in Schulze et al. (2019) and consistent indications of P across tested QSARs	UBA: vM EC: vM min Dow=-2.8 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
83-34-1	201-471-7	3-methylindole		vPvM & PMT	vPvM & PMT	vP: All biodegradation results in 301C and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-2.6 (2a)	STOTE RE (nephrotoxic in combination with cyanuric acid)T	low	WW: - SW: max 13 ng/L (S01) DW: - GW: - RW: - BF: -
382-26-3	609-534-4	2-[difluoro(methoxy)methyl]-1,1,1,3,3,3-hexafluoropropane		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 1839d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.1 (2a)	(Carc_BroadConsensus)	low	WW: - SW: - DW: - GW: - RW: - BF: -
100-40-3	202-848-9	4-vinylcyclohexene	(p)202-848-9; (p)905-559-2	vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 22d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.4	(Carc2)	low	WW: - SW: - DW: - GW: - RW: - BF: -
27955-94-8	405-800-7	4,4',4''-(ethan-1,1,1-triyl)triphenol		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 73d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) Annex V; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) Annex V; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M exp log Koc=2.2	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
100-00-5	202-809-6	1-chloro-4-nitrobenzene		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 115d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD	UBA: vM EC: M min Dow=2.4 (2a)	(Carc2) (Mut2)	low	WW: - SW: - DW: - GW: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				RW: - BF: -
56962-04-0	611-435-6	3-bromo-5-chlorophenol		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 50d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=2.1 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
636-30-6	211-254-9	2,4,5-trichloroaniline		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 231d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=3.0	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
120-83-2	204-429-6	2,4-dichlorophenol		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 49d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.3	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
120-35-4	204-388-4	3-amino-4-methoxybenzanilide		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 58d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method	UBA: vM EC: M min Dow=2.1 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				
1671-49-4	430-550-0	4-mesyl-2-nitrotoluene		vPvM & PMT	PMT (vP, M &T)	vP: All biodegradation results in 301F and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: M exp log Koc=2.3	(Rep2)	low	WW: - SW: - DW: - GW: - RW: - BF: -
1570-64-5	216-381-3	4-chloro-o-cresol		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 29d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M exp log Koc=2.2	(Pro.S.P._ED)	low	WW: - SW: max 7 ng/L (S01) DW: - GW: - RW: - BF: -
95-76-1	202-448-4	3,4-dichloroaniline	(p)202-448-4; (t1)206-354-4	vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 133d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.3	(Pro.S.P._ED)	low	WW: - SW: max 80 025 ng/L (S01) DW: - GW: - RW: - BF: -
2431-50-7	219-397-9	2,3,4-trichlorobut-1-ene		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 62d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.0	(Carc2)	low	WW: - SW: - DW: - GW: - RW: - BF: -
760-23-6	212-079-0	3,4-dichlorobut-1-ene		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 41d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed	UBA: vM EC: M min Dow=2.0 (2a)	(Carc_BroadConsensus)	low	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				
71786-67-9	276-017-4	Benzyl(3-hydroxyphenacyl)methyl ammonium chloride		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 56d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=-0.4 (2c)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
6358-64-1	228-782-0	4-chloro-2,5-dimethoxyaniline		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 47d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=1.9 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
143390-89-0	604-351-6	kresoxim-methyl (ISO)		vPvM & PMT	PMT (vP, M &T)	vP: measured max t1/2 (d): w=2(not P); s=511(vP); sed=n.d.	UBA: vM EC: M exp log Koc=2.5	(Carc2)	low	WW: - SW: - DW: - GW: - RW: - BF: -
3058-38-6	221-297-5	2,4,6-trinitrobenzene-1,3,5-triamine		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 5 448d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-0.3 (2a)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: -
371-40-4	206-735-5	4-fluoroaniline		vPvM	vPvM	vP: measured max t1/2 (d): w=n.d.; s=n.d.; sed=211(vP)	UBA: vM EC: vM exp log Koc=1.7	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
117-61-3	204-200-0	Benzidine-2,2'-disulphonic acid		PMT	PMT	P: ECHA PBT Broad consensus & weight-of-evidence from QSARs in this study	UBA: vM EC: vM min Dow=-4.4 (2a)	(PBT_BroadConses) (Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
1951-97-9	217-775-8	Piperazine, compound with phosphoric acid		PMT	PMT	P: ECHA PBT Broad consensus	UBA: vM EC: vM min Dow=0.3 (2a)	(Rep2) (STOTRE_1_2) (PBT_BroadConses)	low	WW: - SW: - DW: - GW: - RW: - BF: -
97-00-7	202-551-4	1-chloro-2,4-dinitrobenzene		PMT	PMT	P: estimated t1/2 (error factor 10) = 409d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM exp log Koc=1.9	(Ecotox_Envirotox)	low	WW: - SW: - DW: - GW: - RW: - BF: -
104-12-1	203-176-9	4-chlorophenyl isocyanate		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 46d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=3.1 (2a)	(STOTRE_1_2)	low	WW: - SW: - DW: - GW: - RW: - BF: -
434-03-7	207-096-5	Ethisterone		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 228d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	(Rep_BroadConsensus) (Ecotox_PMT2019) (Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
89-63-4	201-925-4	4-chloro-2-nitroaniline		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 270d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Pot. M/vM min Dow=2.8 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
611-06-3	210-248-3	1,3-dichloro-4-nitrobenzene		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 192d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=2.8 (2a)	(Carc_BroadConsensus)	low	WW: - SW: - DW: - GW: - RW: - BF: -
92-79-5	202-190-2	3-hydroxy-4'-methoxy-2-naphthanilide		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 45d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Pot. M/vM min Dow=2.3 (2b)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
976-70-5	213-552-4	3-oxopregn-4-ene-21,17α-carbolactone		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 184d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
95-73-8	202-445-8	2,4-dichlorotoluene		PMT	Not PMT/vPvM (vP-WoE, Not M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 63d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Not M exp log Koc=3.2	(Ecotox_Envirotox)	low	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
612-83-9	210-323-0	3,3'-dichlorobenzidine dihydrochloride		PMT	Not PMT/vPvM (P, Not M &T)	P: estimated t1/2 (error factor 10) = 508d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Not M exp log Koc=3.8	(Carc_BroadConsensus) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008) (Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: -
129909-90-6	603-373-3	4-amino-N-(1,1-dimethylethyl)-4,5-dihydro-3-(1-methylethyl)-5-oxo-1H-1,2,4-triazole-1-carboxamide		vPvM	vPvM	vP: Due to lack of other information the substance was assessed by PBT assessment in water. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.4	-	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
67786-14-5	267-090-3	Sodium 6-amino-4-hydroxy-5-[[2-(trifluoromethyl)phenyl]azo]naphthalene-2-sulphonate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 784d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method) BOD5;EU Method C.6 (Degradation: Chemical Oxygen Demand) COD;EU Method C.5 (Degradation: Biochemical Oxygen Demand) BOD5;ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method) BOD5;EU Method C.6 (Degradation: Chemical Oxygen Demand) COD;EU Method C.5 (Degradation: Biochemical Oxygen Demand) BOD5; OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-2.0 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: -
14692-76-3	238-739-8	Tetrasodium [3-[[8-[(4-amino-6-chloro-1,3,5-triazin-2-yl)amino]-1-hydroxy-3,6-disulpho-2-naphthyl]azo]-4-hydroxynaphthalene-		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 4 303d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline	UBA: vM EC: vM min Dow=-8.1 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
		1,5-disulphonato(6-)]cuprate(4-)				301 F (Ready Biodegradability: Manometric Respirometry Test)				
75214-69-6	278-137-2	Sodium bis[4-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]-3-hydroxy-N,N-dimethylbenzene-1-sulphonamidato(2-)]chromate(1-)		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 3 351d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-1.3 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: -
157367-45-8	941-814-4	4,4'-bis[(4,6-bis{[3-(diethylamino)propyl]amino}-1,3,5-triazin-2-yl)amino]-1,1'-bianthracene-9,9',10,10'-tetrone		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1665 621d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-7.5 (2c)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: -
67914-86-7	267-749-5	cis-2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-ylmethyl methanesulphonate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1028d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=1.0 (2a)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: -
31981-44-9	250-882-8	17-hydroxy-19-norpregn-4-ene-3,20-dione 17-acetate		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 106d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=2.6 (2a)	(Rep_BroadConsensus)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	444-340-1	Potassium 2-(3-trifluoromethoxy-1,1,2,2,3,3-hexafluoropropoxy)-2,3,3,3-tetrafluoropropionate		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 22 393d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=1.9 (2b)	(PBT_UnderAssess)	low	WW: - SW: - DW: - GW: - RW: - BF: -
81-11-8	201-325-2	4,4'-diaminostilbene-2,2'-disulphonic acid	(s1)230-847-3; (p)201-325-2	vPvM & PMT	vPvM & PMT	vP: estimated t1/2 (error factor 10) = 1483d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD	UBA: vM EC: vM min Dow=-3.7 (2b)	(Pro.S.P._ED)	low	WW: - SW: - DW: - GW: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)				RW: - BF: - Note: MW>350
152-97-6	205-811-5	Fluocortolone		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 76d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=2.3 (2a)	(Rep_BroadConsensus) (Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
50-24-8	200-021-7	Prednisolone		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 146d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M min Dow=1.6 (2a)	(Rep_BroadConsensus) (Pro.S.P._ED)	low	WW: - SW: max 11 ng/L (S01) DW: - GW: - RW: - BF: - Note: MW>350
919005-14-4	700-835-7	2,2,3-trifluoro-3-[1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy]propanoic acid		vPvM	vPvM	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 4 366d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM exp log Koc=1.3	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
-	465-100-2	STI571 F8	(s1)465-100-2; (s1)611-624-3	vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1035d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-3.4 (2c)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
6798-03-4	229-872-2	Disodium [μ-[[7,7'-iminobis[4-hydroxy-3-[[2-hydroxy-5-sulphamoylphenyl]azo]n		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 934d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD	UBA: vM EC: vM min Dow=-4.0 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
		aphthalene-2-sulphonato]](6-)]]dicuprate(2-)				Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)				RW: - BF: - Note: MW>350
3536-49-0	222-573-8	Bis[hydrogen [4-[4-(diethylamino)-5'-hydroxy-2',4'-disulphonatobenzhydrylidene]cyclohexa-2,5-dien-1-ylidene]diethylammonium], calcium salt	(s1)222-573-8; (s1)243-654-4	vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 684d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) adopted 17th July 1992; OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) adopted 17th July 1992	UBA: vM EC: vM min Dow=-2.4 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
35642-64-9	252-652-2	7-[[2-[(aminocarbonyl)amino]-4-[(4-amino-6-chloro-1,3,5-triazin-2-yl)amino]phenyl]azo]naphthalene-1,3,6-trisulphonic acid	(s1)274-349-4; (p)252-652-2	vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 3 760d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.0	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
83027-61-6	280-163-4	Disodium [(9,10-dihydro-9,10-dioxo-1,4-anthrylene)diimino]bis[ethyltoluenesulphonate]		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 721d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-1.4 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
6022-22-6	227-877-4	Disodium 4,4'-diamino-9,9',10,10'-tetrahydro-9,9',10,10'-tetraoxo[1,1'-bianthracene]-3,3'-disulphonate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 2 937d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready	UBA: vM EC: vM min Dow=-1.2 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)				BF: - Note: MW>350
4137-56-8	609-920-2	[(3aS,4S,6S)-6-methoxy-2,2-dimethyl-tetrahydro-2H-furo[3,4-d][1,3]dioxol-4-yl]methyl 4-methylbenzene-1-sulfonate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1488d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=1.4 (2a)	-	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
31775-20-9	250-799-7	2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[N-(4-ethoxyphenyl)-3-oxobutyramide]		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 4 777d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=1.1 (2a)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
74351-78-3	616-083-7	3-[(E)-2-[1-({4-[(2E)-2-[2-(5-carboxy-2-chlorophenyl)hydrazin-1-ylidene]-3-oxobutanamido]-2,5-dimethylphenyl}carbamoyl)-2-oxopropylidene]hydrazin-1-yl]-4-chlorobenzoic acid		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 2 216d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-1.2 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
40783-05-9	255-078-0	2,2'-(2,5-dichloro-1,4-phenylene)bis(1H-anthra[1,2-d]imidazole-6,11-dione)		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1047d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-0.1 (2a)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
1065519-44-9	700-222-4	N-(4-{[3-(dimethylamino)propyl]sulfamoyl}phenyl)-2-[(2-methoxy-4-nitrophenyl)diazenyl]-3-oxobutanamide		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1548d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-1.3 (2c)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
70210-21-8	274-418-9	Trisodium 7-[[4-chloro-6-[(3-sulphonatophenyl)amino]-1,3,5-triazin-2-yl]methylamino]-4-hydroxy-3-[(2-sulphonatophenyl)azo]naphthalene-2-sulphonate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1034d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)	UBA: vM EC: vM min Dow=-2.9 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
129-16-8	204-933-6	Merbromin		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 643d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.6	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
75199-08-5	278-113-1	Chromate(2-), [2,4-dihydro-4-[(2-hydroxy-4-nitrophenyl)azo]-5-methyl-3H-pyrazol-3-onato(2-)][3-[[4,5-dihydro-3-methyl-1-(4-methylphenyl)-5-oxo-1H-pyrazol-4-yl]azo]-4-hydroxy-5-		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 6 950d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.6 (Degradation: Chemical Oxygen Demand); EU Method C.5 (Degradation: Biochemical Oxygen Demand); EU Method C.6 (Degradation: Chemical Oxygen Demand); EU Method C.5 (Degradation: Biochemical Oxygen Demand)	UBA: vM EC: vM min Dow=-1.5 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
		nitrobenzenesulfonato(3-)]-, disodium								
73816-74-7	277-616-3	Trisodium 5-[[4-chloro-6-(ethylphenylamino)-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[(4-methyl-2-sulphonatophenyl)azo]naphthalene-2,7-disulphonate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1393d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.3	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
65151-26-0	265-529-3	Disodium 7-[(4-amino-3-methoxyphenyl)azo]naphthalene-1,3-disulphonate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 947d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test); OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)	UBA: vM EC: vM min Dow=-2.0 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
1422649-48-6	811-858-8	pentasodium 4-amino-3-[(2,4-disulfonatophenyl)diazenyl]-5-hydroxy-6-[(4-nitro-2-sulfonatophenyl)diazenyl]naphthalene-1,7-disulfonate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 10 354d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.3	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
958445-54-0	640-001-9	Methyl 2,2,3-trifluoro-3-[1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy]propanoate		vPvM	vPvM	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 5 242d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM exp log Koc=1.3	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
83733-23-7	280-676-3	Disodium [3-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]-4-hydroxy-5-nitrobenzenesulphonato		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 9 184d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU	UBA: vM EC: vM min Dow=-1.6 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
		(3-)][2-[(2-hydroxybenzylidene)amino]-4-nitrophenolato(2-)-N2,O1,O2]chromate(2-)				Method C.5 (Degradation: Biochemical Oxygen Demand)				BF: - Note: MW>350
6505-30-2	229-390-2	Hydrogen [4-[[4-(diethylamino)phenyl][4-[ethyl[(3-sulphonatobenzyl)amino]-o-tolyl]methylene]-3-methylcyclohexa-2,5-dien-1-ylidene](ethyl) (3-sulphonatobenzyl)ammonium, sodium salt		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 7 947d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-2.5 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
503155-49-5	610-522-6	Tetrasodium 7-amino-4-hydroxy-3-[(2-methoxy-5-methyl-4-{[2-(sulfonatooxy)ethyl]sulfonyl}phenyl)diazenyl]-8-[(2-sulfonato-4-{[2-(sulfonatooxy)ethyl]sulfonyl}phenyl)diazenyl]naphthalene-2-sulfonate		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 2 788d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.3	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
119302-24-8	601-596-0	(2β,3α,5α,16β,17β)-17-Acetoxy-3-hydroxy-2-(4-morpholinyl)-16-(1-pyrrolidinyl)androstane		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 637d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide)	UBA: vM EC: vM min Dow=-3.8 (2c)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
74186-17-7	277-753-9	Trisodium 5-[[5-methyl-4-[(4-nitro-2-sulphonatophenyl)azo]-2-(3-		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 1171d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU	UBA: vM EC: vM min Dow=-4.6 (2b)	Cramer Cl. III	low	WW: - SW: - DW: - GW: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
		sulphonatopropoxy)phenyl]azo]salicylate				Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)				RW: - BF: - Note: MW>350
1217271-02-7	700-584-3	N-[3-({[2,2-dimethyl-3-(morpholin-4-yl)propylidene]amino}methyl)-3,5,5-trimethylcyclohexyl]-2,2-dimethyl-3-(morpholin-4-yl)propan-1-imine		vPvM	vPvM	vP: estimated t1/2 (error factor 10) = 8 821d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-2.1 (2c)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
97780-06-8	619-290-0	ethametsulfuron-methyl (ISO); methyl 2-[(4-ethoxy-6-methylamino-1,3,5-triazin-2-yl)carbamoylsulfamoyl]benzoate		vPvM	vPvM	vP: measured max t1/2 (d): w=2 422(vP); s=1092(vP); sed=n.d.	UBA: vM EC: vM exp log Koc=1.6	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
1217271-49-2	700-570-7	[2,2-dimethyl-3-(morpholin-4-yl)propylidene][6-({2-methyl-2-[(morpholin-4-yl)methyl]propylidene}amino)hexyl]amine		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 2 379d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) July 17, 1992; OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) July 17, 1992	UBA: vM EC: M min Dow=-0.3 (2c)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
123944-63-8	807-560-2	1,4-bis({3-[2-(2-hydroxyethoxy)ethoxy]propyl}amino)-9,10-anthraquinone		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 1592d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD	UBA: vM EC: M exp log Koc=2.9	Cramer Cl. III	low	WW: - SW: - DW: - GW: -

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)				RW: - BF: - Note: MW>350
581076-60-0	611-622-2	N-(4-Methyl-3-nitro-phenyl)-4-(4-methyl-piperazin-1-ylmethyl)-benzamide		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 980d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=0.0 (2c)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
90982-32-4	618-690-2	Ethyl 2-(4-chloro-6-methoxypyrimidin-2-ylcarbamoylsulfamoyl)benzoate		vPvM	PM (vP, M & Pot. T)	vP: measured max t1/2 (d): w=210(vP); s=53(not P); sed=n.d.	UBA: vM EC: M min Dow=1.3 (2b)	Cramer Cl. III	low	WW: - SW: max 109 ng/L (S01) DW: - GW: - RW: - BF: - Note: MW>350
53179-11-6	258-416-5	Loperamide		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 892d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M exp log Koc=2.7	Cramer Cl. III	low	WW: max 2 409 ng/L (W08) SW: max 4 ng/L (S06) DW: - GW: - RW: - BF: - Note: MW>350
380843-75-4	700-455-1	4-[(2,4-dichloro-5-methoxyphenyl)amino]-6-methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]quinoline-3-carbonitrile		vPvM	PM (vP, M & Pot. T)	vP: estimated t1/2 (error factor 10) = 3 138d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=0.3 (2c)	Cramer Cl. III	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
85-73-4	201-627-4	Phthalylsulfathiazole		PMT	PMT	P: ECHA PBT Broad consensus	UBA: vM EC: vM min Dow=-1.3 (2a)	(PBT_BroadConses)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
835621-07-3	692-722-3	4-[4-({[4-chloro-3-(trifluoromethyl)phenyl]carbamoyl}amino)-3-fluorophenoxy]-N-methylpyridine-2-carboxamide hydrochloride		PMT	Potential PMT/vPvM (vP, Pot.M/vM &T)	vP: estimated t1/2 (error factor 10) = 3 305d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=3.4 (2a)	(Rep_BroadConsensus) (Ecotox_PMT2019)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
1176-81-4	601-489-9	21-Acetoxy-6alpha-fluoro-11ß-hydroxy-16alpha-methyl-4-pregnene-3,20-dione		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 94d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Pot. M/vM min Dow=2.8 (2a)	(Rep_BroadConsensus) (Pro.S.P._ED)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
1072957-71-1	691-719-4	benzovindiflupyr (ISO); N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide		PMT	Not PMT/vPvM (vP, Not M &T)	vP: measured max t1/2 (d): w=n.d.; s=1000(vP); sed=n.d.	UBA: M EC: Not M exp log Koc=3.7	(Ecotox_PMT2019)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
55-56-1	200-238-7	Chlorhexidine	(p)200-238-7; (s1)223-026-6; (s1)242-354-0	PMT	Not PMT/vPvM (vP, Not M &T)	vP: estimated t1/2 (error factor 10) = 2 360d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Not M exp log Koc=3.9	(Ecotox_PMT2019)	low	WW: - SW: max 78 ng/L (S06) DW: - GW: - RW: - BF: - Note: MW>350

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
65997-13-9	266-042-9	Resin acids and Rosin acids, hydrogenated, esters with glycerol		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 39d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Pot. M/vM min Dow=3.3 (2a)	(PBT_UnderAssess)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350, mixture
110-83-8	203-807-8	Cyclohexene		vPvM	vPvM	Potential P/vP++: estimated t1/2 (error factor 10) = 19d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=2.0	-	medium	WW: - SW: - DW: - GW: - RW: max 110 ng/L (R05) BF: -
71-55-6	200-756-3	1,1,1-trichloroethane		vPvM	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 107d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: M min Dow=2.5 (2a)	Cramer Cl. III	medium	WW: - SW: max 23 ng/L (S01) DW: - GW: max 10 000 ng/L (G06) RW: max 210 ng/L (R05) BF: -
138526-69-9	418-480-9	1-bromo-3,4,5-trifluorobenzene		PMT	Potential PMT/vPvM (vP, Pot.M/vM &T)	vP: estimated t1/2 (error factor 10) = 13 565d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Pot. M/vM min Dow=3.2 (2a)	(Carc2)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	422-270-2	1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane; 1,1,1,2,3,3-hexafluoro-3-methoxy-2-(trifluoromethyl)propane		vPvM & PMT	vPvM & PMT	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 4 423d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) (1992)	UBA: vM EC: vM exp log Koc=1.8	(PBT_UnderAssess)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile

PMT/vPvM substances registered under REACH in Moderate-priority Category B

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
-	422-270-2	1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane; 1,1,1,2,3,3-hexafluoro-3-methoxy-2-(trifluoromethyl)propane		vPvM & PMT	vPvM & PMT	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 1520d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) (1992)	UBA: vM EC: vM exp log Koc=1.9	(PBT_UnderAssess)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
691-37-2	211-720-1	4-methylpent-1-ene		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 22d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.3	(Ecotox_Envirotox)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
307-34-6	206-199-2	Perfluorooctane		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 57 120d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M exp log Koc=3.0	(SINlist:This substance is Persistent, Bioaccumulative and Toxic.)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
-	484-450-7	Trade name: 3M(TM) NOVEC(TM) ENGINEERED FLUID HFE-7000		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 703d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=2.6 (2a)	(PBT_UnderAssess)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile

3.3 Moderate-Priority Category C (29 unique chemical structures belonging to 53 registered substances)

Table 7: PMT/vPvM substances with REACH registration volumes greater than 1 tpa that are already subject to existing EU regulations

PMT/vPvM substances registered under REACH in Moderate-priority Category C

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
75-01-4	200-831-0	Chloroethylene	(p)200-831-0; (t2-1)201-167-4; (t3-1)201-167-4	vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 24d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM exp log Koc=0.9	(Carc1ab) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	very high	WW: - SW: - DW: max 250 ng/L (D02) GW: max 10 000 ng/L (G06) RW: max 500 ng/L (R05) BF: -
1634-04-4	216-653-1	tert-butyl methyl ether		vPvM & PMT	vPvM & PMT	Potential P/vP++: Though definitive P conclusions can not be found an evaluation of dossier information could not rule out definitely that the P criteria was not met.	UBA: vM EC: vM min Dow=1.0 (2a)	(EDC_UnderAssess) (SINlist:MTBE is an endocrine disruptor with androgen and thyroid activity, affecting several body functions including reproduction and immune function. The substance has been found in biomonitoring studies. It is categorised as an endocrine disruptor in the EU Commission Database.)	very high	WW: - SW: max 43 ng/L (S01) DW: max 57 800 ng/L (D02,D21,D10) GW: max 10 000 ng/L (G06,G05) RW: max 170 ng/L (R05) BF: -
96-18-4	202-486-1	1,2,3-trichloropropane		vPvM & PMT	vPvM & PMT	Potential P/vP++: P data for this substance is variable and difficult to conclude; however, its identification in monitoring studies in DW and GW indicates it is persistent enough.	UBA: vM EC: vM exp log Koc=1.9	(SVHC:Carcinogenic (Article 57a)#Toxic for reproduction (Article 57c)) (Carc1ab) (Rep1) (DNEL) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	very high	WW: - SW: - DW: - GW: max 5 000 ng/L (G06) RW: max 90 ng/L (R05) BF: -
111-96-6	203-924-4	Bis(2-methoxyethyl) ether		vPvM & PMT	vPvM & PMT	vP: No degradation in a OECD TG 309 (Hofman-Caris	UBA: vM EC: vM exp log Koc=-1.2	(SVHC:Toxic for reproduction (Article 57c)) (Rep1) (SINlist:	very high	WW: - SW: max 152 ng/L (S01)

PMT/vPvM substances registered under REACH in Moderate-priority Category C

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						and Claßen, 2020). Calculated half-life diglyme: >10.000 days		Classified CMR according to Annex VI of Regulation 1272/2008)		DW: max 150 ng/L (D10) GW: - RW: max 182 ng/L (R05) BF: max 41 ng/L (B01)
56-23-5	200-262-8	Carbon tetrachloride		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 172d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM exp log Koc=1.9	(Carc2)	very high	WW: - SW: - DW: max 2 240 ng/L (D02) GW: max 5 000 ng/L (G06) RW: - BF: -
75-09-2	200-838-9	dichloromethane; methylene chloride	(p)200-838-9; ; (t1)212-742-4; (t3-1)200-262-8	vPvM & PMT	vPvM & PMT	vP: measured max t1/2 (d): w=n.d.; s=191(vP); sed=n.d.	UBA: vM EC: vM min Dow=1.3 (2a)	(Carc2) (EDC_UnderAssess)	very high	WW: - SW: max 285 ng/L (S01) DW: max 531 ng/L (D02) GW: - RW: max 270 ng/L (R05) BF: -
330-54-1	206-354-4	diuron (ISO); 3-(3,4-dichlorophenyl)-1,1-dimethylurea		vPvM & PMT	PMT (vP, M &T)	vP: measured max t1/2 (d): w=n.d.; s=1920(vP); sed=232(vP)	UBA: vM EC: M exp log Koc=2.6	(Carc2) (EDC_UnderAssess) (Ecotox_PMT2019) (Ecotox_Envirotox) (Pro.S.P._ED)	very high	WW: max 1 426 ng/L (W08,W06,W08,W10) SW: max 1 362 ng/L (S01) DW: max 2 100 ng/L (D02,D21,D10) GW: max 178 ng/L (G07,G01,G13) RW: max 20 ng/L (R05) BF: -
107-06-2	203-458-1	1,2-dichloroethane		PMT	PMT	P: Due to lack of other information the substance was assessed by PBT assessment in water. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=1.5 (2a)	(SVHC: Carcinogenic (Article 57a)) (Carc1ab) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	very high	WW: - SW: - DW: max 81 900 ng/L (D02) GW: max 5 000 ng/L (G06)

PMT/vPvM substances registered under REACH in Moderate-priority Category C

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
										RW: max 672 ng/L (R05) BF: -
79-01-6	201-167-4	Trichloroethylene		PMT	PMT	P: No significant biodegradation in 301C and D tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: M exp log Koc=2.1	(SVHC:Carcinogenic (Article 57a)) (Carc1ab) (Mut2) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	very high	WW: - SW: max 91 ng/L (S01) DW: max 21 600 ng/L (D02,D20,D10,D18) GW: max 10 000 ng/L (G06) RW: max 15 500 ng/L (R05) BF: -
140-66-9	205-426-2	4-(1,1,3,3-tetramethylbutyl)phenol		PMT	Not PMT/vPvM (P, Not M &T)	P: measured max t1/2 (d): w=60(P); s=41(not P); sed=20(not P)	UBA: M EC: Not M exp log Koc=4.0	(SVHC:Endocrine disrupting properties (Article 57(f) - environment)) (PBT_UnderAssess) (Ecotox_PMT2019) (Ecotox_Envirotox) (SINlist:Substance is concluded to be an endocrine disruptor SVHC by ECHA Member State Committee.) (Pro.S.P._ED)	very high	WW: - SW: max 355 ng/L (S01) DW: - GW: max 1 800 ng/L (G07,G01) RW: max 50 ng/L (R05) BF: -
127-18-4	204-825-9	Tetrachloroethylene		vPvM & PMT	PMT (vP, M &T)	vP: No significant biodegradation in 301 C tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: M exp log Koc=2.1	(Carc2) (SINlist:Perchloroethylene is an endocrine disruptor affecting several body functions including reproduction, development, neurological function and kidneys. It is categorised as an endocrine disruptor in the EU Commission EDC database.) (Pro.S.P._ED)	very high	WW: - SW: max 149 ng/L (S01) DW: max 180 000 ng/L (D02,D20,D03) GW: max 10 000 ng/L (G06) RW: max 3 800 ng/L (R05,R06) BF: - Note: volatile

PMT/vPvM substances registered under REACH in Moderate-priority Category C

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
67-66-3	200-663-8	Chloroform	(p)200-663-8; (p)212-742-4; (t3)200-262-8	vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 55d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), available QSARs and no biodeg. observed in majority of biodegradation screen tests e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.0	(Carc2) (Rep2)	very high	WW: - SW: max 5 010 ng/L (S01) DW: max 34 580 ng/L (D08,D02) GW: max 10 000 ng/L (G05,G06) RW: max 220 ng/L (R05) BF: - Note: volatile
101-80-4	202-977-0	4,4'-oxydianiline		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 107d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.7	(SVHC:Carcinogenic (Article 57a)#Mutagenic (Article 57b)) (Carc_BroadConsensus) (Mut_BroadConsensus) (Rep2) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008) (Pro.S.P._ED)	high	WW: - SW: - DW: - GW: - RW: - BF: -
76-03-9	200-927-2	Trichloroacetic acid	(s1)211-479-2; ; (t1-1)201-167-4; (t2-1)206-117-5; (t2-1)200-756-3; (p)200-927-2	vPvM & PMT	vPvM & PMT	vP: concluded in the dossier with vP assessment, soil half-life found at 120 half days	UBA: vM EC: vM exp log Koc=0.0	(Ecotox_ NOEC = 8.6 µg/L to Algae)T	high	WW: - SW: - DW: - GW: - RW: - BF: -
19438-60-9	243-072-0	Hexahydro-4-methylphthalic anhydride		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 37d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=1.9 (2a)	(SVHC:Respiratory sensitising properties (Article 57(f) - human health)) (STOTRE_BroadConsensus) (SINlist: Classified respiratory sensitiser concluded to be a SVHC by ECHA Member State Committee.)	high	WW: - SW: - DW: - GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category C

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
71868-10-5	400-600-6	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 214d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M exp log Koc=2.5	(SVHC:Toxic for reproduction (Article 57c)) (Rep1) (EDC_UnderAssess) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	high	WW: - SW: - DW: - GW: - RW: - BF: -
88-85-7	201-861-7	Dinoseb		vPvM & PMT	PMT (vP, M &T)	vP: measured max t1/2 (d): w=n.d.; s=340(vP); sed=n.d.	UBA: vM EC: M exp log Koc=2.9	(SVHC:Toxic for reproduction (Article 57c)) (Rep1) (DNEL) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	high	WW: - SW: max 23 ng/L (S01) DW: - GW: - RW: - BF: -
25550-51-0	247-094-1	Hexahydromethylphthalic anhydride		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 39d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=2.1 (2a)	(SVHC:Respiratory sensitising properties (Article 57(f) - human health)) (STOTRE_BroadConsensus) (SINlist: Classified respiratory sensitizer concluded to be a SVHC by ECHA Member State Committee.)	high	WW: - SW: - DW: - GW: - RW: - BF: -
561-41-1	209-218-2	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol		PMT	Not PMT/vPvM (vP, Not M &T)	vP: Due to lack of other information the substance was assessed by PBT assessment in water. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: M EC: Not M exp log Koc=3.4	(SVHC:Carcinogenic (Article 57a)) (Carc1ab) (PBT_BroadConses) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
62037-80-3	700-242-3	Ammonium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate		vPvM & PMT	vPvM & PMT	vP: short-chain PFAS, on SVHC list - vPvB substance	UBA: vM EC: vM exp log Koc=1.1	(SVHC:Equivalent level of concern having probable serious effects to human health (Article 57(f) - human health)#Equivalent level of concern having probable serious effects to the environment (Article 57(f) -	medium	WW: - SW: - DW: max 11 ng/L (D06) GW: - RW: - BF: -

PMT/vPvM substances registered under REACH in Moderate-priority Category C

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
								environment)) (PBT_UnderAssess)		
375-73-5	206-793-1	1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonic acid	(s1)249-616-3; (s1)444-440-5; (s1)452-310-4; (s2)432-660-4; (s2)468-770-4; (s2)477-300-7; (s2)478-340-8; (p)206-793-1	vPvM & PMT	vPvM & PMT	vP: short-chain PFAS, on SVHC list - vPvB substance	UBA: vM EC: vM exp log Koc=1.4	(SVHC:Equivalent level of concern having probable serious effects to human health (Article 57(f) - human health)#Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment))	medium	WW: max 26 ng/L (W01) SW: - DW: max 19 ng/L (D06,D02,D01,D05) GW: max 25 ng/L (G11,G01,G05,G12) RW: max 6 ng/L (R02) BF: -
98-95-3	202-716-0	Nitrobenzene		vPvM & PMT	vPvM & PMT	Potential P/vP++: biodegradation screening tests give conflicting results, but this is found in monitoring studies	UBA: vM EC: vM exp log Koc=1.7	(SVHC:Toxic for reproduction (Article 57c)) (Carc2) (Rep1) (EDC_UnderAssess) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	medium	WW: - SW: - DW: max 100 000 ng/L (D02) GW: - RW: - BF: -
1912-24-9	217-617-8	Atrazine		vPvM & PMT	vPvM & PMT	Potential P/vP++: estimated t1/2 (error factor 10) = 248d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: vM exp log Koc=1.4	(Ecotox_Envirotox) (Pro.S.P._ED)	medium	WW: max 732 ng/L (W06,W08) SW: max 5 170 ng/L (S01) DW: max 1 900 ng/L (D02,D21,D04) GW: max 3 450 ng/L (G07,G01,G13) RW: max 28 ng/L (R03) BF: -
115-96-8	204-118-5	Tris(2-chloroethyl) phosphate		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 64d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: vM EC: M min Dow=1.7 (2a)	(SVHC:Toxic for reproduction (Article 57c)) (Carc2) (Rep1) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	medium	WW: max 2 400 ng/L (W08) SW: max 2 683 ng/L (S01) DW: max 470 ng/L (D04,D21,D03) GW: max 740 ng/L (G04) RW: max 338 ng/L (R05,R03)

PMT/vPvM substances registered under REACH in Moderate-priority Category C

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
										BF: max 171 ng/L (B01)
3380-34-5	222-182-2	Triclosan		vPvM & PMT	PMT (vP-WoE, M &T)	Potential P/vP++: The P conclusion of triclosan remains controversial, with P assessment still under development. It is observed in monitoring studies (UBA, 2019), indicating it may be P enought to reach drinking water.	UBA: vM EC: M exp log Koc=2.4	(PBT_UnderAssess) (EDC_UnderAssess) (Ecotox_PMT2019) (Ecotox_Envirotox) (SINlist:Triclosan is very toxic to aquatic life and endocrine disrupting effects have been reported. It is potentially bioaccumulative and has been widely found in both humans and the environment.) (Pro.S.P._ED)	medium	WW: max 378 000 ng/L (W12,W07,W10,W11) SW: max 1 023 ng/L (S06,S01,S03) DW: max 734 ng/L (D09,D17,D04,D07) GW: max 2 110 ng/L (G04,G01,G13,G15) RW: - BF: -
120-12-7	204-371-1	Anthracene	(p)204-371-1; (p)269-110-6; (p)292-602-7; (p)292-603-2; (p)292-604-8; (p)295-278-5	PMT	Not PMT/vPvM (P, Not M &T)	P: On SVHC list - PBT substance	UBA: M EC: Not M exp log Koc=3.9	(SVHC:PBT (Article 57d)) (PBT_BroadConses) (Ecotox_PMT2019) (Ecotox_Envirotox) (SINlist:Substance is concluded to be PBT by European Chemicals Bureau PBT Working Group.)	medium	WW: - SW: max 65 ng/L (S01) DW: - GW: detected (G05) RW: - BF: -
220133-51-7	452-310-4	dimethyl(phenyl)sulfanium nonafluorobutane-1-sulfonate		PMT	Potential PMT/vPvM (vP, Pot.M/vM &T)	vP: on SVHC list - vPvB substance	UBA: M EC: Pot. M/vM min Dow=1.3 (2c)	(SVHC:Equivalent level of concern having probable serious effects to human health (Article 57(f) - human health)#Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment))	low	WW: - SW: - DW: - GW: - RW: - BF: -
120-71-8	204-419-1	6-methoxy-m-toluidine		PMT	Potential PMT/vPvM (vP-WoE, Pot.M/vM &T)	Potential P/vP++: estimated t1/2 (error factor 10) = 29d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified	UBA: M EC: Pot. M/vM min Dow=0.9 (2c)	(SVHC:Carcinogenic (Article 57a)) (Carc1ab) (SINlist: Classified CMR according to Annex VI of Regulation 1272/2008)	low	WW: - SW: - DW: - GW: -

PMT/vPvM substances registered under REACH in Moderate-priority Category C

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	T Rationale	Emission Index	Detection (ref index)
						MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))				RW: - BF: -
25628-08-4	700-536-1	tetraethylazanium nonafluorobutane-1-sulfonate		vPvM & PMT	PMT (vP, M &T)	vP: short-chain PFAS, on SVHC list - vPvB substance	UBA: vM EC: M min Dow=0.3 (2c)	(SVHC:Equivalent level of concern having probable serious effects to human health (Article 57(f) - human health)#Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment))	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

4 Recommendations

Removing PMT/vPvM substances from the environment or during drinking water production is expensive and, in most cases, ineffective. From a socio-economic viewpoint, preventing and minimising emissions is clearly the best solution (Hale et al., 2022). Manufacturers, importers, downstream users, local authorities, water suppliers, NGOs, the European Commission, ECHA and member states can all ultimately work together to minimise emissions of the 343 PMT/vPvM substances in the UBA list. This will help protect drinking water resources and freshwater environments for future generations.

4.1 Manufacturers, importers and downstream users

The UBA list of PMT/vPvM substances in the REACH registration data base is fit for purpose and ready to use for registrants and downstream users, as they can immediately act to reduce and minimise emissions of these substances throughout their whole life cycle. If the necessary and appropriate risk mitigation measures (RMM) are put into place, regulatory measures for PMT/vPvM substances may be avoided.

Manufacturers, importers and downstream users should critically consider if the use of a PMT/vPvM substance is essential (Cousins et al., 2019), or if there are more benign alternatives available. Recently, a method for integrating the PMT/vPvM criteria into an alternatives assessment framework has been proposed (Zheng et al., 2021, 2019). In cases where uses of a PMT/vPvM substance are essential, registrants should perform an emission characterisation to see if RMMs should be put in place. This can be done using the similar protocols that exist for PBT/vPvB substances (ECHA, 2017).

Another important recommendation is to address data gaps. Many PMT/vPvM conclusions were made based on weight-of-evidence only, rather than e.g. simulated half-lives or experimentally determined log K_{OC} values. Registrants and downstream users are encouraged to provide the results of missing persistency or log K_{OC} testing in their REACH registration dossier.

A full toxicity assessment, particularly through chronic long-term oral exposure, is encouraged for all vPvM substances, as well as the 421 substances in Annex A which are considered persistent and mobile. Collectively for these substances there lacks a high-quality consensus conclusion that the criteria for T is met.

For all identified persistent and mobile substances in this report, registrants and downstream users should ensure that there are analytical methods and analytical standards available to local authorities and water researchers, so these substances can be monitored.

4.2 Local authorities and water suppliers

The UBA list of PMT/vPvM substances in the REACH registration data base is fit for purpose and ready to use for local authorities, water suppliers and producers of drinking water, as well as water researchers, as they can immediately add the substances to their monitoring programs.

Local authorities responsible for permitting industrial emission can oblige the plant operator to derive conditions for safe use during the permitting process of an industrial installation.

Many of the most mobile substances are difficult to monitor because of a "gap" in suitable analytical methods (Reemtsma et al., 2016). Only if manufacturers, importers and downstream users provide missing analytical standards a monitoring will be possible.

Many PMT/vPvM substances have never or rarely been monitored for even if analytical methods do exist ("monitoring gap") (Arp et al., 2023a). It is apparent from the substantial number of substances detected in drinking water resources that meet the PMT/vPvM criteria (Arp et al., 2023b) that expanding monitoring programs to PMT/vPvM substances is a pressing issue and an important recommendation.

Local authorities at the watershed scale should use the UBA list to identify emitters of PMT/vPvM substances within their jurisdiction. The development of source control schemes facilitate communication between the emitters of PMT/vPvM substances and water suppliers that are monitoring or tasked with remediating them. Such communication may result in collective action will reduce exposure of the PMT/vPvM substances, such as identifying upstream, preventative approaches that avoid high cost of expensive and ineffective end-of-pipe remediation.

Any drinking water producer or water researcher in Europe is able to use their own analytical laboratory to carry out tests that address the lack of persistence data for substances detected in their own sources of drinking water. A cheaper and simplified approach to determine half-lives in freshwater, following the OECD 309 guideline, but without expensive ^{14}C-labelled test compounds (Hofman-Caris and Claßen, 2020), was demonstrated to be suitable during the EU-wide regulation of 1,4 dioxane (ECHA, 2021).

4.3 European Commission, ECHA and Member States

The UBA list of PMT/vPvM substances in the REACH registration data base is fit for purpose and ready to use for Member State Competent Authorities (MS CAs), ECHA and the European Commission (EC) as they can immediately act to identify more SVHCs under article 57 (f) of REACH.

This report, in combination with Arp and Hale (2023), provides a basis for discussions for the adoption of PMT/vPvM criteria into the REACH regulation as it indicates both the number and identity of substances that would be impacted by enacting this legislation. The benefits of such action include increased human and environmental health benefits, reduced remediation costs over long timescales and the encouragement of the green innovation space for non-persistent, non-toxic substances, or eco-friendly material replacements.

4.4 NGOs

The UBA list of PMT/vPvM substances is fit for purpose and ready to use for non-governmental organisations (NGOs) working with chemical safety, environmental health or water quality. NGOs should inform their members and should encourage policy changes that lead to lower use, lower environmental emissions and the use of less hazardous alternatives. As an example of this, the NGO ChemSec (International Chemical Secretariat) added 16 PMT/vPvM substances on their "Substitute It Now" list in 2019 (ChemSec, 2019). NGOs working at the local level should ensure that local authorities are aware of PMT/vPvM substances potentially contaminate their watershed and encourage local industry to minimise emissions.

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A Persistent and mobile substances registered under REACH with currently no high-quality consensus conclusions that the criteria for T is met

Annex A presents 421 unique chemical structures belonging to 482 registered substances that are assessed to be persistent and mobile, but lack high-quality consensus conclusions that the criteria for T is met according to the PMT/vPvM criteria proposed in 2019 by UBA (Neumann and Schliebner, 2019). According to the less stringent criteria proposed in 2021 by the EC (European Commission, 2021b), this corresponds to 347 unique chemical structures belonging to 389 registered substances (note that many of these substances were presented in Tables 5-8, and are not all in Table A1). The main recommendation for these substances is to encourage more toxicity investigations for all substances to see if they should be reclassified as "PMT", and to encourage more simulated half-life test investigations for substances that meet the "Potential P/vP++" and vM criteria, to see if they should be reclassified as "vPvM".

Table A1: Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
27213-90-7	248-326-4	Sodium diisobutylnaphthalenesulphonate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: measured max t1/2 (d): w=n.d.; s=137(P); sed=n.d.	UBA: vM EC: vM exp log Koc=1.8	very high	WW: - SW: - DW: - GW: - RW: - BF: detected (B04)
52722-86-8	258-132-1	4-hydroxy-2,2,6,6-tetramethylpiperidine-1-ethanol		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in 301B tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-3.3 (2a)	very high	WW: - SW: detected (S02) DW: - GW: max 25 ng/L (G13) RW: - BF: -
1561-92-8	216-341-5	Sodium 2-methylprop-2-ene-1-sulphonate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in a 301A analogue test with preadaptation. Due to lack of other information the substance was assessed by PBT assessment. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.3	very high	WW: - SW: detected (S02) DW: - GW: detected (G08) RW: - BF: -

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Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
55589-62-3	259-715-3	6-methyl-1,2,3-oxathiazin-4(3H)-one 2,2-dioxide, potassium salt		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: All biodegradation results in 301A and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-1.9 (2b)	very high	WW: - SW: - DW: - GW: max 260 ng/L (G13) RW: - BF: detected (B04)
81-07-2	201-321-0	1,2-benzisothiazol-3(2H)-one 1,1-dioxide	(s1)204-886-1; (p)201-321-0; (t5)401-190-1	PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: the reported t1/2 in soil is 30d; however, it is found in several water samples in Schulze et al. (2019) and consistent indications of P across tested QSARs. Thus, it is considered sufficiently P in the environment	UBA: M EC: Not M exp log Koc=3.3	very high	WW: - SW: max 2 980 ng/L (S01,S01,S02) DW: - GW: max 14 ng/L (G13) RW: max 220 ng/L (R05) BF: -
1506-02-1	216-133-4	1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	(p)216-133-4; (p)244-240-6	PM (vP-WoE, M & Not T)	Not PMT/vPvM (vP-WoE, Not M & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 102d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: M EC: Not M exp log Koc=3.1	very high	WW: max 315 ng/L (W10,W03,W04,W10) SW: max 110 ng/L (S01,S03) DW: max 68 ng/L (D03,D02,D13) GW: - RW: max 1 ng/L (R03) BF: -
280-57-9	205-999-9	1,4-diazabicyclooctane		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 57d, found in several water samples in Schulze et al. (2019) and consistent indications of P across tested QSARs	UBA: M EC: Not M exp log Koc=3.4	very high	WW: - SW: detected (S02) DW: - GW: detected (G08-SW?) RW: - BF: -
126-86-3	204-809-1	2,4,7,9-tetramethyldec-5-yne-4,7-diol	(p)204-809-1; (s1)500-022-5	PM (P, M & Pot. T)	Not PMT/vPvM (P, Not M & Pot. T)	P: All biodegradation results in 301B and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: M EC: Not M exp log Koc=3.2	very high	WW: - SW: - DW: max 240 ng/L (D07) GW: - RW: max 135 ng/L (R05) BF: -
23386-52-9	245-629-3	Sodium 1,4-dicyclohexyl sulphonatosuccinate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: All biodegradation results in 301B, D and E and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-1.5 (2b)	very high	WW: - SW: detected (S02) DW: - GW: detected (G08) RW: - BF: - Note: MW>350
622-40-2	210-734-5	2-morpholinoethanol		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in 302B test. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.3	very high	WW: - SW: - DW: -

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Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
									GW: - RW: - BF: -
80475-32-7	279-481-6	N-[3-(dimethylamino)propyl]-3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctanesulphonamide N-oxide		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 16 855d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Not M exp log Koc=3.8	very high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
76199-85-4	278-388-8	2-cyano-2-[2,3-dihydro-3-(tetrahydro-2,4,6-trioxo-5(2H)-pyrimidinylidene)-1H-isoindol-1-ylidene]-N-methylacetamide		PM (P, vM & Not T)	PM (P, vM & Not T)	P: No significant biodegradation in 301F test. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-3.4 (2b)	high	WW: - SW: - DW: - GW: - RW: - BF: -
100-61-8	202-870-9	N-methylaniline	(p)202-870-9; (p)700-759-4	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 44d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM exp log Koc=1.7	high	WW: - SW: - DW: - GW: - RW: - BF: -
5026-74-4	225-716-2	p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 415d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) July 17, 1992;EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) July 17, 1992	UBA: vM EC: vM exp log Koc=1.9	high	WW: - SW: - DW: - GW: - RW: - BF: -
108-67-8	203-604-4	Mesitylene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 26d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M exp log Koc=2.7	high	WW: - SW: - DW: - GW: - RW: - BF: -

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Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
482-89-3	207-586-9	2-(1,3-dihydro-3-oxo-2H-indol-2-ylidene)-1,2-dihydro-3H-indol-3-one		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 189d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.9	high	WW: - SW: - DW: - GW: - RW: - BF: -
2540-36-5	807-374-1	sodium O-isopentyl dithiocarbonate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: measured max t1/2 (d): w=60(P); s=n.d.; sed=n.d.	UBA: vM EC: vM min Dow=-2.5 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
46830-22-2	256-283-8	Benzyldimethyl[2-[(1-oxoallyl)oxy]ethyl]ammonium chloride		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: Due to lack of other information the substance was assessed by PBT assessment in water. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-1.5 (2c)	high	WW: - SW: - DW: - GW: - RW: - BF: -
591-27-5	209-711-2	3-aminophenol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 39d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	UBA: vM EC: vM exp log Koc=2.0	high	WW: - SW: - DW: - GW: - RW: - BF: -
80-15-9	201-254-7	α,α-dimethylbenzyl hydroperoxide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 40d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) (1981); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) (1981)	UBA: vM EC: M min Dow=1.6 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -

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Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
75-08-1	200-837-3	Ethanethiol		PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 18d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=0.7	high	WW: - SW: - DW: - GW: - RW: - BF: -
5332-73-0	226-241-3	3-methoxypropylamine		PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 27d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-A (Determination of the "Ready" Biodegradability - Dissolved Organic Carbon (DOC) Die-Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); EU Method C.4-A (Determination of the "Ready" Biodegradability - Dissolved Organic Carbon (DOC) Die-Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=-1.0	high	WW: - SW: - DW: - GW: - RW: - BF: -
102-08-9	203-004-2	1,3-diphenyl-2-thiourea		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 46d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.6	high	WW: - SW: - DW: - GW: - RW: - BF: -
36177-92-1	252-899-6	N-butyl-2,2,6,6-tetramethylpiperidin-4-amine	(p)252-899-6; (p)500-311-6	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 23d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-2.0 (2c)	high	WW: - SW: - DW: - GW: - RW: - BF: -
89-98-5	201-956-3	2-chlorobenzaldehyde		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 21d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=1.8	high	WW: - SW: - DW: - GW: - RW: - BF: -
3710-84-7	223-055-4	N,N-diethylhydroxylamine		PM (vP-WoE, vM & Not T)	PM (vP-WoE, M & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 20d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability:	UBA: vM EC: M min Dow=-0.3 (2c)	high	WW: - SW: - DW: - GW: -

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Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)			RW: - BF: -
148528-05-6	700-111-0	2-Methyloctane-1,8-diamine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 14d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-4.5 (2c)	high	WW: - SW: - DW: - GW: - RW: - BF: -
298692-41-8	620-216-4	isopropyl (diaminophosphoryl) carbamate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 67d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: vM EC: vM min Dow=0.5 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
91-66-7	202-088-8	N,N-diethylaniline	(p)202-088-8; (s1)236-305-2	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 44d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.8	high	WW: - SW: - DW: - GW: - RW: - BF: -
867-13-0	212-757-6	Triethyl phosphonoacetate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: All biodegradation results in 301B and 302B imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
85-91-6	201-642-6	Methyl N-methylanthranilate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: measured max t1/2 (d): w=15(not P); s=30(not P); sed=135(P)	UBA: vM EC: vM exp log Koc=2.0	high	WW: - SW: - DW: - GW: - RW: - BF: -
109-59-1	203-685-6	2-isopropoxyethanol		PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 27d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=-0.6	high	WW: - SW: - DW: - GW: - RW: - BF: -
77-73-6	201-052-9	3a,4,7,7a-tetrahydro-4,7-methanoindene		PM (vP-WoE,	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 26d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation	UBA: vM EC: M exp log Koc=2.5	high	WW: - SW: max 6 ng/L (S01) DW: -

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Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
				vM & Pot. T)		screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))			GW: - RW: - BF: -
3101-60-8	221-453-2	p-tert-butylphenyl 1-(2,3-epoxy)propyl ether		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 65d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.9	high	WW: - SW: - DW: - GW: - RW: - BF: -
941-69-5	213-382-0	N-phenylmaleimide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 42d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=1.2 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
3006-86-8	221-111-2	Cyclohexylidenebis[tert-butyl] peroxide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 157d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) 31st July 1992; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) 17th July 1992;EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) 31st July 1992; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) 17th July 1992	UBA: vM EC: M exp log Koc=2.7	high	WW: - SW: - DW: - GW: - RW: - BF: -
3965-55-7	223-578-8	Sodium dimethyl 5-sulphonatoisophthalate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: All biodegradation results in 301C and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-2.9 (2a)	high	WW: - SW: detected (S02) DW: - GW: - RW: - BF: -
67-68-5	200-664-3	Dimethyl sulfoxide	(p)200-664-3; (p)218-617-0	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 22d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=-2.1	high	WW: - SW: - DW: - GW: - RW: - BF: -
95-31-8	202-409-1	N-tert-butylbenzothiazole-2-sulphenamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 86d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability:	UBA: vM EC: vM exp log Koc=1.3	high	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))			RW: - BF: -
34730-59-1	252-173-9	Sodium 2-[(2-aminoethyl)amino]ethanesulphonate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: All biodegradation results in 301E and 302C tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=-1.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
4246-51-9	224-207-2	3,3'-oxybis(ethyleneoxy)bis(propylamine)		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in enhanced OECD 301B (<10% in 60 d). This is considered to be sufficient to evaluate this substance as persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.5	high	WW: - SW: - DW: - GW: - RW: - BF: -
780-69-8	212-305-8	Triethoxy(phenyl)silane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 56d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	UBA: vM EC: vM min Dow=-0.4 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
4156-21-2	223-989-2	Sodium p-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]benzenesulphonate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 408d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-0.5 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
7087-68-5	230-392-0	Ethyldiisopropylamine		PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 66d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
173904-11-5	619-764-7	N,N'-[cyclohexane-1,3-diylbis(methylene)]bis(2-methylpropan-1-imine)		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 117d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability);	UBA: vM EC: vM min Dow=-1.1 (2c)	high	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						EPA OPPTS 835.3110 (Ready Biodegradability); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)			RW: - BF: -
141-98-0	205-517-7	O-isopropyl ethylthiocarbamate		PM (P, vM & Pot. T)	PM (P, M & Pot. T)	P: No significant biodegradation in 301D test. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: M min Dow=1.8 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
2896-70-0	220-778-7	2,2,6,6-tetramethyl-4-oxopiperidinooxy		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in 301F tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=0.3 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
13001-46-2	235-837-2	Potassium O-isobutyl dithiocarbonate	(s1)235-837-2; (s1)246-805-2	PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: measured max t1/2 (d): w=60(P); s=n.d.; sed=n.d.	UBA: vM EC: vM min Dow=-2.5 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
115-10-6	204-065-8	Dimethyl ether		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 38d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) Slightly Modified.; OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) Slightly Modified.	UBA: vM EC: vM min Dow=0.7 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
7529-22-8	231-391-8	4-methylmorpholine 4-oxide, monohydrate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: All biodegradation results in 301A and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-1.2 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
556-61-6	209-132-5	Methyl isothiocyanate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 22d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=0.6	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
1653-19-6	216-721-0	2,3-dichlorobuta-1,3-diene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 40d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=2.5 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
77-83-8	201-061-8	Ethyl 2,3-epoxy-3-phenylbutyrate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 39d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M exp log Koc=2.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
26762-93-6	247-988-1	Diisopropylbenzene hydroperoxide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 51d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.4	high	WW: - SW: - DW: - GW: - RW: - BF: -
-	434-800-1	3-(dichloroacetyl)-5-(2-furyl)-2,2-dimethyloxazolidine, 2,2-dichloro-1-[5-(2-furyl)-2,2-dimethyl-oxazolidin-3-yl]ethanone		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 167d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.7	high	WW: - SW: - DW: - GW: - RW: - BF: -
33704-61-9	251-649-3	1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one		PM (vP-WoE, vM & Not T)	PM (vP-WoE, M & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 80d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.3	high	WW: - SW: max 74 ng/L (S01) DW: - GW: - RW: - BF: -
64665-57-2	265-004-9	Sodium 4(or 5)-methyl-1H-benzotriazolide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 29d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.5	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
-	460-100-9	3-ethyl-1-methyl-1H-imidazol-3-ium ethyl sulfate	(s1)460-100-9; (s1)609-330-5; (s1)671-177-5; (s1)680-002-1	PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: All biodegradation results in 301B and 302C imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.2	high	WW: - SW: - DW: - GW: - RW: - BF: -
106-43-4	203-397-0	4-chlorotoluene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 33d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M exp log Koc=2.6	high	WW: - SW: - DW: - GW: - RW: - BF: -
75-37-6	200-866-1	1,1-difluoroethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 21d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.2	high	WW: - SW: - DW: - GW: - RW: - BF: -
22984-54-9	245-366-4	Butan-2-one O,O',O''-(methylsilylidyne)trioxime		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 124d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=0.4 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
98-13-5	202-640-8	Trichloro(phenyl)silane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 66d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	UBA: vM EC: vM min Dow=-0.4 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
3508-98-3	423-460-8	2-phenylhexanenitrile		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 20d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.6	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
474510-57-1	444-860-9	2-hydroxy-1-(4-(4-(2-hydroxy-2-methylpropionyl)benzyl)phenyl)-2-methylpropan-1-one		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 173d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) adopted 1992; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) adopted 1992;EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) adopted 1992; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) adopted 1992;EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) adopted 1992; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) adopted 1992; OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) adopted on 17 July 1992	UBA: vM EC: M exp log Koc=2.0	high	WW: - SW: - DW: - GW: - RW: - BF: -
98730-04-2	619-372-6	(RS)-2,2-dichloro-1-(3-methyl-2,3-dihydro-4H-1,4-benzoxazin-4-yl)ethanone		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 70d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M exp log Koc=2.0	high	WW: - SW: - DW: - GW: - RW: - BF: -
83411-71-6	280-445-7	Bis(2,4,4-trimethylpentyl)phosphinic acid		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 110d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-4.9 (2b)	high	WW: - SW: - DW: - GW: - RW: - BF: -
4431-83-8	224-631-8	2,5,7,10-tetraoxaundecane		PM (P, vM & Not T)	PM (P, vM & Not T)	P: estimated t1/2 (error factor 10) = 513d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-0.7 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
97-74-5	202-605-7	Tetramethylthiuram monosulphide		PM (vP-WoE,	PM (vP-WoE,	Potential P/vP++: estimated t1/2 (error factor 10) = 98d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation	UBA: vM EC: vM	high	WW: - SW: - DW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
				vM & Pot. T)	vM & Pot. T)	screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	min Dow=1.2 (2a)		GW: - RW: - BF: -
92484-48-5	403-080-9	Sodium 3-(2H-benzotriazol-2-yl)-5-sec-butyl-4-hydroxybenzenesulfonate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in 301A test. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-0.2 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
5614-37-9	445-090-6	methoxycyclopentane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 43d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.1	high	WW: - SW: - DW: - GW: - RW: - BF: -
122-20-3	204-528-4	1,1',1''-nitrilotripropan-2-ol	(p)204-528-4; (s1)427-360-5	PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 16d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=-0.9	high	WW: - SW: detected (S04) DW: - GW: - RW: - BF: -
37971-36-1	253-733-5	2-phosphonobutane-1,2,4-tricarboxylic acid	(s1)266-442-3; (p)253-733-5	PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: measured max t1/2 (d): w=n.d.; s=142(P); sed=n.d.	UBA: vM EC: vM min Dow=-19.2 (2b)	high	WW: - SW: - DW: - GW: - RW: - BF: -
126-58-9	204-794-1	2,2,2',2'-tetrakis(hydroxymethyl)-3,3'-oxydipropan-1-ol	(p)204-794-1; (s1)268-581-5	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 18d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test)	UBA: vM EC: vM min Dow=-1.8 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
108-18-9	203-558-5	Diisopropylamine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 29d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=0.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
7365-45-9	230-907-9	4-(2-hydroxyethyl)piperazin-1-ylethanesulphonic acid		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in 301D tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
27503-81-7	248-502-0	2-phenyl-1H-benzimidazole-5-sulphonic acid		PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 118d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-1.4 (2b)	high	WW: - SW: max 901 ng/L (S01) DW: - GW: - RW: - BF: -
71604-74-5	275-662-9	m-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 415d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM exp log Koc=1.9	high	WW: - SW: - DW: - GW: - RW: - BF: -
35948-25-5	252-813-7	6H-dibenz[c,e][1,2]oxaphosphorin 6-oxide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 66d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon	UBA: vM EC: vM exp log Koc=1.6	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)			
18015-76-4	241-922-5	Methanaminium, N-[4-[[4-(dimethylamino)phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, ethanedioate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 422d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-1.2 (2c)	high	WW: - SW: - DW: - GW: - RW: - BF: -
99-57-0	202-767-9	2-amino-4-nitrophenol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 140d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.9	high	WW: - SW: - DW: - GW: - RW: - BF: -
431-47-0	207-074-5	Methyl trifluoroacetate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: TFA, estimated t1/2 (error factor 10) = 54d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=-0.1	high	WW: - SW: - DW: - GW: - RW: - BF: -
75-45-6	200-871-9	Chlorodifluoromethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 29d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=0.6	high	WW: - SW: max 569 ng/L (S01) DW: - GW: - RW: - BF: -
2421-28-5	219-348-1	Benzophenone-3,3':4,4'-tetracarboxylic dianhydride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 149d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=2.1 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
-	444-960-2	Sodium ethyl phosphonate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in 301D test. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-6.8 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
26544-38-7	247-781-6	Dihydro-3-(tetrapropenyl)furan-2,5-dione		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 29d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M exp log Koc=2.9	high	WW: - SW: - DW: - GW: - RW: - BF: -
23235-61-2	245-509-0	2,2'-[oxybis(methylene)]bis[2-ethylpropane-1,3-diol]		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 38d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=0.9 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
2224-33-1	218-747-8	Butan-2-one O,O',O''-(vinylsilylidyne)trioxime		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 132d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=0.6 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
4402-30-6	224-536-1	1,1'-(methylimino)dipropan-2-ol		PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 20d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-3.8 (2c)	high	WW: - SW: - DW: - GW: - RW: - BF: -
7005-47-2	230-279-6	2-(dimethylamino)-2-methylpropan-1-ol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 45d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M exp log Koc=2.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
75-64-9	200-888-1	tert-butylamine	(p)200-888-1; ; (s2)451-580-0	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 20d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability:	UBA: vM EC: vM exp log Koc=-0.5	high	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))			RW: - BF: -
88-19-7	201-808-8	Toluene-2-sulphonamide		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in 301C test. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=0.4	high	WW: - SW: - DW: - GW: - RW: - BF: -
479-27-6	207-529-8	1,8-naphthylenediamine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 157d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=1.2 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
102-69-2	203-047-7	Tripropylamine		PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 44d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: vM EC: vM min Dow=-5.8 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
2680-03-7	220-237-5	N,N-dimethylacrylamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 15d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=1.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
1704-62-7	216-940-1	2-[2-(dimethylamino)ethoxy]ethanol		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: All biodegradation results in 301F and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM min Dow=-4.0 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
15894-70-9	240-032-4	N,N'''-1,6-hexanediylbis[N'-cyanoguanidine]		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 45d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method	UBA: vM EC: vM min Dow=-2.1 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)			
2996-92-1	221-066-9	Trimethoxyphenylsilane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 57d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	UBA: vM EC: vM exp log Koc=0.5	high	WW: - SW: - DW: - GW: - RW: - BF: -
1052-38-6	213-888-1	4,4'-[1,3-phenylenebis(azo)]bisbenzene-1,3-diamine	(p)213-888-1; (s2)939-264-5	PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: estimated t1/2 (error factor 10) = 6 874d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Pot. M/vM min Dow=1.4 (2c)	high	WW: - SW: - DW: - GW: - RW: - BF: -
840-65-3	212-661-4	Dimethyl naphthalene-2,6-dicarboxylate		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 11d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Pot. M/vM min Dow=3.5 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
5809-08-5	227-369-2	1,1,3,3-tetramethylbutyl hydroperoxide		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 63d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=2.9 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
2362-14-3	219-110-7	4,4'-cyclohexylidenedi-o-cresol		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 81d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=3.1 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
355-93-1	206-596-0	2,2,3,3,4,4,5,5-octafluoropentyl methacrylate		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE,	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 114d, weight-of-evidence (this study) based on all used QSARs and no biodeg.	UBA: M EC: Pot. M/vM min Dow=3.0 (2a)	high	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
					Pot.M/vM & Pot. T)	observed in majority of biodegradation screen tests for substance/main transformation products			RW: - BF: -
2212-81-9	218-664-7	[1,3-phenylenebis(1-methylethylidene)]bis[tert-butyl] peroxide		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 348d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Not M exp log Koc=4.0	high	WW: - SW: - DW: - GW: - RW: - BF: -
2226-96-2	218-760-9	4-hydroxy-2,2,6,6-tetramethylpiperidinoxyl	(p)218-760-9; (p)434-880-6; (s2)429-370-5	PM (P, M & Pot. T)	Not PMT/vPvM (P, Not M & Pot. T)	P: No significant biodegradation in 301A tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: M EC: Not M exp log Koc=3.2	high	WW: - SW: - DW: - GW: - RW: - BF: -
330459-31-9	810-533-8	3-phenyl-5-(2-thienyl)-1,2,4-oxadiazole		PM (vP, M & Pot. T)	Not PMT/vPvM (vP, Not M & Pot. T)	vP: measured max t1/2 (d): w=n.d.; s=277(vP); sed=6(not P)	UBA: M EC: Not M exp log Koc=3.5	high	WW: - SW: - DW: - GW: - RW: - BF: -
95962-14-4	404-240-0	2-(2-(4-methyl-3-cyclohexen-1-yl)propyl)cyclopentanone		PM (vP-WoE, M & Not T)	Not PMT/vPvM (vP-WoE, Not M & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 37d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Not M exp log Koc=3.7	high	WW: - SW: - DW: - GW: - RW: - BF: -
24748-23-0	429-320-2	methylethylketone peroxide trimer		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 165d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) EU method C.7 of 92/69/EEC; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) EU method C.7 of 92/69/EEC	UBA: M EC: Not M exp log Koc=3.2	high	WW: - SW: - DW: - GW: - RW: - BF: -
158237-07-1	605-140-1	4-(2-chlorophenyl)-N-cyclohexyl-N-ethyl-5-oxo-4,5-dihydro-1H-1,2,3,4-tetrazole-1-carboxamide		PM (vP, M & Not T)	Not PMT/vPvM (vP, Not M & Not T)	vP: measured max t1/2 (d): w=n.d.; s=199(vP); sed=n.d.	UBA: M EC: Not M exp log Koc=3.1	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
103-50-4	203-118-2	Dibenzyl ether		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 79d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Not M exp log Koc=3.9	high	WW: - SW: - DW: - GW: - RW: - BF: -
160232-08-6	605-203-3	tert-butyl [(2S,3R)-3-hydroxy-4-(isobutylamino)-1-phenylbutan-2-yl]carbamate		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 190d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Not M exp log Koc=3.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
382-28-5	206-841-1	2,2,3,3,5,5,6,6-octafluoro-4-(trifluoromethyl)morpholine		PM (vP, M & Pot. T)	Not PMT/vPvM (vP, Not M & Pot. T)	vP: short-chain PFAS, REACH dossier P evaluation (2020), SINlist evaluation (2019)	UBA: M EC: Not M exp log Koc=3.6	high	WW: - SW: - DW: - GW: - RW: - BF: -
603-35-0	210-036-0	Triphenylphosphine	(p)210-036-0; (s1)237-744-2; (s1)238-086-9; (s1)238-154-8; (s1)238-744-5; (s1)241-230-3; (s1)247-015-0; (s1)256-296-9	PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 90d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Not M exp log Koc=3.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
101-84-8	202-981-2	Diphenyl ether		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 21d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Not M exp log Koc=3.3	high	WW: - SW: max 141 ng/L (S01) DW: - GW: - RW: - BF: -
92-84-2	202-196-5	Phenothiazine		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 109d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle	UBA: M EC: Not M exp log Koc=3.8	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)			
3457-61-2	222-389-8	tert-butyl α,α-dimethylbenzyl peroxide		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 66d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Not M exp log Koc=3.3	high	WW: - SW: - DW: - GW: - RW: - BF: -
6925-69-5	230-049-5	12H-phthaloperin-12-one		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 62d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Not M exp log Koc=3.4	high	WW: - SW: - DW: - GW: - RW: - BF: -
12108-13-3	235-166-5	Tricarbonyl(methylcyclopentadienyl)manganese		PM (vP, M & Not T)	Not PMT/vPvM (vP, Not M & Not T)	vP: No significant biodegradation in 301D tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: M EC: Not M exp log Koc=3.4	high	WW: - SW: - DW: - GW: - RW: - BF: -
105-05-5	203-265-2	1,4-diethylbenzene		PM (vP-WoE, M & Not T)	Not PMT/vPvM (vP-WoE, Not M & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 27d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Not M exp log Koc=3.1	high	WW: - SW: - DW: - GW: - RW: - BF: -
124172-53-8	413-610-0	N,N'-1,6-hexanediylbis(N-(2,2,6,6-tetramethyl-piperidin-4-yl)formamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 375d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-B (Determination of the "Ready" Biodegradability - Modified OECD Screening Test); EU Method C.4-B (Determination of the "Ready" Biodegradability - Modified OECD Screening Test); EU Method C.4-B (Determination of the "Ready" Biodegradability - Modified OECD Screening Test); EU Method C.4-B (Determination of the "Ready" Biodegradability - Modified OECD Screening Test)	UBA: vM EC: vM min Dow=-8.7 (2c)	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
4193-55-9	224-073-5	Disodium 4,4'-bis[6-anilino-[4-[bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]stilbene-2,2'-disulphonate	(s1)224-073-5; (s1)275-031-8	PM (P, vM & Pot. T)	PM (P, M & Pot. T)	P: All biodegradation results in 301A and 302B tests imply no significant biodegradation. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: M min Dow=-0.5 (2c)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
117428-22-5	601-478-9	picoxystrobin (ISO); methyl (2E)-3-methoxy-2-[2-({[6-(trifluoromethyl)pyridin-2-yl]oxy}methyl)phenyl]acrylate		PM (P, vM & Pot. T)	PM (P, M & Pot. T)	P: measured max t1/2 (d): w=56(P); s=73(not P); sed=67(not P)	UBA: vM EC: M exp log Koc=2.9	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
34206-40-1	251-882-0	Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 226d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=0.4 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
16470-24-9	240-521-2	Tetrasodium 4,4'-bis[[4-[bis(2-hydroxyethyl)amino]-6-(4-sulphonatoanilino)-1,3,5-triazin-2-yl]amino]stilbene-2,2'-disulphonate]		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: IFS QSAR results in P, no biodeg. observed in other QSARs or majority of biodegradation screen tests, e.g. ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method);ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method); EU Method C.5 (Degradation: Biochemical Oxygen Demand);ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method);ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method); EU Method C.5 (Degradation: Biochemical Oxygen Demand); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=0.9	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
201792-73-6	421-880-6	disodium 4-amino-6-((4-((4-(2,4-diaminophenyl)azo)phenylsulfamoyl)phenyl)azo)-5-hydroxy-3-((4-		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in 302B test. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=-0.5	high	WW: - SW: - DW: - GW: - RW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
		nitrophenyl)azo)naphthalene-2,7-disulfonate							BF: - Note: MW>350
80-51-3	201-286-1	4,4'-oxydi(benzenesulphonohydrazide)		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 519d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=1.2 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
42774-15-2	419-710-0	N,N'-bis(2,2,6,6-tetramethyl-4-piperidyl)isophthalamide		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 404d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-4.3 (2c)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
12239-87-1	235-476-0	Copper chlorophthalocyanine		PM (P, vM & Pot. T)	PM (P, M & Pot. T)	P: No significant biodegradation in 301C and F tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: M min Dow=1.6 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
68971-49-3	273-468-9	Hexasodium 2,2'-[vinylenebis[(3-sulphonato-4,1-phenylene)imino[6-[bis(2-hydroxyethyl)amino]-1,3,5-triazine-4,2-diyl]imino]]bis(benzene-1,4-disulphonate)		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: IFS QSAR results in P, no biodeg. observed in other QSARs or majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.4	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
61260-55-7	262-679-1	N,N'-bis(2,2,6,6-tetramethylpiperidin-4-yl)hexane-1,6-diamine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 319d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-A (Determination of the "Ready" Biodegradability - Dissolved Organic Carbon (DOC) Die-Away Test); EU Method C.4-A (Determination of the "Ready" Biodegradability - Dissolved Organic Carbon (DOC) Die-Away Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-7.1 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
67786-25-8	267-097-1	Tetrasodium 4,4'-bis[[4-[bis(2-hydroxypropyl)amino]-6-[(4-sulphonatophenyl)amino]-1,3,5-triazin-2-yl]amino]-stilbene-2,2'-disulphonate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: IFS QSAR results in P, no biodeg. observed in other QSARs or majority of biodegradation screen tests, e.g. EPA OTS 796.3180 (Ready Biodegradability: Modified AFNOR Test);ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method); EU Method C.5 (Degradation: Biochemical Oxygen Demand);ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method);ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method); EU Method C.5 (Degradation: Biochemical Oxygen Demand)	UBA: vM EC: vM exp log Koc=0.9	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
14516-71-3	238-523-3	(butylamine)[[2,2'-thiobis[4-(1,1,3,3-tetramethylbutyl)phenolato]](2-)-O,O',S]nickel		PM (P, vM & Pot. T)	PM (P, M & Pot. T)	P: estimated t1/2 (error factor 10) = 449d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.2	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
89331-94-2	403-830-5	6'-(dibutylamino)-3'-methyl-2'-(phenylamino)spiro[isobenzofuran-1(3H),9-(9H)-xanthen]-3-one		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 177d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.5 (Degradation: Biochemical Oxygen Demand); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.5 (Degradation: Biochemical Oxygen Demand); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.6 (Degradation: Chemical Oxygen Demand); EU Method C.6 (Degradation: Chemical Oxygen Demand); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.8	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
34036-80-1	433-360-6	2-butanone-O,O',O''-(phenylsilylidyne)trioxime		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 210d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=0.4 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
13676-54-5	237-163-4	1,1'-(methylenedi-p-phenylene)bismaleimide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 348d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test) EC 440/2008; OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) 1992	UBA: vM EC: M exp log Koc=3.0	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
-	413-110-2	1-[2,6-bis(3,4-dimethylphenyl)-hexahydro-[1,3]dioxino[5,4-d][1,3]dioxin-4-yl]ethane-1,2-diol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 306d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) : Japanese MITI study	UBA: vM EC: vM exp log Koc=0.4	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
6358-31-2	228-768-4	2-[(2-methoxy-4-nitrophenyl)azo]-N-(2-methoxyphenyl)-3-oxobutyramide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 258d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=2.5 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
34454-97-2	252-043-1	1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-N-methylbutane-1-sulphonamide		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 723d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
-	401-540-3	3,6-bis(4-chlorophenyl)-1H,2H,4H,5H-pyrrolo[3,4-c]pyrrole-1,4-dione		PM (P, M & Not T)	Potential PMT/vPvM (P, Pot.M/vM & Not T)	P: No significant biodegradation in 301B tests. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: M EC: Pot. M/vM min Dow=1.9 (2b)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
32492-61-8	500-082-2	4,4'-Isopropylidenediphenol, ethoxylated		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: estimated t1/2 (error factor 10) = 2 410d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready	UBA: M EC: Pot. M/vM min Dow=2.6 (2a)	high	WW: - SW: - DW: - GW: - RW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)			BF: - Note: MW>350
74336-59-7	277-823-9	3-[(4-chloro-2-nitrophenyl)azo]-2-methylpyrazolo[5,1-b]quinazolin-9(1H)-one		PM (vP, M & Not T)	Potential PMT/vPvM (vP, Pot.M/vM & Not T)	vP: Due to lack of other information the substance was assessed by PBT assessment in water. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: M EC: Pot. M/vM min Dow=2.0 (2b)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
34455-00-0	252-044-7	1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)butane-1-sulphonamide		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 595d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
5888-87-9	227-563-7	N,N'-hexane-1,6-diylbis(hexahydro-2-oxo-1H-azepine-1-carboxamide)		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 114d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
68937-41-7	273-066-3	Phenol, isopropylated, phosphate (3:1)		PM (P, M & Pot. T)	Not PMT/vPvM (P, Not M & Pot. T)	P: estimated t1/2 (error factor 10) = 504d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Not M exp log Koc=3.4	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
68442-68-2	270-485-3	Benzenamine, N-phenyl-, styrenated		PM (vP, M & Pot. T)	Not PMT/vPvM (vP, Not M & Pot. T)	vP: estimated t1/2 (error factor 10) = 628d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Not M exp log Koc=3.0	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
32509-66-3	251-073-2	Ethylene bis[3,3-bis(3-tert-butyl-4-hydroxyphenyl)butyrate]		PM (vP, M & Pot. T)	Not PMT/vPvM (vP, Not M & Pot. T)	vP: estimated t1/2 (error factor 10) = 2 262d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Not M exp log Koc=4.0	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
3618-72-2	222-813-1	2,2'-[[5-acetamido-4-[(2-bromo-4,6-dinitrophenyl)azo]-2-methoxyphenyl]imino]diethyl diacetate		PM (vP, M & Pot. T)	Not PMT/vPvM (vP, Not M & Pot. T)	vP: estimated t1/2 (error factor 10) = 1086d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: M EC: Not M exp log Koc=3.8	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
119344-86-4	438-340-0	2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one		PM (vP, M & Pot. T)	Not PMT/vPvM (vP, Not M & Pot. T)	vP: estimated t1/2 (error factor 10) = 816d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Not M exp log Koc=3.5	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
5281-04-9	226-109-5	Calcium 3-hydroxy-4-[(4-methyl-2-sulphonatophenyl)azo]-2-naphthoate	(s1)226-109-5; (s1)241-806-4; (s1)277-552-6	PM (P, M & Pot. T)	Not PMT/vPvM (P, Not M & Pot. T)	P: Biodegradation results in 301 C test <20% and persistence due to PBT assessment. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: M EC: Not M exp log Koc=3.6	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
59709-38-5	261-874-9	Methyl N-[4-[(2-bromo-6-chloro-4-nitrophenyl)azo]phenyl]-N-(3-methoxy-3-oxopropyl)-β-alaninate		PM (vP, M & Pot. T)	Not PMT/vPvM (vP, Not M & Pot. T)	vP: estimated t1/2 (error factor 10) = 660d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Not M exp log Koc=3.8	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
51868-46-3	257-486-4	N-[2-[(2-bromo-4,6-dinitrophenyl)azo]-5-(diallylamino)-4-methoxyphenyl]acetamide		PM (vP, M & Pot. T)	Not PMT/vPvM (vP, Not M & Pot. T)	vP: estimated t1/2 (error factor 10) = 1613d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: M EC: Not M exp log Koc=3.8	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
52829-07-9	258-207-9	Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 286d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Not M exp log Koc=3.5	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
665-66-7	211-560-2	Amantadine hydrochloride	(s1)211-560-2; (p)212-201-2; (s1)250-604-5	PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in 302B tests. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.6	medium	WW: max 500 ng/L (W12) SW: detected (S02) DW: - GW: detected (G08) RW: - BF: -
50-48-6	200-041-6	Amitriptyline	(p)200-041-6; (p)208-964-6	PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 248d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: M EC: Not M exp log Koc=4.0	medium	WW: max 1 490 ng/L (W12,W08) SW: max 71 ng/L (S06,S01) DW: max 1 ng/L (D09) GW: - RW: - BF: -
93413-69-5	618-944-2	1-[2-(dimethylamino)-1-(4-methoxyphenyl)ethyl]cyclohexanol		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 133d, weight-of-evidence by discovery in monitoring studies (UBA, 2019), and consistent indications of P across tested QSARs	UBA: M EC: Not M exp log Koc=3.1	medium	WW: max 1 110 ng/L (W12,W02,W05,W08) SW: max 1 501 ng/L (S06,S01) DW: max 1 ng/L (D05) GW: - RW: max 59 ng/L (R04) BF: max 5 ng/L (B07)
169051-76-7	805-807-9	1,2-dimethyl-3-propyl imidazolium bis((trifluoromethyl)sulfonyl)amide		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 731d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Pot. M/vM min Dow=1.9 (2b)	medium	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
2163-00-0	218-491-7	1,6-dichlorohexane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 46d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test) March 2006; OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test) March 2006	UBA: vM EC: M exp log Koc=2.5	low	WW: - SW: - DW: - GW: - RW: - BF: -
626-67-5	210-959-9	1-methylpiperidine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 39d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.4	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	473-300-6	1,3-dimethyl 2-[2-(2-amino-6-chloro-9H-purin-9-yl)ethyl]propanedioate	(p)473-300-6; (p)605-637-3	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 47d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=0.4 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
7787-93-1	232-136-3	Dichloro(3-chloropropyl)methylsilane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 44d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test)	UBA: vM EC: vM min Dow=0.8 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
634-93-5	211-219-8	2,4,6-trichloroaniline		PM (P, M & Pot. T)	Not PMT/vPvM (P, Not M & Pot. T)	P: measured max t1/2 (d): w=n.d.; s=n.d.; sed=143(P)	UBA: M EC: Not M exp log Koc=3.5	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	938-112-5	Reaction mass of (Z)-1,2-dichloro-1-fluoro-2 -(trifluoromethoxy)ethylene and (E)-1,2-dichloro-1-fluoro-2-(trifluoromethoxy)ethylene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 432d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.1 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: mixture

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
136465-81-1	420-380-5	(3S,4aS,8aS)-N-tert-butyldecahydro-3-isoquinolinecarboxamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 40d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)	UBA: vM EC: vM min Dow=-1.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: mixture
91078-64-7	293-346-9	Naphthalenesulfonic acids, branched and linear Bu derivs.., sodium salts		PM (P, vM & Not T)	PM (P, vM & Not T)	P: measured max t1/2 (d): w=n.d.; s=137(P); sed=n.d.	UBA: vM EC: vM exp log Koc=1.8	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: mixture
63500-71-0	405-040-6	A mixture of: cis-tetrahydro-2-isobutyl-4-methylpyran-4-ol; trans-tetrahydro-2-isobutyl-4-methylpyran-4-ol		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: No significant biodegradation in 301B test. The PBT assessment evaluates the substance to be persistent. Therefore, this substance is assessed to be persistent in water. (Berger et al. 2018)	UBA: vM EC: vM exp log Koc=1.4	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: mixture
544-01-4	208-857-4	Diisopentyl ether		PM (vP-WoE, vM & Not T)	PM (vP-WoE, M & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 57d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.9	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
811-97-2	212-377-0	Norflurane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 79d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.4	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
700874-87-9	615-064-0	{difluoro[(1,2,2-trifluoroethenyl)oxy]methoxy}trifluoromethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 934d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=1.2 (2a)	high	WW: - SW: - DW: - GW: - RW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
									BF: - Note: volatile
22174-70-5	244-815-1	3,3'-[methylenebis(oxymethylene)]bisheptane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 86d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.5	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
98-56-6	202-681-1	4-chloro-α,α,α-trifluorotoluene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 163d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.6	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
124-70-9	204-710-3	Dichloro(methyl)(vinyl)silane		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 53d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test)	UBA: M EC: Pot. M/vM min Dow=3.0 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
27247-96-7	248-363-6	2-ethylhexyl nitrate		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 27d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test) ISO 14593; OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test) ISO 14593	UBA: M EC: Not M exp log Koc=3.8	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
115-25-3	204-075-2	Octafluorocyclobutane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 222d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.4	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile

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Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
1187-93-5	214-703-7	Trifluoro(trifluoromethoxy)ethylene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 198d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=1.3 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
75-38-7	200-867-7	1,1-difluoroethylene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 19d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.5	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
-	471-480-0	(1E)-1,3,3,3-tetrafluoroprop-1-ene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 80d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=1.8 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
754-12-1	468-710-7	2,3,3,3-tetrafluoroprop-1-ene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 80d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) , version from July 17, 1992; OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) , version from July 17, 1992; OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.3	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
354-33-6	206-557-8	Pentafluoroethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 80d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=0.5	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
19430-93-4	243-053-7	3,3,4,4,5,5,6,6,6-nonafluorohexene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 818d, weight-of-evidence (this study) based on all used QSARs and no biodeg.	UBA: vM EC: M exp log Koc=3.0	high	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						observed in majority of biodegradation screen tests for substance/main transformation products			RW: - BF: - Note: volatile
116-15-4	204-127-4	Hexafluoropropene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 87d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.8	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
541-05-9	208-765-4	Hexamethylcyclotrisiloxane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 87d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	UBA: vM EC: M exp log Koc=2.7	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
102687-65-0	700-486-0	(1E)-1-chloro-3,3,3-trifluoroprop-1-ene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 121d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M min Dow=2.2 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
685-63-2	211-681-0	1,1,2,3,4,4-hexafluorobuta-1,3-diene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 21d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.2 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
-	419-170-6	1,1,1,3,3-pentafluoropropane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 83d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.0	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
66711-86-2	811-213-0	(2E)-1,1,1,4,4,4-hexafluoro-2-butene		PM (vP-WoE,	PM (vP-WoE,	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 524d, weight-of-evidence (this study) based on all used QSARs and no biodeg.	UBA: vM EC: vM exp log Koc=-0.3	high	WW: - SW: - DW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
				vM & Pot. T)	vM & Pot. T)	observed in majority of biodegradation screen tests for substance/main transformation products			GW: - RW: - BF: - Note: volatile
692-49-9	700-651-7	(2Z)-1,1,1,4,4,4-hexafluorobut-2-ene		PM (P, vM & Pot. T)	PM (P, M & Pot. T)	P: apolar PFAS, estimated t1/2 (error factor 10) = 424d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.5	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
-	425-320-1	1,1,1,3,3,3-hexafluoropropane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 425d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.0	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
428-59-1	207-050-4	Trifluoro(trifluoromethyl)oxirane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 656d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=1.8 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
76-19-7	200-941-9	Octafluoropropane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 884d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.3	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
75-73-0	200-896-5	Carbon tetrafluoride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 31d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.3	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
420-46-2	206-996-5	1,1,1-trifluoroethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 74d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.3	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
79-38-9	201-201-8	Chlorotrifluoroethylene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 30d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.9	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
76-16-4	200-939-8	Perfluoroethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 402d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.9	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
75-46-7	200-872-4	Trifluoromethane	(p)200-872-4; ; (t2)939-998-6	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, read-across, contains CF3. Volatile	UBA: vM EC: vM exp log Koc=0.0	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
431-89-0	207-079-2	1,1,1,2,3,3,3-heptafluoropropane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 416d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.1	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
75-54-7	200-877-1	Dichloro(methyl)silane		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 30d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	UBA: M EC: Pot. M/vM min Dow=2.6 (2a)	high	WW: - SW: - DW: - GW: - RW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
									BF: - Note: volatile
138495-42-8	420-640-8	(S,S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: apolar PFAS, estimated t1/2 (error factor 10) = 932d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
756-13-8	436-710-6	1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 13 525d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Pot. M/vM min Dow=3.4 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
355-37-3	206-581-9	Trideca-1,1,1,2,2,3,3,4,4,5,5,6,6-fluorohexane		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 1924d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Not M exp log Koc=3.7	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
355-42-0	206-585-0	Tetradecafluorohexane		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 11 420d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Not M exp log Koc=3.7	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
40573-09-9	442-390-9	1,1,2,2,3,3-hexafluoro-1-trifluoromethoxy-3-trifluorovinyloxypropane		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 3 660d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Not M exp log Koc=3.7	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
-	938-105-7	2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoroheptyl N-[6-({[(2,2,3,3,4,4,5,5,6,6,7,7		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE,	Potential P/vP++: long-chain PFAS, estimated t1/2 (error factor 10) = 2 610d, weight-of-evidence (this study) based on all used QSARs and no biodeg.	UBA: M EC: Pot. M/vM min Dow=1.9 (2b)		WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
		-dodecafluoroheptyl)oxy]carbonyl}amino)-3,3,5-trimethylhexyl]carbamate 2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoroheptyl N-[6-({[(2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoroheptyl)oxy]carbonyl}amino)-3,5,5-trimethylhexyl]carbamate			Pot.M/vM & Pot. T)	observed in majority of biodegradation screen tests for substance/main transformation products			RW: - BF: - Note: MW>350
2004-62-8	700-129-9	3-({6-[(2-cyanoethyl)amino]hexyl}amino)propanenitrile		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 36d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-6.1 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
3845-76-9	223-342-4	N-[3-(dimethylamino)propyl]acrylamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 28d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-3.5 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
1869-24-5	700-280-0	2-(trifluoromethyl)benzenesulfonamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 116d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. ISO DIS 9408 (Ultimate Aerobic Biodegradability - Method by Determining the Oxygen Demand in a Closed Respirometer);ISO DIS 9408 (Ultimate Aerobic Biodegradability - Method by Determining the Oxygen Demand in a Closed Respirometer); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=0.6 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
3423-28-7	222-315-4	8-isopropyl-8-azabicyclo[3.2.1]octan-3-one		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 52d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability:	UBA: vM EC: vM min Dow=-2.0 (2c)	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)			RW: - BF: -
338-65-8	688-133-6	2-Chloro-1,1-difluoroethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 28d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=0.6	low	WW: - SW: - DW: - GW: - RW: - BF: -
611-19-8	210-258-8	α,2-dichlorotoluene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 64d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.6	low	WW: - SW: - DW: - GW: - RW: - BF: -
95-23-8	202-401-8	5-amino-1,3-dihydro-2H-benzimidazol-2-one		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 57d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=-0.3 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
52605-52-4	258-038-0	1-(3-chlorophenyl)-4-(3-chloropropyl)piperaziniu m chloride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 186d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-4.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
93-70-9	202-269-1	2'-chloroacetoacetanilide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 35d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=1.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
1897-52-5	217-589-7	2,6-difluorobenzonitrile		PM (P, vM & Pot. T)	PM (P, M & Pot. T)	P: estimated t1/2 (error factor 10) = 595d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.6 (Degradation: Chemical Oxygen	UBA: vM EC: M min Dow=1.9 (2a)	low	WW: - SW: - DW: - GW: -

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Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Demand); EU Method C.6 (Degradation: Chemical Oxygen Demand); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)			RW: - BF: -
83-56-7	201-487-4	Naphthalene-1,5-diol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 23d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.4	low	WW: - SW: - DW: - GW: - RW: - BF: -
778-94-9	212-298-1	2-nitro-4-(trifluoromethyl)benzonitrile		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 145d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: M min Dow=2.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
118-45-6	204-251-9	4-chlorophthalic anhydride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 62d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) 1992; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) 1992	UBA: vM EC: vM exp log Koc=1.5	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	427-440-1	2-Methyl-3-methoxy benzoyl chloride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 27d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.8	low	WW: - SW: - DW: - GW: - RW: - BF: -
88196-70-7	618-126-5	(1R)-1-(3-methoxyphenyl)ethanamine	(p)618-126-5; (p)632-902-0; (p)700-849-3	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 18d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 A (Ready Biodegradability:	UBA: vM EC: vM min Dow=-3.9 (2c)	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						DOC Die Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test)			RW: - BF: -
3209-22-1	221-717-7	1,2-dichloro-3-nitrobenzene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 192d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.8	low	WW: - SW: - DW: - GW: - RW: - BF: -
105812-81-5	406-030-4	(-)-trans-4-(4'-fluorophenyl)-3-hydroxymethyl-N-methylpiperidine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 198d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)	UBA: vM EC: vM min Dow=-1.9 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
765-12-8	402-600-1	3,6,9,12-tetraoxatetradeca-1,13-diene		PM (P, vM & Not T)	PM (P, M & Not T)	P: estimated t1/2 (error factor 10) = 556d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	UBA: vM EC: M min Dow=1.8 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
756-80-9	212-053-9	O,O-dimethyl hydrogen dithiophosphate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 46d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability)	UBA: vM EC: vM min Dow=-0.7 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
14214-31-4	604-275-3	2-Chlor-3-isothiocyanato-1-propene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 34d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)	UBA: vM EC: M min Dow=2.1 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
1583-59-1	216-431-4	2,2-difluoro-1,3-benzodioxole		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 31d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready"	UBA: vM EC: vM min Dow=1.4 (2a)	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)			RW: - BF: -
421-50-1	207-005-9	1,1,1-trifluoroacetone		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: TFA, estimated t1/2 (error factor 10) = 88d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=0.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
3063-94-3	221-309-9	2,2,2-trifluoro-1-(trifluoromethyl)ethyl methacrylate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: long-chain PFAS, estimated t1/2 (error factor 10) = 411d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
1702-15-4	809-906-8	5-Trifluoromethyltetrazole sodium salt		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 88d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-0.4 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
36768-62-4	253-197-2	2,2,6,6-tetramethyl-4-piperidylamine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 38d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-4.4 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
153719-38-1	431-060-1	N-nitro-N-(3-methyl-3,6-dihydro-2H-1,3,5-oxadiazin-4-yl)amine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 65d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM exp log Koc=1.8	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
846023-54-9	700-445-7	1-(3-(2-methoxy-5-nitrophenoxy)propyl)-4-methylpiperazine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 230d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide)	UBA: vM EC: vM min Dow=-1.4 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
106797-53-9	402-670-3	2-hydroxy-4'-hydroxyethoxy-2-methylpropiophenone		PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 29d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=1.1	low	WW: - SW: - DW: - GW: - RW: - BF: -
421-83-0	207-009-0	Trifluoromethanesulphonyl chloride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 94d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-0.1 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
7305-71-7	423-800-5	2-amino-5-methylthiazole		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 50d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M min Dow=0.2 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
2752-17-2	220-395-5	2,2'-oxydi(ethylamine)		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 19d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-7.9 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
100-54-9	202-863-0	Nicotinonitrile		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 23d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability:	UBA: vM EC: vM exp log Koc=-0.1	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))			RW: - BF: -
100-68-5	202-878-2	Methyl phenyl sulphide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 27d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M exp log Koc=2.1	low	WW: - SW: - DW: - GW: - RW: - BF: -
141-91-3	205-509-3	2,6-dimethylmorpholine	(p)205-509-3; (p)229-353-0; (p)613-701-7	PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: measured max t1/2 (d): w=n.d.; s=149(P); sed=n.d.	UBA: vM EC: vM min Dow=-4.9 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
7526-26-3	231-388-1	Diphenyl methylphosphonate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 86d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.3	low	WW: - SW: - DW: - GW: - RW: - BF: -
23680-84-4	245-821-7	2-chloro-6,7-dimethoxyquinazolin-4-amine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 65d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M min Dow=2.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
91-30-5	202-058-4	5-amino-2-anilinobenzenesulphonic acid	(s3)276-464-5; (p)202-058-4	PM (P, vM & Pot. T)	PM (P, M & Pot. T)	P: estimated t1/2 (error factor 10) = 410d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.5 (Degradation: Biochemical Oxygen Demand); EU Method C.5 (Degradation: Biochemical Oxygen Demand); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.3	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
2409-55-4	219-314-6	2-tert-butyl-p-cresol		PM (vP-WoE, vM & Not T)	PM (vP-WoE, M & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 31d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M exp log Koc=2.7	low	WW: - SW: - DW: - GW: - RW: - BF: -
88-75-5	201-857-5	2-nitrophenol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 60d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=1.4	low	WW: - SW: max 44 ng/L (S01) DW: - GW: - RW: - BF: -
7027-11-4	411-490-4	3-cyano-3,5,5-trimethylcyclohexanone		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 70d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.6 (Degradation: Chemical Oxygen Demand); EU Method C.5 (Degradation: Biochemical Oxygen Demand) Cited as Directive 84/449/EEC, C.8;EU Method C.6 (Degradation: Chemical Oxygen Demand); EU Method C.5 (Degradation: Biochemical Oxygen Demand) Cited as Directive 84/449/EEC, C.8; OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: vM EC: vM min Dow=1.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
24549-06-2	246-309-6	6-ethyl-2-toluidine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 66d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: vM EC: M exp log Koc=2.3	low	WW: - SW: - DW: - GW: - RW: - BF: -
2217-40-5	218-712-7	1,2,3,4-tetrahydro-1-naphthylamine	(p)218-712-7; (p)628-771-4; (p)629-348-7	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 34d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test); OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test)	UBA: vM EC: vM min Dow=-3.6 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
76114-73-3	616-291-8	2-Propynyl butylcarbamate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 25d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability -	UBA: vM EC: M min Dow=1.9 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)			
355-80-6	206-593-4	2,2,3,3,4,4,5,5-octafluoropentan-1-ol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 91d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.3	low	WW: - SW: - DW: - GW: - RW: - BF: -
1512-30-7	216-150-7	Difluoromethanesulphonyl chloride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 32d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-0.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
63141-09-3	613-147-6	1-(1-chlorocyclopropyl)ethanone		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 52d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)	UBA: vM EC: vM min Dow=1.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	431-270-1	Trifluoromethansulfonamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 87d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-3.5 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
919-94-8	618-804-0	2-ethoxy-2-methylbutane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 71d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.9	low	WW: - SW: - DW: - GW: - RW: - BF: -
373-88-6	206-771-1	2,2,2-trifluoroethylamine hydrochloride	(s1)206-771-1; (p)212-041-3	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 56d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-1.3 (2c)	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
									RW: - BF: -
2524-04-1	219-755-4	O,O-diethyl phosphorochloridothioate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 45d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=1.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
37052-78-1	253-326-2	1,3-dihydro-5-methoxy-2H-benzimidazole-2-thione		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 27d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=1.5	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	429-330-7	(TRIMETHYLENEDINITRILO)TETRAKISACETONITRILE		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 426d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-3.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
4498-67-3	224-794-5	1H-indazole-3-carboxylic acid		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 75d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-2.5 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
652-18-6	416-800-1	2,3,5,6-tetrafluorobenzoic acid		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: long-chain PFAS, estimated t1/2 (error factor 10) = 45 437d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-8.5 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	917-631-0	[2-Chloro-1,2,2-trifluoro-1-(trifluoromethyl)ethoxy] difluoroacetyl fluoride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 2 600d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
121-86-8	204-501-7	2-chloro-4-nitrotoluene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 109d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M exp log Koc=2.5	low	WW: - SW: - DW: - GW: - RW: - BF: -
375-72-4	206-792-6	1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonyl fluoride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 892d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=1.9 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
19190-61-5	700-677-9	methyl 2,2,3,3,4,4-hexafluoro-4-[(1,2,2-trifluoroethenyl)oxy]butanoate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 232d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
5306-85-4	226-159-8	1,4:3,6-dianhydro-2,5-di-O-methyl-D-glucitol		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 551d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM min Dow=0.8 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
89392-03-0	406-600-2	Phenyl N-(4,6-dimethoxypyrimidin-2-yl)carbamate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 50d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.5 (Degradation: Biochemical Oxygen Demand); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.5 (Degradation: Biochemical Oxygen Demand); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=2.1 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
1609-86-5	216-544-9	tert-butyl isocyanate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 32d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E	UBA: vM EC: vM min Dow=0.4 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						(Determination of the "Ready" Biodegradability - Closed Bottle Test)			
622-58-2	210-743-4	p-tolyl isocyanate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 28d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test)	UBA: vM EC: vM exp log Koc=1.6	low	WW: - SW: - DW: - GW: - RW: - BF: -
4433-79-8	224-638-6	4'-chloro-2',5'-dimethoxyacetoacetanilide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 47d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=1.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
120298-38-6	415-030-3	(S,S)-trans-4-(acetylamino)-5,6-dihydro-6-methyl-7,7-dioxo-4H-thieno[2,3-b]thiopyran-2-sulfonamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 173d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-1.5 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
141573-96-8	619-511-0	3-(difluoromethyl)-1-methyl-1 H-pyrazole-4-carbonyl chloride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 59d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-2.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	455-070-9	CTF-Isocyanat	(p)455-070-9; (p)608-783-6	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 177d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle	UBA: vM EC: M min Dow=1.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)			
593-53-3	209-796-6	Fluoromethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 17d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=-0.1	low	WW: - SW: - DW: - GW: - RW: - BF: -
39577-43-0	254-529-9	1-(3-chlorophenyl)-4-(3-chloropropyl)piperazine		PM (P, vM & Pot. T)	PM (P, M & Pot. T)	P: estimated t1/2 (error factor 10) = 420d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=-0.3 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
84332-87-6	282-716-5	Diammonium propylenebis(dithiocarbamate)		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 92d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-0.5 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	700-140-9	(1R,2S)-2,6-dimethyl-2,3-dihydro-1H-inden-1-amine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 43d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-3.3 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	700-575-4	Trans-2,6-dimethylindan-1-amine	(p)700-575-4; (p)937-760-6	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 43d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-3.3 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
354-38-1	206-559-9	2,2,2-trifluoroacetamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 54d, weight-of-evidence (this study) based on all used QSARs and no biodeg.	UBA: vM EC: vM min Dow=-3.7 (2a)	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						observed in majority of biodegradation screen tests for substance/main transformation products			RW: - BF: -
306-83-2	206-190-3	2,2-dichloro-1,1,1-trifluoroethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 182d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.3	low	WW: - SW: - DW: - GW: - RW: - BF: -
109-09-1	203-646-3	2-chloropyridine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 51d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=0.8	low	WW: - SW: - DW: - GW: - RW: - BF: -
6940-53-0	230-086-7	1-chloro-2,5-dimethoxy-4-nitrobenzene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 63d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=2.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
24731-73-5	246-438-8	N,N'-1,4-phenylenebis[3-oxobutyramide]		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 32d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.2	low	WW: - SW: - DW: - GW: - RW: - BF: -
446292-04-2	610-199-1	4-(4-Nitrophenyl)morpholin-3-one		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 125d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM min Dow=1.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
95-02-3	202-384-7	4-amino-2-methylpyrimidine-5-methylamine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 60d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: vM EC: vM min Dow=-6.6 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
61320-65-8	700-422-1	methyl 5-amino-4-cyano-3-methylthiophene-2-carboxylate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 31d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=1.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
31027-31-3	250-439-9	p-isopropylphenyl isocyanate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 44d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: M min Dow=1.9 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
354-32-5	206-556-2	Trifluoroacetyl chloride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: TFA, estimated t1/2 (error factor 10) = 83d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=1.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
422-05-9	207-012-7	2,2,3,3,3-pentafluoropropanol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 112d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.6	low	WW: - SW: - DW: - GW: - RW: - BF: -
407-25-0	206-982-9	Trifluoroacetic anhydride		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: TFA, estimated t1/2 (error factor 10) = 454d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=-0.8	low	WW: - SW: - DW: - GW: - RW: - BF: -
1003859-14-0	620-464-3	[(6-chloropyridin-3-yl)methyl](2,2-difluoroethyl)amine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 87d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-0.8 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
107-45-9	203-491-1	1,1,3,3-tetramethylbutylamine	(p)203-491-1; (s2)613-879-6	PM (vP-WoE,	PM (vP-WoE,	Potential P/vP++: estimated t1/2 (error factor 10) = 45d, weight-of-evidence (this	UBA: vM EC: vM	low	WW: - SW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
				vM & Pot. T)	vM & Pot. T)	study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	min Dow=-4.5 (2c)		DW: - GW: - RW: - BF: -
78-27-3	201-100-9	1-ethynylcyclohexanol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 33d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=1.5 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
99-08-1	202-728-6	3-nitrotoluene	(p)202-728-6; (s2)215-311-9	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 66d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M min Dow=2.4 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
54041-17-7	611-084-9	N-(4-fluorophenyl)-2-hydroxy-N-isopropylacetamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 86d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)	UBA: vM EC: M min Dow=1.6 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
846023-24-3	617-590-6	2-cyano-N-(2,4-dichloro-5-methoxyphenyl)acetamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 88d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide)	UBA: vM EC: M min Dow=1.6 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
95-74-9	202-446-3	3-chloro-p-toluidine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 73d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M min Dow=2.1 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
6226-25-1	458-390-7	2,2,2-trifluoroethyl trifluoromethanesulfonate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 488d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=0.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
4009-98-7	223-664-5	(methoxymethyl)triphenylphosphonium chloride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 121d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-1.2 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
652-18-6	435-890-3	2,3,4,5-tetrafluorobenzoic acid		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: long-chain PFAS, estimated t1/2 (error factor 10) = 45 437d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-3.9 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
29518-11-4	608-371-6	4-phenylmorpholin-3-one		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 30d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=0.4 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	454-800-3	2-Chloro-5-(chloromethyl)pyridine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 91d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.9	low	WW: - SW: - DW: - GW: - RW: - BF: -
332350-93-3	442-960-7	triphenyl(phenylmethyl) phosphonium 1,1,2,2,3,3,4,4,4-nonafluoro-N-methyl-1-butanesulfonamide (1:1)		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 979d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-4.2 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
383-63-1	206-851-6	Ethyl trifluoroacetate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: TFA, estimated t1/2 (error factor 10) = 57d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=0.2	low	WW: - SW: - DW: - GW: - RW: - BF: -
329-01-1	206-341-3	α,α,α-trifluoro-3-tolyl isocyanate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 97d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=2.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
107-56-2	203-503-5	O,O-diisopropyl hydrogen dithiophosphate	(s1)203-503-5; (s1)248-322-2; (p)700-768-3	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 111d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M min Dow=1.4 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
102061-82-5	422-100-7	sodium 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfinate	(s1)422-100-7; (p)468-070-9	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 858d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-6.1 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
117-21-5	204-179-8	3-chlorophthalic anhydride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 62d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) 1992; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) 1992	UBA: vM EC: M min Dow=2.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
118-75-2	204-274-4	Tetrachloro-p-benzoquinone		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 138d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=2.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
1999-85-5	217-886-1	α,α,α',α'-tetramethyl-m-xylene-α,α'-diol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 68d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.4	low	WW: - SW: - DW: - GW: - RW: - BF: -
361442-00-4	700-361-0	(2S)-2-{[(tert-butoxy)carbonyl]amino}-2-(3-hydroxyadamantan-1-yl)acetic acid		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 115d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-1.8 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
97384-48-0	407-870-4	2-benzyl-2-methyl-3-butenitrile		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 58d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: M min Dow=2.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
1263679-68-0	824-458-3	(1Z)-1-Chloro-2,3,3-trifluoroprop-1-ene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 29d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.9	low	WW: - SW: - DW: - GW: - RW: - BF: -
88-17-5	201-806-7	α,α,α-trifluoro-o-toluidine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 171d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=2.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
2403-88-5	219-291-2	2,2,6,6-tetramethylpiperidin-4-ol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 32d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-2.7 (2a)	low	WW: - SW: detected (S04) DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
6640-24-0	229-654-7	1-(m-chlorophenyl)piperazine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 81d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-3.5 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
97-52-9	202-588-6	4-nitro-o-anisidine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 104d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: M min Dow=1.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
29514-94-1	608-369-5	1,1,2,2-tetrafluoro-2-[(trifluorovinyl)oxy]ethanesulfonyl fluoride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 183d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=0.1 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	452-810-2	4-Hydroxy-3,5-dimethylbenzonitrile		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 34d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM exp log Koc=1.7	low	WW: - SW: - DW: - GW: - RW: - BF: -
5308-25-8	226-166-6	1-ethylpiperazine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 30d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM min Dow=-5.7 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
80012-43-7	616-785-3	9,13b-Dihydro-1H-dibenz(c,f)imidazo(1,5a)azepin-3-amin	(p)616-785-3; (s1)821-693-3	PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 113d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-3.3 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
26364-65-8	427-720-1	2-thiazolidinylidenecyanamide		PM (vP-WoE,	PM (vP-WoE,	Potential P/vP++: estimated t1/2 (error factor 10) = 30d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation	UBA: vM EC: vM	low	WW: - SW: - DW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
				vM & Pot. T)	vM & Pot. T)	screen tests, e.g. EU Method C.4-B (Determination of the "Ready" Biodegradability - Modified OECD Screening Test); EU Method C.4-B (Determination of the "Ready" Biodegradability - Modified OECD Screening Test)	min Dow=-0.1 (2a)		GW: - RW: - BF: -
375-01-9	206-782-1	2,2,3,3,4,4,4-heptafluorobutan-1-ol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 242d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.3	low	WW: - SW: - DW: - GW: - RW: - BF: -
771-61-9	212-235-8	Pentafluorophenol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 383 179d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.6	low	WW: - SW: - DW: - GW: - RW: - BF: -
4454-05-1	224-698-3	3,4-dihydro-2-methoxy-2H-pyran		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 101d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=1.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
203313-47-7	606-524-1	methyl cis-1-{[(2,5-dimethylphenyl)acetyl]amino}-4-methoxycyclohexanecarboxylate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 68d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: M min Dow=2.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
34893-92-0	252-276-9	1,3-dichloro-5-isocyanatobenzene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 77d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test)	UBA: vM EC: M min Dow=1.8 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
2524-03-0	219-754-9	O,O-dimethyl phosphorochloridothioate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 47d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability:	UBA: vM EC: vM min Dow=0.6 (2a)	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)			RW: - BF: -
1193-21-1	214-770-2	4,6-dichloropyrimidine		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 63d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-B (Determination of the "Ready" Biodegradability - Modified OECD Screening Test); EU Method C.4-B (Determination of the "Ready" Biodegradability - Modified OECD Screening Test)	UBA: vM EC: vM min Dow=1.5 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
42872-29-7	255-980-4	3-(1-cyanoethyl)benzoyl chloride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 52d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=2.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
698-29-3	211-814-2	4-amino-2-methylpyrimidine-5-carbonitrile		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 48d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: vM EC: vM min Dow=-0.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
18595-18-1	606-067-8	Methyl 3-amino-4-methylbenzoate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 24d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=1.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
35480-52-5	609-132-9	2,5-bis(2,2,2-trifluoroethoxy)benzoic acid		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: long-chain PFAS, estimated t1/2 (error factor 10) = 576d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-0.3 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -
3423-25-4	222-314-9	Endo-8-isopropyl-8-azabicyclo[3.2.1]octan-3-ol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 37d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM min Dow=-2.7 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
115-46-8	204-092-5	Azacyclonol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 71d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide);ISO DIS 9439 (Ultimate Aerobic Biodegradability - Method by Analysis of Released Carbon Dioxide)	UBA: vM EC: M min Dow=-0.4 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
90076-65-6	415-300-0	Lithium bis(trifluoromethylsulfonyl)imide		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: short-chain PFAS, estimated t1/2 (error factor 10) = 531d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=0.5	low	WW: - SW: - DW: - GW: - RW: - BF: -
55542-27-3	259-701-7	17β-hydroxy-17-(3-hydroxypropyl)androst-4-ene-4-one		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 198d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=2.5 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
118-83-2	204-280-7	5-chloro-α,α,α-trifluoro-2-nitrotoluene		PM (P, M & Pot. T)	Potential PMT/vPvM (P, Pot.M/vM & Pot. T)	P: estimated t1/2 (error factor 10) = 415d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Pot. M/vM min Dow=3.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
21981-33-9	244-691-9	1,1,1,3,3-pentachlorobutane		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: estimated t1/2 (error factor 10) = 673d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
2905-62-6	220-813-6	3,5-dichlorobenzoyl chloride		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 93d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test); OECD Guideline 310 (Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	UBA: M EC: Pot. M/vM min Dow=3.5 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
13185-09-6	236-138-5	1-benzyl-1,2-dihydro-3H-indazol-3-one, sodium salt		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE,	Potential P/vP++: estimated t1/2 (error factor 10) = 204d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability);	UBA: M EC: Pot. M/vM min Dow=2.4 (2b)	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
					Pot.M/vM & Pot. T)	EPA OPPTS 835.3110 (Ready Biodegradability); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)			RW: - BF: -
1017183-70-8	426-370-7	3-(4-fluorophenyl)-2-methylpropionylchloride		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 219d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=3.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
644-97-3	211-425-8	Dichloro(phenyl)phosphine		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 47d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: M EC: Pot. M/vM min Dow=3.4 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
161611-74-1	605-263-0	2,2,4-trifluoro-5-(trifluoromethoxy)-2H-1,3-dioxole		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 1834d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=3.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
5856-77-9	227-478-5	2,2-dimethylbutyryl chloride		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 35d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=3.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
26107-80-2	671-287-3	methyl 3,5-bis(trifluoromethyl)benzoate		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: long-chain PFAS, estimated t1/2 (error factor 10) = 365d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=3.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
3753-18-2	700-008-0	4,4'-bis(methoxymethyl)-1,1'-biphenyl		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 249d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Pot. M/vM min Dow=3.2 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
222408-90-4	606-964-4	2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-1,2,4-triazolidine-3-thione		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: estimated t1/2 (error factor 10) = 636d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=3.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	461-670-1	(7-methoxynaphthalen-1-yl)acetonitrile		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 36d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) and EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test)	UBA: M EC: Pot. M/vM min Dow=2.8 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
2100-42-7	218-267-9	1-chloro-2,5-dimethoxybenzene		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 30d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
101377-47-3	600-198-4	bis(4-fluorophenyl)methyl(4H-1,2,4-triazol-4yl-methyl)silane		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: estimated t1/2 (error factor 10) = 2 037d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=2.9 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
2253-52-3	218-849-2	O,O-diisobutyl hydrogen dithiophosphate	(s1)258-508-5; (s1)270-608-0; (p)218-849-2	PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 108d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=2.3 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
-	484-290-8	1,1,1,2,3,3-hexafluoro-4-(1,1,2,3,3,3-hexafluoropropoxy)pentane		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 5 501d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=3.5 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
3120-74-9	221-496-7	4-(methylthio)-m-cresol		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 28d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Pot. M/vM min Dow=3.4 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
79456-26-1	401-670-0	3-chloro-5-trifluoromethyl-2-pyridylamine		PM (P, M & Pot. T)	Potential PMT/vPvM (P, Pot.M/vM & Pot. T)	P: estimated t1/2 (error factor 10) = 488d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.5 (Degradation: Biochemical Oxygen Demand) 1984;EU Method C.5 (Degradation: Biochemical Oxygen Demand) 1984	UBA: M EC: Pot. M/vM min Dow=0.7 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
94695-48-4	619-058-9	2,3,4,5-tetrafluorobenzoyl chloride		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: long-chain PFAS, estimated t1/2 (error factor 10) = 77 401d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=2.9 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
4698-11-7	225-172-6	10-methoxy-5H-dibenz[b,f]azepine		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 195d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Pot. M/vM min Dow=2.9 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
118-69-4	204-269-7	2,6-dichlorotoluene		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 63d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Not M exp log Koc=3.2	low	WW: - SW: - DW: - GW: - RW: - BF: -
2781-00-2	220-479-1	Di-tert-butyl α,α,α',α'-tetramethyl-(p-phenylenedimethylene) diperoxide	(p)220-479-1; (p)246-678-3	PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 348d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability:	UBA: M EC: Not M exp log Koc=4.0	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)			RW: - BF: -
101-20-2	202-924-1	Triclocarban		PM (vP, M & Pot. T)	Not PMT/vPvM (vP, Not M & Pot. T)	vP: measured max t1/2 (d): w=n.d.; s=231(vP); sed=500(vP)	UBA: M EC: Not M exp log Koc=3.7	low	WW: max 617 ng/L (W12) SW: max 575 ng/L (S06,S01,S03) DW: - GW: - RW: - BF: -
114772-54-2	425-280-5	4'-(bromomethyl)-[1,1'-biphenyl]-2-carbonitrile	(p)425-280-5; (p)601-327-7	PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 88d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Not M exp log Koc=3.4	low	WW: - SW: - DW: - GW: - RW: - BF: -
2049-95-8	218-076-0	tert-pentylbenzene		PM (vP-WoE, M & Not T)	Not PMT/vPvM (vP-WoE, Not M & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 28d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Not M exp log Koc=3.5	low	WW: - SW: - DW: - GW: - RW: - BF: -
103-29-7	203-096-4	1,2-diphenylethane	(p)203-096-4; (p)273-494-0; (p)700-158-7	PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 71d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Not M exp log Koc=3.8	low	WW: - SW: - DW: - GW: - RW: - BF: -
1220100-43-5	700-737-4	N,N'-bis[2-hydroxy-3-(2,2,3,3-tetrafluoropropoxy)propyl]-N,N,N',N'-tetramethylethane-1,2-diaminium dichloride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 278d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=-0.4 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: -
135452-43-6	696-038-6	2-hydroxy-1-{1-[4-(2-hydroxy-2-methylpropanoyl)phenyl]-1,3,3-trimethyl-2,3-dihydro-1H-inden-5-yl}-2-methylpropan-1-one		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: estimated t1/2 (error factor 10) = 612d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon	UBA: M EC: Pot. M/vM min Dow=3.4 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)			
-	448-130-0	PERFLUORBUTANSULFONYLFLUORIDVINYLETHER		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 772d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=1.6 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
-	426-290-2	methyl 4-[4-(4-methoxybenzamido)-3-nitrophenyl]-3-methyl-4-oxobutanoate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 91d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test)	UBA: vM EC: M min Dow=2.5 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
1189052-95-6	700-812-1	sodium hydrogen (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)phosphonate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 5 535d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=-5.8 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
647-42-7	211-477-1	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 3 433d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M exp log Koc=2.4	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
-	468-970-1	[No public or meaningful name is available]		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 1073d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=2.0	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
35453-19-1	252-575-4	5-amino-2,4,6-triiodoisophthalic acid		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: weight-of-evidence (this study) based on all known QSARs and no biodeg. observed in majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric	UBA: vM EC: vM min Dow=-3.8 (2b)	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)			RW: - BF: - Note: MW>350
3590-84-9	222-733-7	Tetraoctyltin		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 17d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=0.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
10114-86-0	233-316-4	Disodium 3,3'-[carbonylbis[imino(3-methoxy-4,1-phenylene)azo]]bis[benzenesulphonate]	(s1)233-316-4; (s1)275-602-1	PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 558d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability); EPA OPPTS 835.3110 (Ready Biodegradability); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=-2.7 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
117516-16-2	833-066-1	2,3,3,3-tetrafluoro-2-[1,1,2,2,3,3,4,4-octafluoro-4-(fluorosulfonyl)butoxy]propanoyl fluoride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 9 276d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=1.6 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
92339-11-2	618-837-0	5-(Acetyl-(3-(acetyl-(3,5-bis(2,3-dihydroxypropylcarbamoyl)-2,4,6-triiodophenyl)amino)-2-hydroxypropyl)amino)-N,N'-bis(2,3-dihydroxypropyl)-2,4,6-triiodobenzene-1,3-dicarboxamide; 5,5'-((2-Hydroxytrimethylene)bis(acetylimino))bis(N,N'-bis(2,3-dihydroxypropyl)-		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: weight-of-evidence (this study) based on all known QSARs and no biodeg. observed in majority of biodegradation screen tests, e.g. ISO DIS 9408 (Ultimate Aerobic Biodegradability - Method by Determining the Oxygen Demand in a Closed Respirometer);ISO DIS 9408 (Ultimate Aerobic Biodegradability - Method by Determining the Oxygen Demand in a Closed Respirometer)	UBA: vM EC: vM min Dow=0.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
		2,4,6-triiodoisophthalamide);							
34455-22-6	608-993-8	N-[3-(dimethylamino)propyl]-3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-octane-1-sulfonamide		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 17 309d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=0.2 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
111453-32-8	601-093-6	rac-5-Amino-N-(2,3-dihydroxypropyl)-2,4,6-triiodoisophthalamic acid		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: weight-of-evidence (this study) based on all known QSARs and no biodeg. observed in majority of biodegradation screen tests, e.g. OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test); OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)	UBA: vM EC: vM min Dow=-3.7 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
1352319-02-8	936-882-7	1-(3-chloropyridin-2-yl)-3-{[5-(trifluoromethyl)-2H-1,2,3,4-tetrazol-2-yl]methyl}-1H-pyrazole-5-carboxylic acid		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 498d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-0.9 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
144728-59-6	604-439-4	2-(1,2-dichloro-1,2,2-trifluoroethoxy)-1,1,2,2-tetrafluoroethanesulfonyl fluoride		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 1523d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=1.8 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
75199-00-7	278-108-4	Trisodium 4-[[4-[[(2,3-dichloro-6-quinoxalinyl)carbonyl]amino]-2-sulphonatophenyl]azo]-4,5-dihydro-5-oxo-1-(4-sulphonatophenyl)-1H-pyrazole-3-carboxylate		PM (P, vM & Pot. T)	PM (P, vM & Pot. T)	P: estimated t1/2 (error factor 10) = 503d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: vM EC: vM min Dow=-4.7 (2b)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
171599-84-1	422-930-1	Pentasodium 7-(4-(4-(5-amino-4-sulfonato-2-(4-((2-(sulfonato-		PM (vP-WoE,	PM (vP-WoE,	Potential P/vP++: IFS QSAR results in P, no biodeg. observed in other QSARs or majority of biodegradation screen tests, e.g. OECD Guideline 301 F	UBA: vM EC: vM	low	WW: - SW: - DW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
		ethoxy)sulfonyl)phenylazo)phenylamino)-6-chloro-1,3,5-triazin-2-yl)amino-2-ureidophenylazo)naphtalene-1,3,6-trisulfonate		vM & Pot. T)	vM & Pot. T)	(Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	min Dow=-14.5 (2b)		GW: - RW: - BF: - Note: MW>350
37595-74-7	609-445-0	1,1,1-trifluoro-N-phenyl-N-[(trifluoromethyl)sulfonyl]methanesulfonamide		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: long-chain PFAS, estimated t1/2 (error factor 10) = 528d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=2.9 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
68391-08-2	269-927-8	Alcohols, C8-14, γ-ω-perfluoro		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: long-chain PFAS, measured max t1/2 (d): w=n.d.; s=313 243(vP); sed=n.d.	UBA: M EC: Pot. M/vM min Dow=2.9 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
53784-84-2	611-044-0	GAMMA-CYCLODEXTRINE, 6A,6B,6C,6D,6E,6F,6G,6H-OCTABROMO-6A,6B,6C,6D,6E,6F,6G,6H-OCTADEOXY-		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: estimated t1/2 (error factor 10) = 378 650d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide Evolution Test) 2008; OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) 1992	UBA: M EC: Pot. M/vM min Dow=3.5 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
213967-55-6	606-753-7	(E)-5-benzyl-1-(2-chloro-1,3-thiazol-5-ylmethyl)-3-methyl-N-nitro-1,3,5-triazinan-2-imine		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: estimated t1/2 (error factor 10) = 927d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=0.9 (2c)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
-	443-050-2	2,2,3,3,4,4,5,5,6,6-decafluoro-6-trifluorovinyloxyhexanenitrile		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 1321d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=3.4 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
204277-61-2	430-500-8	6-(2-chloro-6-cyano-4-nitrophenylazo)-4-methoxy-3-[N-(methoxycarbonylmethyl)-N-(1-methoxycarbonylethyl)amino]acetanilide		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: estimated t1/2 (error factor 10) = 712d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
137862-53-4	604-045-2	N-Pentanoyl-N-{[2'-(1H-tetrazol-5-yl)biphenyl-4-yl]methyl}-L-valine		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 174d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: M EC: Not M exp log Koc=3.1	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
467-63-0	207-396-6	p,p',p''-tris(dimethylamino)trityl alcohol		PM (vP, M & Pot. T)	Not PMT/vPvM (vP, Not M & Pot. T)	vP: estimated t1/2 (error factor 10) = 1526d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Not M exp log Koc=4.0	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
23911-85-5	424-210-0	2,2''-dihydroxy-4,4''-(2-hydroxy-propane-1,3-diyldioxy)dibenzophenone		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 80d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: M EC: Not M exp log Koc=3.9	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
182926-43-8	423-970-0	Trisodium 2,4-diamino-3,5-bis-[4-(2-sulfonatoethoxy)sulfonyl)phenylazo]benzenesulfonate		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: IFS QSAR results in P, no biodeg. observed in other QSARs or majority of biodegradation screen tests, e.g. OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test); OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	UBA: M EC: Not M exp log Koc=3.0	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
4404-43-7	224-548-7	4,4'-bis[4-[bis(2-hydroxyethyl)amino]-6-anilino-1,3,5-triazin-2-yl]amino]stilbene-2,2'-disulphonic acid		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: IFS QSAR results in P, no biodeg. observed in other QSARs or majority of biodegradation screen tests, e.g. ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method); EU Method C.5 (Degradation: Biochemical Oxygen Demand);ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method);ISO 5815 (Water quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD5) - Dilution and Seeding Method); EU Method C.5 (Degradation: Biochemical Oxygen Demand)	UBA: M EC: Not M exp log Koc=3.1	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350
68784-31-6	272-238-5	Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 170d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.6 (Degradation: Chemical Oxygen Demand); EU Method C.6 (Degradation: Chemical Oxygen Demand); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: vM EC: vM exp log Koc=1.4	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: mixture
8050-26-8	232-479-9	Resin acids and Rosin acids, esters with pentaerythritol	(p)232-479-9; (p)268-884-2	PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 65d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=1.5 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350, mixture
8050-25-7	232-478-3	Resin acids and Rosin acids, esters with triethylene glycol		PM (vP-WoE, vM & Not T)	PM (vP-WoE, M & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 229d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: M min Dow=2.4 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350, mixture

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
8050-31-5	232-482-5	Resin acids and Rosin acids, esters with glycerol		PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: estimated t1/2 (error factor 10) = 38d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM min Dow=1.5 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: - Note: MW>350, reaction mixture
-	940-543-9	1,1,2-trichloro-1,2-difluoroethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 111d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.9	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
15290-77-4	430-710-1	1,1,2,2,3,3,4-heptafluorocyclopentane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 152d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.4 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
13846-22-5	237-579-6	1,1,2,2,3,3-hexafluoro-1,3-bis[(trifluorovinyl)oxy]propane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 800d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.5 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
359-08-0	206-624-1	2-bromo-1,1-difluoroethylene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 27d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=1.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
-	413-830-7	2-(Difluoromethoxy)-1,1,1-trifluoroethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 190d, weight-of-evidence (this study) based on all used QSARs and no biodeg.	UBA: vM EC: vM exp log Koc=0.7	low	WW: - SW: - DW: - GW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
						observed in majority of biodegradation screen tests for substance/main transformation products			RW: - BF: - Note: volatile
33831-83-3	439-500-2	3,3,4,4-tetrafluoro-4-iodo-1-butene		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 81d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=3.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
75-68-3	200-891-8	1-chloro-1,1-difluoroethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 45d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test); OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	UBA: vM EC: vM exp log Koc=0.9	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
29118-25-0	826-544-6	(1Z)-1,3,3,3-Tetrafluoroprop-1-ene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 85d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=1.8 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
677-21-4	211-637-0	3,3,3-trifluoropropene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 77d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=1.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
111512-60-8	813-937-2	(1Z)-1-chloro-2,3,3,3-tetrafluoroprop-1-ene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 144d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) 1992	UBA: vM EC: M exp log Koc=2.1	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
356-24-1	206-600-0	Methyl heptafluorobutyrate		PM (vP-WoE,	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 263d, weight-of-evidence (this study) based on all used QSARs and no biodeg.	UBA: vM EC: M	low	WW: - SW: - DW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
				vM & Pot. T)		observed in majority of biodegradation screen tests for substance/main transformation products	min Dow=2.5 (2a)		GW: - RW: - BF: - Note: volatile
2356-53-8	219-094-1	1,2-dichloro-1,1,2-trifluoro-2-(trifluoromethoxy)ethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 1707d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
382-10-5	206-840-6	3,3,3-trifluoro-2-(trifluoromethyl)propene		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 524d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
75-63-8	200-887-6	Bromotrifluoromethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 93d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM exp log Koc=1.1	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
-	440-180-1	3M (TM) SPECIALTY GAS PFG-3480		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: short-chain PFAS, estimated t1/2 (error factor 10) = 584d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M min Dow=2.0 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
76-12-0	200-935-6	Tetrachloro-1,2-difluoroethane		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 404d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: M exp log Koc=2.4	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
756-12-7	690-995-3	1,1,1,3,4,4,4-heptafluoro-3-(trifluoromethyl)butan-2-one		PM (vP, M & Pot. T)	Potential PMT/vPvM (vP, Pot.M/vM & Pot. T)	vP: short-chain PFAS, estimated t1/2 (error factor 10) = 5 884d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=2.8 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
400-38-4	206-922-1	Isopropyl trifluoroacetate		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: TFA, estimated t1/2 (error factor 10) = 60d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
401-80-9	206-933-1	α,α,α,3-tetrafluorotoluene		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 685d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=3.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
10493-43-3	234-018-7	Trifluoro(pentafluoroethoxy)ethylene		PM (P, M & Pot. T)	Potential PMT/vPvM (P, Pot.M/vM & Pot. T)	P: short-chain PFAS, estimated t1/2 (error factor 10) = 438d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=3.3 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
374-27-6	206-775-3	3,3,4,4,4-pentafluorobut-1-ene		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 163d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=3.1 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
354-64-3	206-566-7	Pentafluoroiodoethane		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 190d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=2.6 (2a)	low	WW: - SW: - DW: - GW: - RW: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
									BF: - Note: volatile
406-58-6	430-250-1	1,1,1,3,3-pentafluorobutane		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 165d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=2.7 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
110-53-2	203-776-0	1-bromopentane		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot.M/vM & Pot. T)	Potential P/vP++: estimated t1/2 (error factor 10) = 19d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test); OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Pot. M/vM min Dow=3.5 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
-	938-148-1	1,2,3,4-tetrachloro-1,1,2,3,4,4-hexafluorobutane		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 2 244d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Not M exp log Koc=3.3	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
375-50-8	206-788-4	1,1,2,2,3,3,4,4-octafluoro-1,4-diiodobutane		PM (vP-WoE, M & Pot. T)	Not PMT/vPvM (vP-WoE, Not M & Pot. T)	Potential P/vP++: apolar PFAS, estimated t1/2 (error factor 10) = 602d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Not M exp log Koc=3.9	low	WW: - SW: - DW: - GW: - RW: - BF: - Note: volatile
105-59-9	203-312-7	2,2'-methyliminodiethanol	(p)203-312-7;(s2)434-840-8	PM (vP-WoE, vM & Not T)	PM (vP-WoE, vM & Not T)	Potential P/vP++: est. t1/2 = 17d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test);OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test);OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I));OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))	UBA: vM EC: vM exp log Koc=-1.6	high	WW: - SW: - DW: - GW: - RW: - BF: -

Annex A: Persistent and mobile substances registered under REACH at amounts greater than 1 tpa with currently no high-quality consensus conclusion that the criteria for T is met

Cas No.	EC No.	Full Name	Other REACH substances & precursors	UBA Prop. PMT/vPvM conclusion	EC Prop. PMT/vPvM conclusion	P Rationale	M Rationale	Emission Index	Detection (ref index)
125904-11-2	603-094-7	Benzene, dibromoethylBenzene, ethenyl-, ar-bromo derivs.		PM (vP-WoE, M & Not T)	Not PMT/vPvM (vP-WoE, Not M & Pot, T)	Potential P/vP++: est. t1/2 = 70d, weight-of-evidence (this study) based on all known QSARs and majority of biodegradation screen tests, e.g. EPA OPPTS 835.3110 (Ready Biodegradability);EPA OPPTS 835.3110 (Ready Biodegradability);EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test);EU Method C.4-E (Determination of the "Ready" Biodegradability - Closed Bottle Test);OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	UBA: M EC: Not M exp log Koc=3.8	high	WW: - SW: - DW: - GW: - RW: - BF: -
-	911-467-3	dipotassium trifluoroacetate trifluoromethanesulfinate		PM (vP-WoE, vM & Pot. T)	PM (vP-WoE, vM & Pot. T)	Potential P/vP++: short-chain PFAS, est. t1/2 = 633d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: vM EC: vM min Dow=0.4 (2a)	high	WW: - SW: - DW: - GW: - RW: - BF: -
-	938-115-1	Reaction mass of (1R)-1,2,2-trichloro-2-fluoroethyl trifluoromethyl ether and (1S)-1,2,2-trichloro-2-fluoroethyl trifluoromethyl ether		PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot, M/vM & Pot. T)	Potential P/vP++: short-chain PFAS, est. t1/2 = 1 236d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=2.5 (2a)	low	WW: - SW: - DW: - GW: - RW: - BF: -
-	-	Lufenuron-metabolite	(t4)410-690-9	PM (vP-WoE, M & Pot. T)	Potential PMT/vPvM (vP-WoE, Pot, M/vM & Pot. T)	Potential P/vP++: short-chain PFAS, est. t1/2 = 963d, weight-of-evidence (this study) based on all used QSARs and no biodeg. observed in majority of biodegradation screen tests for substance/main transformation products	UBA: M EC: Pot. M/vM min Dow=3.1 (2a	low	WW: - SW: - DW: - GW: - RW: - BF: -