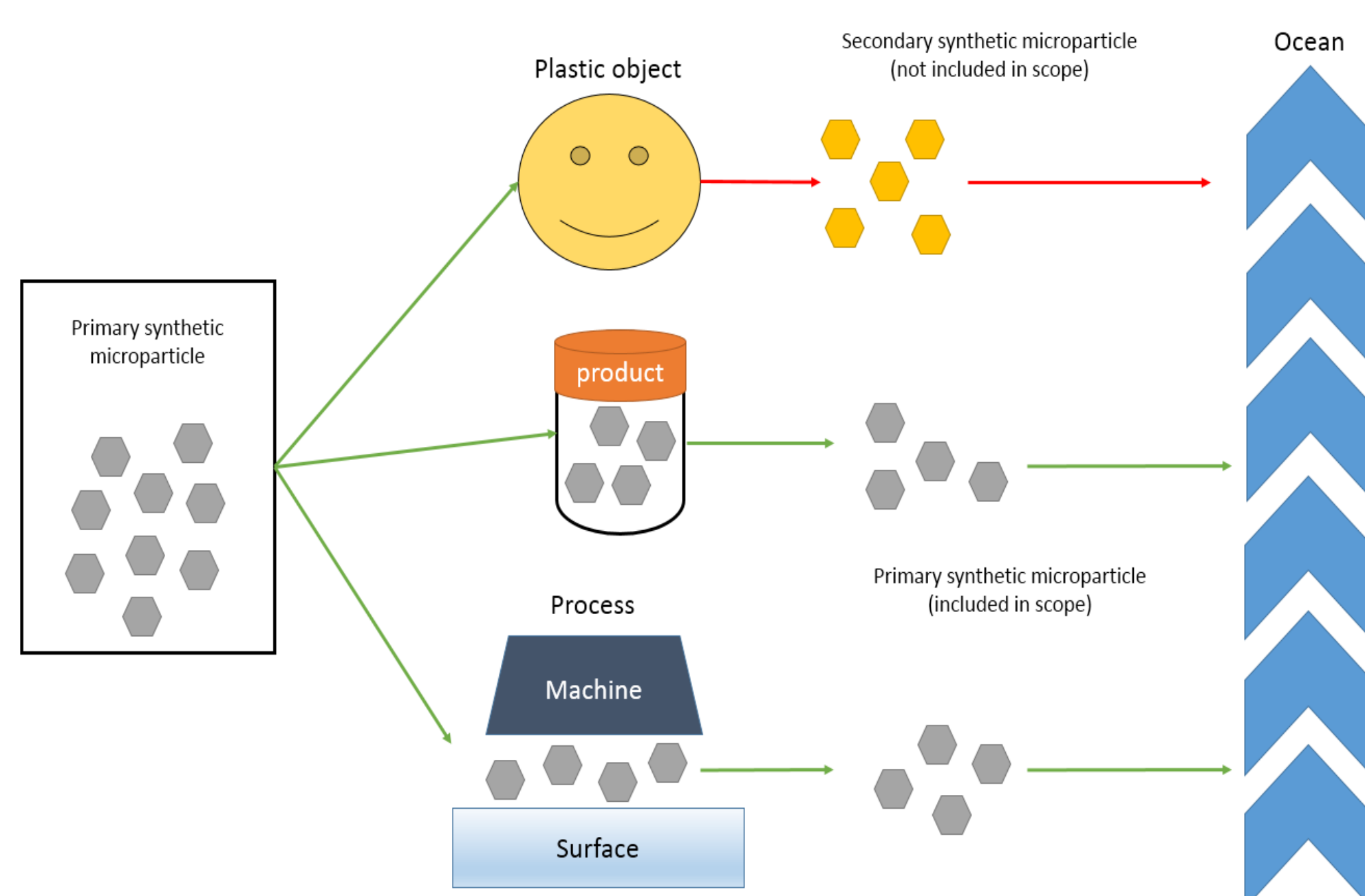


In order to promote the reduction of synthetic microplastics discharge into the environment, the Belgian federal government has ordered the design of a test to assess and prevent the emission of primary synthetic microplastics. The test has been developed by environmental consultancy agency TAUW and is intended for use by companies. The test can be easily adapted for other use: for voluntary screening of the market by branch organisations, for integration within standardisation framework or as a reporting tool within a mandatory context.

Primary synthetic microplastics

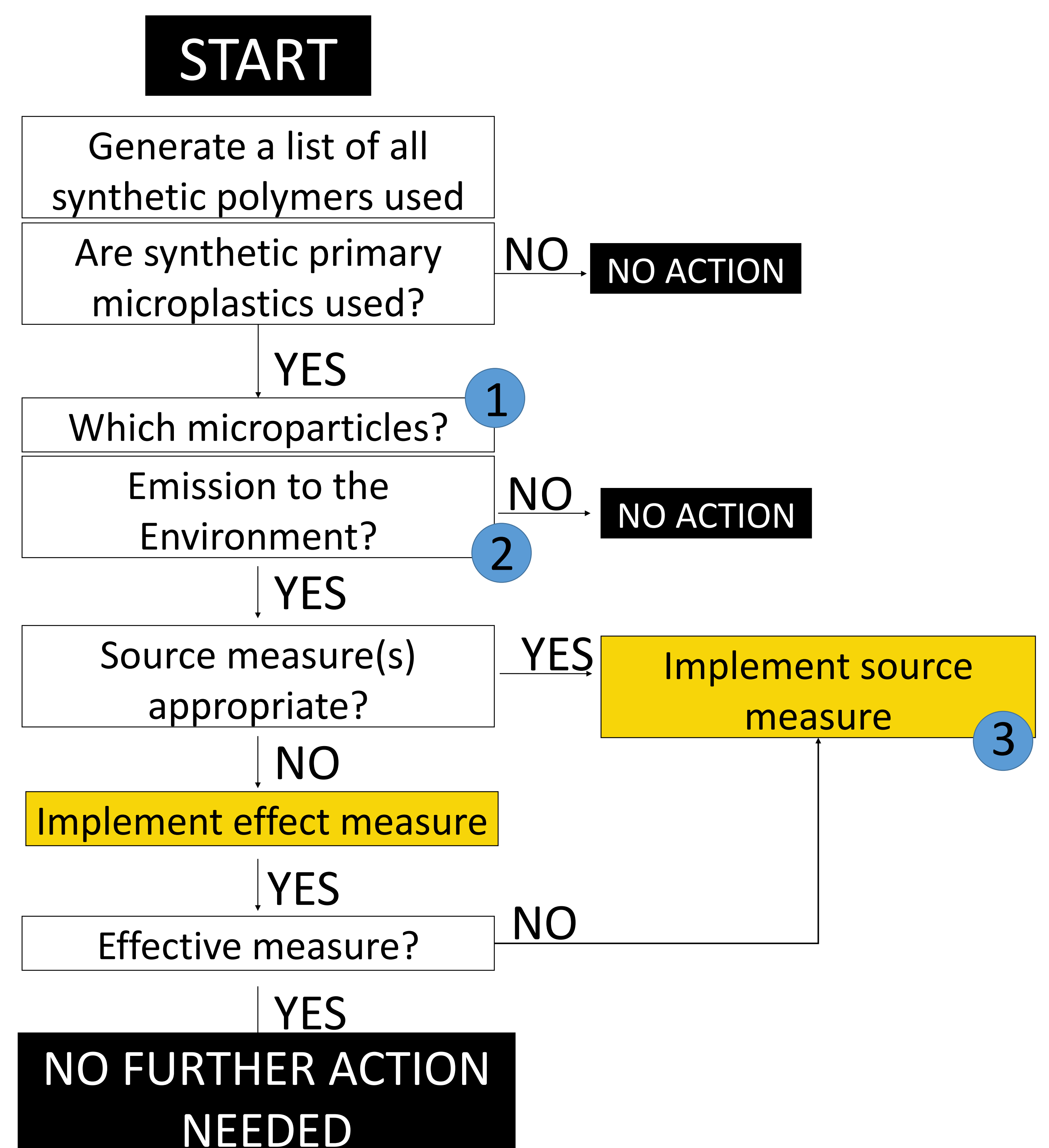


MANUAL INCLUDES:

- A definition of the scope
- A list of most commonly used synthetic polymers and their application
- A description of the emissions of several products in the user phase and the end of life phase
- A list of alternatives for synthetic microplastics
- Emission reducing measures or end of pipe techniques

FOR :

- **Producers** of plastic granulates, rubber granulates, cosmetics, paint, glue, varnish, food, medicine
- **Sectors** who use abrasive cleaning or blasting with plastic
- **Sectors** who use products that contain microplastics
- **Sectors** who use microplastics as tracers in the production process



ALSO INCLUDED:

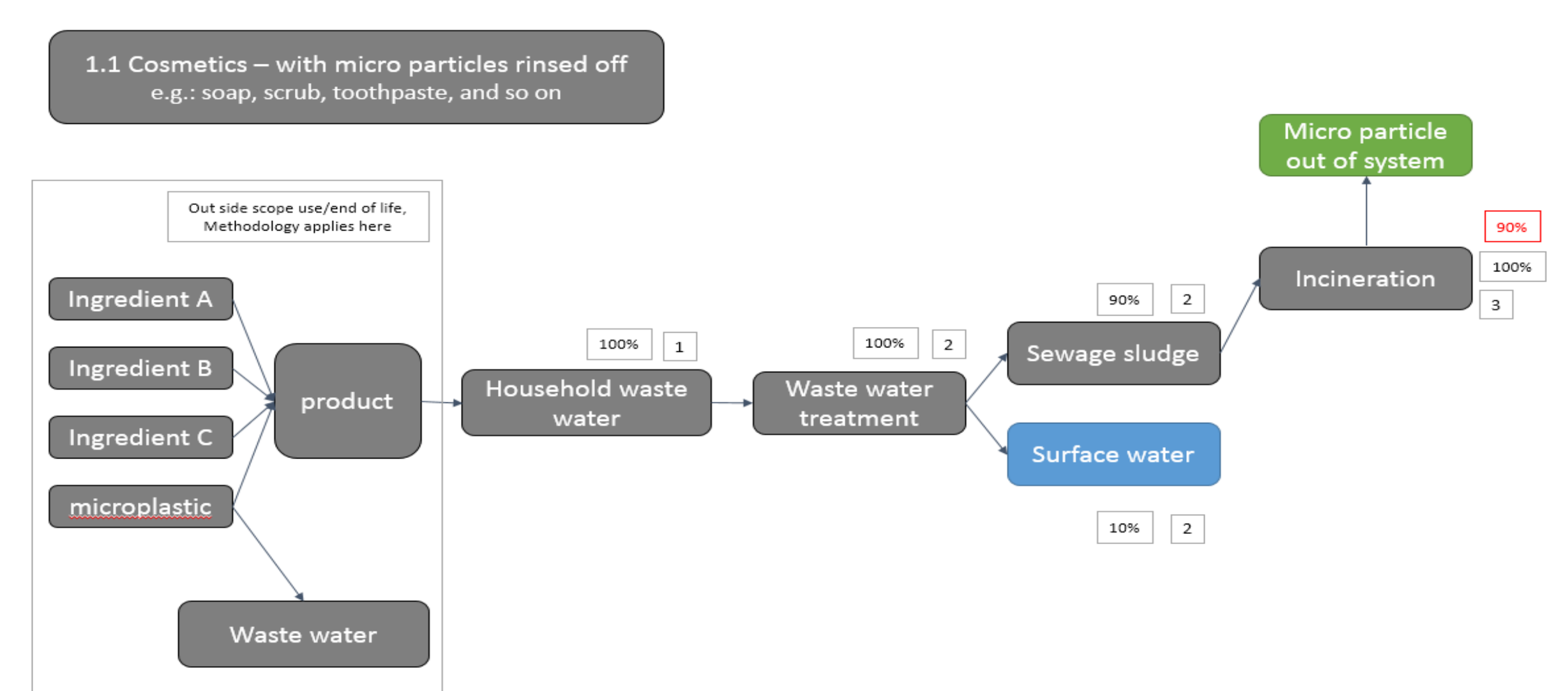
- 1** List of synthetic polymers that can occur as synthetic microplastics

Prefix	Repeating unit	Abb.	Application	Possible function
Poly	1,4-cis-Isoprene	-	Rubber	Natural rubber
Poly	2-hydroxyethyl methacrylate	HEMA	Paint, drugs	Drug delivery
Poly	2-hydroxypropyl methacrylate	HPMA	Paint, drugs	Drug delivery
Poly	Acrylate	PA	Cosmetics	Viscosity controlling

- 3** List of alternatives to synthetic microplastics

Alternatives	Application	Replaces...
Walnut shell	Industrial (abrasive blasting)	Polyethylene/Polypropylene
Cherry stone	Industrial (abrasive blasting)	Polyethylene/Polypropylene
Silica	Viscosity controlling	
Talc	lubricant, carrier, thickener, strengthening filler, smooth filler, adsorbent	
Clay	Paints (Reology modifier) filler	Polyurethanes, styrene, PVA

- 2** Emission of synthetic microplastics to the environment in use phase and end-of-life phase



Any questions or suggestions?
Please contact FPS of Health, Food Chain Safety and Environment, DG Environment:
marina.lukovnikova@environment.belgium.be,
Tel: +32 (0)2 524 95 94