

Treibhauspotentiale (Global Warming Potential, GWP) ausgewählter Verbindungen und deren Gemische gemäß Viertem Sachstandsbericht des IPCC bezogen auf einen Zeitraum von 100 Jahren

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| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung | GWP ¹ |
|--|--------------------------------------|--|------------------|
| Teil(chlor)fluorierte Kohlenwasserstoffe (HFKW und HFCKW) | | | |
| HFKW-23 | Trifluormethan | CHF ₃ | 14 800 |
| HFKW-32 | Difluormethan | CH ₂ F ₂ | 675 |
| HFKW-41 | Fluormethan | CH ₃ F | 92 |
| HFKW-125 | 1,1,1,2,2-Pentafluorethan | CF ₃ -CHF ₂ | 3 500 |
| HFKW-134 | 1,1,2,2-Tetrafluorethan | CHF ₂ -CHF ₂ | 1 100 |
| HFKW-134a | 1,1,1,2-Tetrafluorethan | CF ₃ -CH ₂ F | 1 430 |
| HFKW-143 | 1,1,2-Trifluorethan | CHF ₂ -CH ₂ F | 353 |
| HFKW-143a | 1,1,1-Trifluorethan | CF ₃ -CH ₃ | 4 470 |
| HFKW-152 | 1,2-Difluorethan | CH ₂ F-CH ₂ F | 53 |
| HFKW-152a | 1,1-Difluorethan | CHF ₂ -CH ₃ | 124 |
| HFKW-161 | Fluorethan | CH ₂ F-CH ₃ | 12 |
| HFKW-227ea | 1,1,1,2,3,3,3-Heptafluorpropan | CF ₃ -CHF-CF ₃ | 3 220 |
| HFKW-236cb | 1,1,1,2,2,3-Hexafluorpropan | CF ₃ -CF ₂ -CH ₂ F | 1 340 |
| HFKW-236ea | 1,1,1,2,3,3-Hexafluorpropan | CF ₃ -CHF-CHF ₂ | 1 370 |
| HFKW-236fa | 1,1,1,3,3,3-Hexafluorpropan | CF ₃ -CH ₂ -CF ₃ | 9 810 |
| HFKW-245ca | 1,1,2,2,3-Pentafluorpropan | CHF ₂ -CF ₂ -CH ₂ F | 693 |
| HFKW-245fa | 1,1,1,3,3-Pentafluorpropan | CF ₃ -CH ₂ -CHF ₂ | 1 030 |
| HFKW-365mfc | 1,1,1,3,3-Pentafluorbutan | CF ₃ -CH ₂ -CF ₂ -CH ₃ | 794 |
| HFKW-43-10mee | 1,1,1,2,2,3,4,5,5,5-Decafluoropentan | CF ₃ -CF ₂ -CHF-CHF-CF ₃ | 1 640 |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung | GWP ¹ |
|---|---|--|------------------|
| HFKW-1234yf | 2,3,3,3-Tetrafluorprop-1-en | CH ₂ =CF-CF ₃ | 4 ² |
| HFKW-1234ze (E) | trans-1,3,3,3-Tetrafluorprop-1-en | CHF=CH-CF ₃ (E) | 7 ² |
| HFKW-1336mzz (Z) | 1,1,1,4,4,4-Hexafluorbut-2-en | CF ₃ -CH=CH-CF ₃ (Z) | 9 ² |
| HFCKW-1233zd (E) | trans-1-Chlor-3,3,3-Trifluorprop-1-en | CHCl=CH-CF ₃ (E) | 4,5 ² |
| HFCKW-1233xf | 2-Chlor-3,3,3-Trifluorprop-1-en | CH ₂ =CCl-CF ₃ | 1 ³ |
| Perfluorierte Kohlenwasserstoffe (FKW) | | | |
| FKW-14 | Tetrafluormethan (Perfluormethan) | CF ₄ | 7 390 |
| FKW-116 | Hexafluorethan (Perfluorethan) | C ₂ F ₆ | 12 200 |
| FKW-216 | Hexafluorcyclopropan (Perfluorcyclopropan) | c-C ₃ F ₆ | 17 340 |
| FKW-218 | Oktafluorpropan (Perfluorpropan) | C ₃ F ₈ | 8 830 |
| FKW-c-318 | Octafluorcyclobutan (Perfluorcyclobutan) | c-C ₄ F ₈ | 10 300 |
| FKW-3-1-10 | Decafluorbutan (Perfluorbutan) | C ₄ F ₁₀ | 8 860 |
| FKW-4-1-12 | Dodecafluorpentan (Perfluorpentan) | C ₅ F ₁₂ | 9 160 |
| FKW-5-1-14 | Tetradecafluorhexan (Perfluorhexan) | C ₆ F ₁₄ | 9 300 |
| FKW-9-1-18 | Octadecafluordecalin (Perfluordecalin) | C ₁₀ F ₁₈ | 7 500 |
| Andere perfluorierte Verbindungen | | | |
| | Schwefelhexafluorid | SF ₆ | 22 800 |
| | Stickstofftrifluorid | NF ₃ | 17 200 |
| | Trifluormethylschwefelpentafluorid | SF ₅ CF ₃ | 17 700 |

¹ Wenn nicht anders angegeben, GWP₁₀₀ aus: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 996 pp.

² GWP₁₀₀ aus: WMO (World Meteorological Organization), Scientific Assessment of Ozone Depletion: 2010, Global Ozone Research and Monitoring Project–Report No. 52, Geneva, Switzerland, 2010.

³ Standardwert, GWP₁₀₀ noch nicht verfügbar.

Tabelle 2: Treibhauspotentiale (GWP₁₀₀) (chlor)fluorierter Ether (HFE, HCFE), fluorierter Alkohole und Perfluorpolyether (PFPE)

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung | GWP ¹ |
|--|-----------------------|--|------------------|
| (Chlor)fluorierte Ether (HFE und HCFE) | | | |
| HCFE-235ca2 (Enfluran) | | CHF ₂ -O-CF ₂ -CHCl | 583 ⁴ |
| HCFE-235da2 (Isofluran) | | CHF ₂ -O-CHCl-CF ₃ | 350 |
| HFE-125 | | CHF ₂ -O-CF ₃ | 14 900 |
| HFE-134 (HG-00) | | CHF ₂ -O-CHF ₂ | 6 320 |
| HFE-143a | | CH ₃ -O-CF ₃ | 756 |
| HFE-227ea | | CF ₃ -CHF-O-CF ₃ | 1 540 |
| HFE-236ca12 (HG-10) | | CHF ₂ -O-CF ₂ -O-CHF ₂ | 2 800 |
| HFE-236ea2 (Desfluran) | | CHF ₂ -O-CHF-CF ₃ | 989 |
| HFE-236fa | | CF ₃ -CH ₂ -O-CF ₃ | 487 |
| HFE-245cb2 | | CF ₃ -CF ₂ -O-CH ₃ | 708 |
| HFE-245fa1 | | CHF ₂ -CH ₂ -O-CF ₃ | 286 |
| HFE-245fa2 | | CHF ₂ -O-CH ₂ -CF ₃ | 659 |
| HFE-254cb2 | | CH ₃ -O-CF ₂ -CHF ₂ | 359 |
| HFE-263fb2 | | CF ₃ -CH ₂ -O-CH ₃ | 11 |
| HFE-329mcc2 | | CF ₃ -CF ₂ -O-CF ₂ -CHF ₂ | 919 |
| HFE-338mcf2 | | CF ₃ -CH ₂ -O-CF ₂ -CF ₃ | 552 |
| HFE-338mmz1 | | (CF ₃) ₂ CH-O-CHF ₂ | 380 |
| HFE-338pcc13 (HG-01) | | CHF ₂ -O-CF ₂ -CF ₂ -O-CHF ₂ | 1 500 |
| HFE-347mcc3 (HFE-7000) | | CH ₃ -O-CF ₂ -CF ₂ -CF ₃ | 575 |
| HFE-347mcf2 | | CHF ₂ -CH ₂ -O-CF ₂ -CF ₃ | 374 |
| HFE-347mmy1 | | (CF ₃) ₂ CF-O-CH ₃ | 343 |
| HFE-347mmz1 (Sevofluran) | | CH ₂ F-O-CH(CF ₃) ₂ | 216 ⁴ |
| HFE-347pcf2 | | CHF ₂ -CF ₂ -O-CH ₂ -CF ₃ | 580 |
| HFE-356mec3 | | CH ₃ -O-CF ₂ -CHF-CF ₃ | 101 |
| HFE-356mm1 | | (CF ₃) ₂ CH-O-CH ₃ | 27 |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung | GWP ¹ |
|--|---|--|------------------|
| HFE-356pcc3 | | CH ₃ -O-CF ₂ -CF ₂ -CHF ₂ | 110 |
| HFE-356pcf2 | | CHF ₂ -CH ₂ -O-CF ₂ -CHF ₂ | 265 |
| HFE-356pcf3 | | CHF ₂ -O-CH ₂ -CF ₂ -CHF ₂ | 502 |
| HFE-365mcf3 | | CF ₃ -CF ₂ -CH ₂ -O-CH ₃ | 11 |
| HFE-374pc2 | | CHF ₂ -CF ₂ -O-CH ₂ -CH ₃ | 557 |
| HFE-449sl (HFE-7100) | | C ₄ F ₉ -O-CH ₃ | 297 |
| HFE-569sf2 (HFE-7200) | | C ₄ F ₉ -O-C ₂ H ₅ | 59 |
| HFE-43- 10pccc124 (H-Galden 1040x) | | CHF ₂ -O-CF ₂ -O-C ₂ F ₄ -O-CHF ₂ | 1 870 |
| Fluorierte Alkohole | | | |
| | 2,2,3,3,3-Pentafluorpropan-1-ol | CF ₃ -CF ₂ -CH ₂ -OH | 42 |
| | Bis(trifluormethyl)methanol | (CF ₃) ₂ CH-OH | 195 |
| | Octafluortetramethylen- hydroxymethyl-Gruppe | -(CF ₂) ₄ CH(OH)- | 73 |
| Perfluorpolyether (PFPE) | | | |
| PFPME | Perfluorpolymethylisopropylether | CF ₃ (O-CF(CF ₃)CF ₂) _n -(O-CF ₂) _m - O-CF ₃ (n,m=1) | 10 300 |

¹ Wenn nicht anders angegeben, GWP₁₀₀ aus: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 996 pp.

⁴ GWP₁₀₀ aus: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp.

Tabelle 3: Treibhauspotentiale (GWP₁₀₀) von HFKW-Gemischen / Kältemittelblends

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung | GWP ^{1,5} |
|-----------------------------------|-----------------------|---|--------------------|
| HFKW-Gemische / Kältemittelblends | | | |
| R404A | | HFKW-125 (CHF ₂ -CF ₃): 44% HFKW-134a (CH ₂ F-CF ₃): 4% HFKW-143a (CH ₃ -CF ₃): 52% | 3 922 |
| R407A | | HFKW-32 (CH ₂ F ₂): 20% HFKW-125 (CHF ₂ -CF ₃): 40% HFKW-134a (CF ₃ -CH ₂ F): 40% | 2 107 |
| R407B | | HFKW-32 (CH ₂ F ₂): 10% HFKW-125 (CHF ₂ -CF ₃): 70% HFKW-134a (CF ₃ -CH ₂ F): 20% | 2 804 |
| R407C | | HFKW-32 (CH ₂ F ₂): 23% HFKW-125 (CHF ₂ -CF ₃): 25% HFKW-134a (CH ₂ F-CF ₃): 52% | 1 774 |
| R407D | | HFKW-32 (CH ₂ F ₂): 15% HFKW-125 (CHF ₂ -CF ₃): 15% HFKW-134a (CF ₃ -CH ₂ F): 70% | 1 627 |
| R407E | | HFKW-32 (CH ₂ F ₂): 25% HFKW-125 (CHF ₂ -CF ₃): 15% HFKW-134a (CF ₃ -CH ₂ F): 60% | 1 552 |
| R407F | | HFKW-32 (CH ₂ F ₂): 30% HFKW-125 (CHF ₂ -CF ₃): 30% HFKW-134a (CF ₃ -CH ₂ F): 40% | 1 825 |
| R407G | | HFKW-32 (CH ₂ F ₂): 2,5% HFKW-125 (CHF ₂ -CF ₃): 2,5% HFKW-134a (CF ₃ -CH ₂ F): 95% | 1 463 |
| R410A | | HFKW-32 (CH ₂ F ₂): 50% HFKW-125 (CHF ₂ -CF ₃): 50% | 2 088 |
| R410B | | HFKW-32 (CH ₂ F ₂): 45% HFKW-125 (CHF ₂ -CF ₃): 55 % | 2 229 |
| R413A | | HFKW-134a (CH ₂ F-CF ₃): 88% FKW-218 (CF ₃ -CF ₂ -CF ₃): 9% R600a (CH(CH ₃) ₃): 3% | 2 053 |
| R417A | | HFKW-125 (CHF ₂ -CF ₃): 46,6% HFKW-134a (CH ₂ F-CF ₃): 50% R600 (CH ₃ -CH ₂ -CH ₂ -CH ₃): 3,4% | 2 346 |
| R417B | | HFKW-125 (CHF ₂ -CF ₃): 79% HFKW-134a (CH ₂ F-CF ₃): 18,3% R600 (CH ₃ -CH ₂ -CH ₂ -CH ₃): 2,7% | 3 027 |
| R417C | | HFKW-125 (CHF ₂ -CF ₃): 19,5% HFKW-134a (CH ₂ F-CF ₃): 78,8% R600 (CH ₃ -CH ₂ -CH ₂ -CH ₃): 1,7% | 1 809 |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung | GWP ^{1,5} |
|--------------------------|-----------------------|---|--------------------|
| R419A | | HFKW-125 (CHF ₂ -CF ₃): 77% HFKW-134a (CF ₃ -CH ₂ F): 19% RE170 (CH ₃ -O-CH ₃): 4 % | 2 967 |
| R419B | | HFKW-125 (CHF ₂ -CF ₃): 48,5% HFKW-134a (CF ₃ -CH ₂ F): 48% RE170 (CH ₃ -O-CH ₃): 3,5% | 2 384 |
| R421A | | HFKW-125 (CHF ₂ -CF ₃): 58% HFKW-134a (CF ₃ -CH ₂ F): 42% | 2 631 |
| R421B | | HFKW-125 (CHF ₂ -CF ₃): 85% HFKW-134a (CF ₃ -CH ₂ F): 15% | 3 190 |
| R422A | | HFKW-125 (CHF ₂ -CF ₃): 85,1% HFKW-134a (CF ₃ -CH ₂ F): 11,5% R600a (CH(CH ₃) ₃): 3,4% | 3 143 |
| R422B | | HFKW-125 (CHF ₂ -CF ₃): 55% HFKW-134a (CF ₃ -CH ₂ F): 42% R600a (CH(CH ₃) ₃): 3% | 2 526 |
| R422C | | HFKW-125 (CHF ₂ -CF ₃): 82% HFKW-134a (CF ₃ -CH ₂ F): 15% R600a (CH(CH ₃) ₃): 3% | 3 085 |
| R422D | | HFKW-125 (CHF ₂ CF ₃): 65,1% HFKW-134a (CF ₃ -CH ₂ F): 31,5% R600a (CH(CH ₃) ₃): 3,4% | 2 729 |
| R422E | | HFKW-125 (CHF ₂ CF ₃): 58% HFKW-134a (CF ₃ -CH ₂ F): 39,3% R600a (CH(CH ₃) ₃): 2,7% | 2 592 |
| R423A | | HFKW-134a (CF ₃ -CH ₂ F): 52,5% HFKW-227ea (CF ₃ -CHF-CF ₃): 47,5% | 2 280 |
| R424A | | HFKW-125 (CHF ₂ -CF ₃): 50,5% HFKW-134a (CF ₃ -CH ₂ F): 47% R600 (CH ₃ -CH ₂ -CH ₂ -CH ₃): 1% R600a (CH(CH ₃) ₃): 0,9% R601a (CH ₃ CH(CH ₃)CH ₂ CH ₃): 0,6% | 2 440 |
| R425A | | HFKW-32 (CH ₂ F ₂): 18,5% HFKW-134a (CF ₃ -CH ₂ F): 69,5% HFKW-227ea (CF ₃ -CHF-CF ₃): 12% | 1 505 |
| R426A | | HFKW-125 (CHF ₂ -CF ₃): 5,1% HFKW-134a (CF ₃ -CH ₂ F): 93% R600 (CH ₃ -CH ₂ -CH ₂ -CH ₃): 1,3% R601a (CH ₃ CH(CH ₃)CH ₂ CH ₃): 0,6% | 1 508 |
| R427A | | HFKW-32 (CH ₂ F ₂): 15% HFKW-125 (CHF ₂ -CF ₃): 25% HFKW-134a (CF ₃ -CH ₂ F): 50% HFKW-143a (CH ₃ -CF ₃): 10% | 2 138 |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung | GWP ^{1,5} |
|--------------------------|-----------------------|--|--------------------|
| R428A | | HFKW-125 (CHF ₂ -CF ₃): 77,5% HFKW-143a (CH ₃ -CF ₃): 20% R290 (CH ₃ -CH ₂ -CH ₃): 0,6% R600a (CH(CH ₃) ₃): 1,9% | 3 607 |
| R429A | | HFKW-152a (CHF ₂ -CH ₃): 10% RE170 (CH ₃ -O-CH ₃): 60% R600a (CH(CH ₃) ₃): 30% | 14 |
| R430A | | HFKW-152a (CHF ₂ -CH ₃): 76% R600a (CH(CH ₃) ₃): 24% | 95 |
| R431A | | HFKW-152a (CHF ₂ -CH ₃): 29% R290 (CH ₃ -CH ₂ -CH ₃): 71% | 38 |
| R434A | | HFKW-125 (CHF ₂ -CF ₃): 63,2% HFKW-134a (CF ₃ -CH ₂ F): 16% HFKW-143a (CH ₃ -CF ₃): 18% R600a (CH(CH ₃) ₃): 2,8% | 3 245 |
| R435A | | HFKW-152a (CHF ₂ -CH ₃): 20% RE170 (CH ₃ -O-CH ₃): 80% | 26 |
| R437A | | HFKW-125 (CHF ₂ -CF ₃): 19,5% HFKW-134a (CF ₃ -CH ₂ F): 78,5% R600 (CH ₃ -CH ₂ -CH ₂ -CH ₃): 1,4% R601 (CH ₃ -CH ₂ -CH ₂ -CH ₂ -CH ₃) : 0,6% | 1 805 |
| R438A | | HFKW-32 (CH ₂ F ₂): 8,5% HFKW-125 (CHF ₂ -CF ₃): 45% HFKW-134a (CF ₃ -CH ₂ F): 44,2% R600 (CH ₃ -CH ₂ -CH ₂ -CH ₃): 1,7% R601a (CH ₃ CH(CH ₃)CH ₂ CH ₃): 0,6% | 2 265 |
| R439A | | HFKW-32 (CH ₂ F ₂): 50% HFKW-125 (CHF ₂ -CF ₃): 47% R600a (CH(CH ₃) ₃): 3% | 1 983 |
| R440A | | HFKW-134a (CF ₃ -CH ₂ F): 1,6% HFKW-152a (CHF ₂ -CH ₃): 97,8% R290 (CH ₃ -CH ₂ -CH ₃): 0,6% | 144 |
| R442A | | HFKW-32 (CH ₂ F ₂): 31% HFKW-125 (CHF ₂ -CF ₃): 31% HFKW-134a (CF ₃ -CH ₂ F): 30% HFKW-152a (CHF ₂ -CH ₃): 3% HFKW-227ea (CF ₃ -CHF-CF ₃): 5% | 1 888 |
| R444A | | HFKW-32 (CH ₂ F ₂): 12% HFKW-152a (CHF ₂ -CH ₃): 5% HFKW-1234ze (CHF=CH-CF ₃): 83% | 93 |
| R444B | | HFKW-32 (CH ₂ F ₂): 41,5% HFKW-152a (CHF ₂ -CH ₃): 10% HFKW-1234ze (CHF=CH-CF ₃): 48,5% | 296 |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung | GWP ^{1,5} |
|--------------------------|-----------------------|---|--------------------|
| R445A | | HFKW-134a (CF ₃ -CH ₂ F): 9% HFKW-1234ze (CHF=CH-CF ₃): 85% R744 (CO ₂): 6% | 135 |
| R446A | | HFKW-32 (CH ₂ F ₂): 68% HFKW-1234ze (CHF=CH-CF ₃): 29% R600 (CH ₃ -CH ₂ -CH ₂ -CH ₃): 3% | 461 |
| R447A | | HFKW-32 (CH ₂ F ₂): 68% HFKW-125 (CHF ₂ -CF ₃): 3,5% HFKW-1234ze (CHF=CH-CF ₃): 28,5% | 583 |
| R448A | | HFKW-32 (CH ₂ F ₂): 26% HFKW-125 (CHF ₂ -CF ₃): 26% HFKW-134a (CF ₃ -CH ₂ F): 21% HFKW-1234yf (CH ₂ =CF-CF ₃): 20% HFKW-1234ze (CHF=CH-CF ₃): 7% | 1 387 |
| R449A | | HFKW-32 (CH ₂ F ₂): 24,3% HFKW-125 (CHF ₂ -CF ₃): 24,7% HFKW-134a (CF ₃ -CH ₂ F): 25,7% HFKW-1234yf (CH ₂ =CF-CF ₃): 25,3% | 1 397 |
| R449B | | HFKW-32 (CH ₂ F ₂): 25,2% HFKW-125 (CHF ₂ -CF ₃): 24,3% HFKW-134a (CF ₃ -CH ₂ F): 27,3% HFKW-1234yf (CH ₂ =CF-CF ₃): 23,2% | 1 412 |
| R449C | | HFKW-32 (CH ₂ F ₂): 20% HFKW-125 (CHF ₂ -CF ₃): 20% HFKW-134a (CF ₃ -CH ₂ F): 29% HFKW-1234yf (CH ₂ =CF-CF ₃): 31% | 1 251 |
| R450A | | HFKW-134a (CF ₃ -CH ₂ F): 42% HFKW-1234ze (CHF=CH-CF ₃): 58% | 605 |
| R451A | | HFKW-134a (CF ₃ -CH ₂ F): 10,2% HFKW-1234yf (CH ₂ =CF-CF ₃): 89,8% | 149 |
| R451B | | HFKW-134a (CF ₃ -CH ₂ F): 11,2% HFKW-1234yf (CH ₂ =CF-CF ₃): 88,8% | 164 |
| R452A | | HFKW-32 (CH ₂ F ₂): 11% HFKW-125 (CHF ₂ -CF ₃): 59% HFKW-1234yf (CH ₂ =CF-CF ₃): 30% | 2 140 |
| R452B | | HFKW-32 (CH ₂ F ₂): 67% HFKW-125 (CHF ₂ -CF ₃): 7% HFKW-1234yf (CH ₂ =CF-CF ₃): 26% | 698 |
| R452C | | HFKW-32 (CH ₂ F ₂): 12,5% HFKW-125 (CHF ₂ -CF ₃): 61% HFKW-1234yf (CH ₂ =CF-CF ₃): 26,5% | 2 220 |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung | GWP ^{1,5} |
|--------------------------|-----------------------|---|--------------------|
| R453A | | HFKW-32 (CH ₂ F ₂): 20% HFKW-125 (CHF ₂ -CF ₃): 20% HFKW-134a (CF ₃ -CH ₂ F): 53,8% HFKW-227ea (CF ₃ -CHF-CF ₃): 5% R600 (CH ₃ -CH ₂ -CH ₂ -CH ₃): 0,6% R601a (CH ₃ CH(CH ₃)CH ₂ CH ₃): 0,6% | 4 824 |
| R454A | | HFKW-32 (CH ₂ F ₂): 35% HFKW-1234yf (CH ₂ =CF-CF ₃): 65% | 239 |
| R454B | | HFKW-32 (CH ₂ F ₂): 68,9% HFKW-1234yf (CH ₂ =CF-CF ₃): 31,1% | 466 |
| R454C | | HFKW-32 (CH ₂ F ₂): 21,5% HFKW-1234yf (CH ₂ =CF-CF ₃): 78,5% | 148 |
| R455A | | HFKW-32 (CH ₂ F ₂): 21,5% HFKW-1234yf (CH ₂ =CF-CF ₃): 75,5% R744 (CO ₂): 3% | 148 |
| R456A | | HFKW-32 (CH ₂ F ₂): 6% HFKW-134a (CF ₃ -CH ₂ F): 45% HFKW-1234ze (CHF=CH-CF ₃): 49% | 687 |
| R457A | | HFKW-32 (CH ₂ F ₂): 18% HFKW-152a (CHF ₂ -CH ₃): 12% HFKW-1234yf (CH ₂ =CF-CF ₃): 70% | 139 |
| R507A | | HFKW-125 (CHF ₂ -CF ₃): 50% HFKW-143a (CH ₃ -CF ₃): 50% | 3 985 |
| R508A | | HFKW-23 (CHF ₃): 39% FKW-116 (C ₂ F ₆): 61% | 13 214 |
| R508B | | HFKW-23 (CHF ₃): 46% FKW-116 (C ₂ F ₆): 54% | 13 396 |
| R511A | | HFKW-152a (CHF ₂ -CH ₃): 5% R290 (CH ₃ -CH ₂ -CH ₃): 95% | 9 |
| R512A | | HFKW-134a (CF ₃ -CH ₂ F): 5% HFKW-152a (CHF ₂ -CH ₃): 95% | 189 |
| R513A | | HFKW-134a (CF ₃ -CH ₂ F): 44% HFKW-1234yf (CH ₂ =CF-CF ₃): 56% | 631 |
| R513B | | HFKW-134a (CF ₃ -CH ₂ F): 41,5% HFKW-1234yf (CH ₂ =CF-CF ₃): 58,5% | 596 |
| R514A | | HFKW-1336mzz (CF ₃ -CH=CH-CF ₃): 74,7% R1130 (CHCl=CHCl): 25,3% | 7 |
| R515A | | HFKW-227ea (CF ₃ -CHF-CF ₃): 12% HFKW-1234ze (CHF=CH-CF ₃): 88% | 393 |
| Isceon® M089 | | HFKW-125 (CF ₃ -CHF ₂): 86% FKW-218 (CF ₃ -CF ₂ -CF ₃): 9% R290 (CH ₃ -CH ₂ -CH ₃): 5% | 3 805 |

Tabelle 4: Treibhauspotentiale (GWP₁₀₀) halogenfreier Stoffe

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung | GWP ¹ |
|----------------------------|----------------------------------|---|------------------|
| Halogenfreie Stoffe | | | |
| | Methan | CH ₄ | 25 |
| R170 | Ethan | CH ₃ -CH ₃ | 6 |
| R290 | Propan | CH ₃ -CH ₂ -CH ₃ | 3 |
| R600 | n-Butan | CH ₃ -CH ₂ -CH ₂ -CH ₃ | 4 |
| R600a | i-Butan (Isobutan) | (CH ₃) ₂ -CH-CH ₃ | 3 |
| R601 | n-Pentan | CH ₃ -CH ₂ -CH ₂ -CH ₂ -CH ₃ | 5 ⁵ |
| R601a | i-Pentan (Isopentan) | (CH ₃) ₂ -CH-CH ₂ -CH ₃ | 5 ⁵ |
| RE170 | Dimethylether (DME) | CH ₃ -O-CH ₃ | 1 |
| R610 | Diethylether | CH ₃ -CH ₂ -O-CH ₂ -CH ₃ | 4 |
| R611 | Methylformiat | HCOOCH ₃ | 25 |
| R702 | Wasserstoff | H ₂ | 6 |
| R717 | Ammoniak | NH ₃ | 0 |
| R718 | Wasser | H ₂ O | 0 |
| R723 | Dimethylether/Ammoniak - Gemisch | R717 (NH ₃): 60% RE170 (CH ₃ -O-CH ₃): 40% | 1 |
| R744 | Kohlendioxid | CO ₂ | 1 |
| R1150 | Ethen (Ethylen) | CH ₂ =CH ₂ | 4 |
| R1270 | Propen (Propylen) | CH ₂ =CH-CH ₃ | 2 |

¹ Wenn nicht anders angegeben, GWP₁₀₀ aus: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 996 pp.

⁵ Standardwert aufgrund des GWP₁₀₀ anderer Kohlenwasserstoffe.

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