

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

|            |  |    |
|------------|--|----|
| Tabelle 1: | Treibhauspotentiale (GWP <sub>100</sub> ) teil(chlor)fluorierter und perfluorierter Kohlenwasserstoffe (HFKW, HFCKW und FKW) sowie anderer perfluorierter Verbindungen ..... | 1  |
| Tabelle 2: | Treibhauspotentiale (GWP <sub>100</sub> ) (chlor)fluorierter Ether (HFE, HCFE), fluorierter Alkohole und Perfluorpolyether (PFPE) .....                                      | 4  |
| Tabelle 3: | Treibhauspotentiale (GWP <sub>100</sub> ) von HFKW-Gemischen / Kältemittelblends .....   | 6  |
| Tabelle 4: | Treibhauspotentiale (GWP <sub>100</sub> ) halogenfreier Stoffe .....   | 13 |

Tabelle 1: Treibhauspotentiale (GWP<sub>100</sub>) teil(chlor)fluorierter und perfluorierter Kohlenwasserstoffe (HFKW, HFCKW und FKW) sowie anderer perfluorierter Verbindungen

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

| Industrielle Bezeichnung               | Chemische Bezeichnung                      | Chemische Formel / Zusammensetzung                                 | GWP <sup>1</sup> |
|--|--|--|------------------|
| HFKW-365mfc                            | 1,1,1,3,3-Pentafluorbutan                  | CF <sub>3</sub> -CH <sub>2</sub> -CF <sub>2</sub> -CH <sub>3</sub> | 794              |
| HFKW-43-10mee                          | 1,1,1,2,2,3,4,5,5,5-Decafluorpentan        | CF <sub>3</sub> -CF <sub>2</sub> -CHF-CHF-CF <sub>3</sub>          | 1 640            |
| HFKW-1234yf                            | 2,3,3,3-Tetrafluorprop-1-en                | CH <sub>2</sub> =CF-CF <sub>3</sub>                                | 4 <sup>2</sup>   |
| HFKW-1234ze (E)                        | trans-1,3,3,3-Tetrafluorprop-1-en          | CHF=CH-CF <sub>3</sub> (E)   | 7 <sup>2</sup>   |
| HFKW-1336mzz (Z)                       | cis-1,1,1,4,4,4-Hexafluorbut-2-en          | CF <sub>3</sub> -CH=CH-CF <sub>3</sub> (Z)                         | 9 <sup>2</sup>   |
| HFCKW-1224yd (Z)                       | cis-1-Chlor-2,3,3,3-Tetrafluorprop-1-en    | CHCl=CF-CF <sub>3</sub> (Z)  | 1 <sup>3</sup>   |
| HFCKW-1233xf                           | 2-Chlor-3,3,3-Trifluorprop-1-en            | CH <sub>2</sub> =CCl-CF <sub>3</sub>                               | 1 <sup>3</sup>   |
| HFCKW-1233zd (E)                       | trans-1-Chlor-3,3,3-Trifluorprop-1-en      | CHCl=CH-CF <sub>3</sub> (E)  | 4,5 <sup>2</sup> |
| Perfluorierte Kohlenwasserstoffe (FKW) |  |  |                  |
| FKW-14                                 | Tetrafluormethan (Perfluormethan)          | CF <sub>4</sub>  | 7 390            |
| FKW-116                                | Hexafluorethan (Perfluorethan)             | C <sub>2</sub> F <sub>6</sub>                                      | 12 200           |
| FKW-216                                | Hexafluorcyclopropan (Perfluorcyclopropan) | c-C <sub>3</sub> F <sub>6</sub>                                    | 17 340           |
| FKW-218                                | Oktafluorpropan (Perfluorpropan)           | C <sub>3</sub> F <sub>8</sub>                                      | 8 830            |
| FKW-c-318                              | Octafluorcyclobutan (Perfluorcyclobutan)   | c-C <sub>4</sub> F <sub>8</sub>                                    | 10 300           |
| FKW-3-1-10                             | Decafluorbutan (Perfluorbutan)             | C <sub>4</sub> F <sub>10</sub>                                     | 8 860            |
| FKW-4-1-12                             | Dodecafluorpentan (Perfluorpentan)         | C <sub>5</sub> F <sub>12</sub>                                     | 9 160            |
| FKW-5-1-14                             | Tetradecafluorhexan (Perfluorhexan)        | C <sub>6</sub> F <sub>14</sub>                                     | 9 300            |
| FKW-9-1-18                             | Octadecafluordecalin (Perfluordecalin)     | C <sub>10</sub> F <sub>18</sub>                                    | 7 500            |
| Andere perfluorierte Verbindungen      |  |  |                  |
|  | Schwefelhexafluorid                        | SF <sub>6</sub>  | 22 800           |
|  | Stickstofftrifluorid                       | NF <sub>3</sub>  | 17 200           |
|  | Trifluormethylschwefelpentafluorid         | SF <sub>5</sub> CF <sub>3</sub>                                    | 17 700           |
|  | Trifluoriodmethan                          | CF <sub>3</sub> I  | 0,4              |

<sup>1</sup> Wenn nicht anders angegeben, GWP<sub>100</sub> 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.

<sup>2</sup> GWP<sub>100</sub> aus: WMO (World Meteorological Organization), Scientific Assessment of Ozone Depletion: 2010, Global Ozone Research and Monitoring Project–Report No. 52, Geneva, Switzerland, 2010.

<sup>3</sup> Standardwert, GWP<sub>100</sub> noch nicht verfügbar.

Tabelle 2: Treibhauspotentiale (GWP<sub>100</sub>) (chlor)fluorierter Ether (HFE, HCFE), fluorierter Alkohole und Perfluorpolyether (PFPE)

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

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

<sup>1</sup> Wenn nicht anders angegeben, GWP<sub>100</sub> 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.

<sup>4</sup> GWP<sub>100</sub> 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 (GWP<sub>100</sub>) von HFKW-Gemischen / Kältemittelblends

| Industrielle Bezeichnung          | Chemische Bezeichnung | Chemische Formel / Zusammensetzung  | GWP <sup>1,5</sup> |
|-----------------------------------|-----------------------|---|--------------------|
| HFKW-Gemische / Kältemittelblends |                       |   |                    |
| R404A                             |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 44%<br>HFKW-134a (CH <sub>2</sub> F-CF <sub>3</sub> ): 4%<br>HFKW-143a (CH <sub>3</sub> -CF <sub>3</sub> ): 52%                                  | 3 922              |
| R407A                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 20%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 40%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 40%                                     | 2 107              |
| R407B                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 10%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 70%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 20%                                     | 2 804              |
| R407C                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 23%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 25%<br>HFKW-134a (CH <sub>2</sub> F-CF <sub>3</sub> ): 52%                                     | 1 774              |
| R407D                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 15%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 15%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 70%                                     | 1 627              |
| R407E                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 25%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 15%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 60%                                     | 1 552              |
| R407F                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 30%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 30%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 40%                                     | 1 825              |
| R407G                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 2,5%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 2,5%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 95%                                   | 1 463              |
| R407H                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 32,5%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 15%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 52,5%                                 | 1 495              |
| R407I                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 19,5%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 8,5%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 72%                                  | 1 459              |
| R410A                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 50%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 50%  | 2 088              |
| R410B                             |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 45%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 55%  | 2 229              |
| R413A                             |                       | HFKW-134a (CH <sub>2</sub> F-CF <sub>3</sub> ): 88%<br>FKW-218 (CF <sub>3</sub> -CF <sub>2</sub> -CF <sub>3</sub> ): 9%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 3%                       | 2 053              |
| R417A                             |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 46,6%<br>HFKW-134a (CH <sub>2</sub> F-CF <sub>3</sub> ): 50%<br>R600 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 3,4% | 2 346              |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung  | GWP <sup>1,5</sup> |
|--------------------------|-----------------------|---|--------------------|
| R417B                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 79%<br>HFKW-134a (CH <sub>2</sub> F-CF <sub>3</sub> ): 18,3%<br>R600 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 2,7%   | 3 027              |
| R417C                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 19,5%<br>HFKW-134a (CH <sub>2</sub> F-CF <sub>3</sub> ): 78,8%<br>R600 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 1,7%   | 1 809              |
| R419A                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 77%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 19%<br>RE170 (CH <sub>3</sub> -O-CH <sub>3</sub> ): 4%  | 2 967              |
| R419B                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 48,5%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 48%<br>RE170 (CH <sub>3</sub> -O-CH <sub>3</sub> ): 3,5%  | 2 384              |
| R421A                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 58%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 42%   | 2 631              |
| R421B                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 85%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 15%   | 3 190              |
| R422A                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 85,1%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 11,5%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 3,4%   | 3 143              |
| R422B                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 55%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 42%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 3%   | 2 526              |
| R422C                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 82%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 15%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 3%   | 3 085              |
| R422D                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 65,1%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 31,5%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 3,4%   | 2 729              |
| R422E                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 58%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 39,3%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 2,7%   | 2 592              |
| R423A                    |                       | HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 52,5%<br>HFKW-227ea (CF <sub>3</sub> -CHF-CF <sub>3</sub> ): 47,5%  | 2 280              |
| R424A                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 50,5%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 47%<br>R600 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 1%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 0,9%<br>R601a (CH <sub>3</sub> CH(CH <sub>3</sub> )CH <sub>2</sub> CH <sub>3</sub> ): 0,6% | 2 440              |
| R425A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 18,5%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 69,5%<br>HFKW-227ea (CF <sub>3</sub> -CHF-CF <sub>3</sub> ): 12%  | 1 505              |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung   | GWP 1,5 |
|--------------------------|-----------------------|--|---------|
| R426A                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 5,1%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 93%<br>R600 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 1,3%<br>R601a (CH <sub>3</sub> CH(CH <sub>3</sub> )CH <sub>2</sub> CH <sub>3</sub> ): 0,6%   | 1 508   |
| R427A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 15%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 25%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 50%<br>HFKW-143a (CH <sub>3</sub> -CF <sub>3</sub> ): 10%  | 2 138   |
| R428A                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 77,5%<br>HFKW-143a (CH <sub>3</sub> -CF <sub>3</sub> ): 20%<br>R290 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 0,6%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 1,9%  | 3 607   |
| R429A                    |                       | HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 10%<br>RE170 (CH <sub>3</sub> -O-CH <sub>3</sub> ): 60%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 30%   | 14      |
| R430A                    |                       | HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 76%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 24%   | 95      |
| R431A                    |                       | HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 29%<br>R290 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 71%  | 38      |
| R434A                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 63,2%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 16%<br>HFKW-143a (CH <sub>3</sub> -CF <sub>3</sub> ): 18%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 2,8%  | 3 245   |
| R435A                    |                       | HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 20%<br>RE170 (CH <sub>3</sub> -O-CH <sub>3</sub> ): 80%  | 26      |
| R437A                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 19,5%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 78,5%<br>R600 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 1,4%<br>R601 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 0,6%                                   | 1 805   |
| R438A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 8,5%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 45%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 44,2%<br>R600 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 1,7%<br>R601a (CH <sub>3</sub> CH(CH <sub>3</sub> )CH <sub>2</sub> CH <sub>3</sub> ): 0,6% | 2 265   |
| R439A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 50%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 47%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 3%   | 1 983   |
| R440A                    |                       | HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 1,6%<br>HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 97,8%<br>R290 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 0,6%   | 144     |



| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung  | GWP <sup>1,5</sup> |
|--------------------------|-----------------------|---|--------------------|
| R442A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 31%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 31%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 30%<br>HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 3%<br>HFKW-227ea (CF <sub>3</sub> -CHF-CF <sub>3</sub> ): 5% | 1 888              |
| R444A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 12%<br>HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 5%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 83%  | 93                 |
| R444B                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 41,5%<br>HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 10%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 48,5%   | 296                |
| R445A                    |                       | HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 9%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 85%<br>R744 (CO <sub>2</sub> ): 6%   | 135                |
| R446A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 68%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 29%<br>R600 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 3%  | 461                |
| R447A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 68%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 3,5%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 28,5%   | 583                |
| R447B                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 68%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 8%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 24%   | 741                |
| R448A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 26%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 26%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 21%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 20%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 7%         | 1 387              |
| R449A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 24,3%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 24,7%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 25,7%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 25,3%  | 1 397              |
| R449B                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 25,2%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 24,3%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 27,3%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 23,2%  | 1 412              |
| R449C                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 20%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 20%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 29%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 31%  | 1 251              |
| R450A                    |                       | HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 42%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 58%   | 605                |
| R451A                    |                       | HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 10,2%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 89,8%  | 149                |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung  | GWP <sup>1,5</sup> |
|--------------------------|-----------------------|---|--------------------|
| R451B                    |                       | HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 11,2%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 88,8%  | 164                |
| R452A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 11%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 59%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 30%   | 2 140              |
| R452B                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 67%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 7%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 26%  | 698                |
| R452C                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 12,5%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 61%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 26,5%   | 2 220              |
| R453A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 20%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 20%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 53,8%<br>HFKW-227ea (CF <sub>3</sub> -CHF-CF <sub>3</sub> ): 5%<br>R600 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 0,6%<br>R601a (CH <sub>3</sub> CH(CH <sub>3</sub> )CH <sub>2</sub> CH <sub>3</sub> ): 0,6% | 1 765              |
| R454A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 35%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 65%   | 239                |
| R454B                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 68,9%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 31,1%   | 466                |
| R454C                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 21,5%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 78,5%   | 148                |
| R455A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 21,5%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 75,5%<br>R744 (CO <sub>2</sub> ): 3%  | 148                |
| R456A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 6%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 45%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 49%  | 687                |
| R457A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 18%<br>HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 12%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 70%  | 139                |
| R458A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 20,5%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 4%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 61,4%<br>HFKW-227ea (CF <sub>3</sub> -CHF-CF <sub>3</sub> ): 13,5%<br>HFKW-236fa (CF <sub>3</sub> -CH <sub>2</sub> -CF <sub>3</sub> ): 0,6%  | 1 650              |
| R459A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 68%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 26%<br>HFKW-1234ze (CF <sub>3</sub> -CH=CHF): 6%  | 460                |
| R459B                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 21%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 69%<br>HFKW-1234ze (CF <sub>3</sub> -CH=CHF): 10%   | 145                |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung  | GWP <sup>1,5</sup> |
|--------------------------|-----------------------|---|--------------------|
| R460A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 12%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 52%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 14%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 22%   | 2 103              |
| R460B                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 28%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 25%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 20%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 27%   | 1 352              |
| R460C                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 2,5%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 2,5%<br>HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 46%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 49%   | 766                |
| R461A                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 55%<br>HFKW-134a (CH <sub>2</sub> F-CF <sub>3</sub> ): 32%<br>HFKW-143a (CH <sub>3</sub> -CF <sub>3</sub> ): 5%<br>HFKW-227ea (CF <sub>3</sub> -CHF-CF <sub>3</sub> ): 5%<br>R600a (CH(CH <sub>3</sub> ) <sub>3</sub> ): 3%                        | 2 767              |
| R462A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 9%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 42%<br>HFKW-134a (CH <sub>2</sub> F-CF <sub>3</sub> ): 44%<br>HFKW-143a (CH <sub>3</sub> -CF <sub>3</sub> ): 2%<br>R600 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 3% | 2 249              |
| R463A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 36%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 30%<br>HFKW-134a (CH <sub>2</sub> F-CF <sub>3</sub> ): 14%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 14%<br>R744 (CO <sub>2</sub> ): 6%   | 1 494              |
| R464A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 27%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 27%<br>HFKW-227ea (CF <sub>3</sub> -CHF-CF <sub>3</sub> ): 6%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 40%  | 1 323              |
| R465A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 21%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 71,1%<br>R290 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 7,9%  | 145                |
| R466A                    |                       | HFKW-32 (CH <sub>2</sub> F <sub>2</sub> ): 49%<br>HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 11,5%<br>CF <sub>3</sub> I: 39,5%  | 733                |
| R507A                    |                       | HFKW-125 (CHF <sub>2</sub> -CF <sub>3</sub> ): 50%<br>HFKW-143a (CH <sub>3</sub> -CF <sub>3</sub> ): 50%  | 3 985              |
| R508A                    |                       | HFKW-23 (CHF <sub>3</sub> ): 39%<br>FKW-116 (C <sub>2</sub> F <sub>6</sub> ): 61%   | 13 214             |
| R508B                    |                       | HFKW-23 (CHF <sub>3</sub> ): 46%<br>FKW-116 (C <sub>2</sub> F <sub>6</sub> ): 54%   | 13 396             |

| Industrielle Bezeichnung | Chemische Bezeichnung | Chemische Formel / Zusammensetzung  | GWP <sup>1,5</sup> |
|--------------------------|-----------------------|---|--------------------|
| R511A                    |                       | HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 5%<br>R290 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 95%  | 9                  |
| R512A                    |                       | HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 5%<br>HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 95%   | 189                |
| R513A                    |                       | HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 44%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 56%  | 631                |
| R513B                    |                       | HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 41,5%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 58,5%  | 596                |
| R514A                    |                       | HFKW-1336mzz (CF <sub>3</sub> -CH=CH-CF <sub>3</sub> ):<br>74,7%<br>R1130 (CHCl=CHCl): 25,3%  | 7                  |
| R515A                    |                       | HFKW-227ea (CF <sub>3</sub> -CHF-CF <sub>3</sub> ): 12%<br>HFKW-1234ze (CHF=CH-CF <sub>3</sub> ): 88%   | 393                |
| R516A                    |                       | HFKW-134a (CF <sub>3</sub> -CH <sub>2</sub> F): 8,5%<br>HFKW-152a (CHF <sub>2</sub> -CH <sub>3</sub> ): 14%<br>HFKW-1234yf (CH <sub>2</sub> =CF-CF <sub>3</sub> ): 77,5%                | 142                |
| Isceon® MO89             |                       | HFKW-125 (CF <sub>3</sub> -CHF <sub>2</sub> ): 86%<br>FKW-218 (CF <sub>3</sub> -CF <sub>2</sub> -CF <sub>3</sub> ): 9%<br>R290 (CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>3</sub> ): 5% | 3 805              |

Tabelle 4: Treibhauspotentiale (GWP<sub>100</sub>) halogenfreier Stoffe

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

<sup>1</sup> Wenn nicht anders angegeben, GWP<sub>100</sub> 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.

<sup>5</sup> Standardwert aufgrund des GWP<sub>100</sub> anderer Kohlenwasserstoffe.

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