IPCC Global Warming Potential Values

Version No.	Date	Description of amendment
2.0	August 7, 2024	Updated with AR6 values

This document provides 100-year time horizon global warming potential (GWP) values from the Intergovernmental Panel on Climate Change (IPCC). The table below is adapted from the IPCC Sixth Assessment Report, 2020 (AR6).[i]

The AR6 values are the most recent, but the Fourth Assessment Report (2007) and Fifth Assessment Report (2014) values are also provided because they are sometimes used for inventory and reporting purposes. The use of the latest values (AR6) is recommended. IPCC also publishes 20-year and 500-year time horizon GWPs but these are not included in this publication.

For more information, refer to the original IPCC data sources:

- AR4 GWP values: https://www.ipcc.ch/site/assets/uploads/2018/05/ar4-wg1-errata.pdf
- AR5 GWP values: https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf (p. 73-79)
- AR6 GWP values: https://www.ipcc.ch/report/ar6/wg1/chapter/chapter-7/#7.6 (Section 7.6.1.1)

For more information on gases controlled under the Montreal Protocol and the Kigali Amendment, please see https://ozone.unep.org/treaties/montreal-protocol. Annex 1 provides GWP values for additional GHGs and substances.

Methane GWP Instructions

The IPCC AR6 provides multiple GWP values for methane:

- Methane - fossil
- Methane – non-fossil

The **Methane - fossil** GWP value should be used for methane emissions from fossil fuel fugitive emission sources (e.g., oil & gas systems, coal mining) and industrial processes where carbon in methane is of fossil origin (e.g., carbide production, ethylene production). This GWP value includes the added radiative forcing effect from CO_2 that is formed from the oxidation of methane, which occurs at the end of a methane molecule's atmospheric lifetime and then persists for the remainder of the 100-year time horizon.

All other sources of methane emissions, including from combustion of fossil fuels, should use the **Methane - non-fossil** GWP value. The "non-fossil" GWP does not include the oxidation to CO_2 effect as the carbon at issue is either deemed not to be a net addition to the carbon cycle (i.e., of biogenic origin) or already accounted for in CO_2 emissions from the same source. The "non-fossil" GWP should be used for combustion emissions (i.e., mobile and stationary combustion), as the GWP also does not include the methane oxidation to CO_2 as this radiative forcing is typically already accounted for through the estimation of combustion CO_2 emissions for the same emission source; therefore, it would be double counting to apply the higher fossil GWP value.[ii]

GREENHOUSE GAS PROTOCOL

IPCC Global Warming Potential (GWP) values relative to CO_2

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
Major Greenhouse Gases				
Carbon dioxide	CO_2	1	1	1
Methane – non-fossil	CH_4	25	28	27.0
Methane – fossil	CH_4	N/A	30	29.8
Nitrous oxide	N_2O	298	265	273
Nitrogen trifluoride	NF_3	17,200	16,100	17,400
Sulfur hexafluoride	SF_6	22,800	23,500	24,300
Hydrofluorocarbons (includes unsaturated hydrofluorocarbons)*				
HFC-23	CHF_3	14,800	12,400	14,600
HFC-32	CH_2F_2	675	677	771
HFC-41	CH_3F	92	116	135
HFC-125	CHF_2CF_3	3,500	3,170	3,740
HFC-134	CHF_2CHF_2	1,100	1,120	1,260
HFC-134a	CH_2FCF_3	1,430	1,300	1,530
HFC-143	CH_2FCHF_2	353	328	364
HFC-143a	CH_3CF_3	4,470	4,800	5,810
HFC-152	CH_2FCH_2F	53	16	21.5
HFC-152a	CH_3CHF_2	124	138	164
HFC-161	CH_3CH_2F	12	4	4.84
HFC-227ca	$CF_3CF_2CHF_2$		2,640	2,980
HFC-227ea	CF_3CHFCF_3	3,220	3,350	3,600
HFC-236cb	$CH_2FCF_2CF_3$	1,340	1,210	1,350
HFC-236ea	CHF_2CHFCF_3	1,370	1,330	1,500
HFC-236fa	$CF_3CH_2CF_3$	9,810	8,060	8,690
HFC-245ca	$CH_2FCF_2CHF_2$	693	716	787
HFC-245cb	$CF_3CF_2CH_3$		4,620	4,550
HFC-245ea	$CHF_2CHFCHF_2$		235	255
HFC-245eb	$CH_2FCHFCF_3$		290	325
HFC-245fa	$CHF_2CH_2CF_3$	1,030	858	962
HFC-263fb	$CH_3CH_2CF_3$		76	74.8
HFC-272ca	$CH_3CF_2CH_3$		144	599
HFC-329p	$CHF_2CF_2CF_2CF_3$		2,360	2,890
HFC-365mfc	$CH_3CF_2CH_2CF_3$	794	804	914
HFC-43-10mee	$CF_3CHFCHFCF_2CF_3$	1,640	1,650	1,600
HFO-1123	$CHF=CF_2$			0.005
HFO-1132a [a]	$CH_2=CF_2$		<1	0.052
HFO-1141 [a]	$CH_2=CHF$		<1	0.024
HFO-1225ye(Z) [a]	(Z)-$CF_3CF=CHF$		<1	0.344
HFO-1225ye(E) [a]	(E)-$CF_3CF=CHF$		<1	0.118
HFO-1234ze(Z) [a]	(Z)-$CF_3CH=CHF$		<1	0.315

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
HFO-1234ze(E) [a]	(E)-$CF_3CH=CHF$		<1	1.37
HFO-1234yf [a]	$CF_3CF=CH_2$		<1	0.501
HFO-1336mzz(E)	(E)-$CF_3CH=CHCF_3$			18
HFO-1336mzz(Z)	(Z)-$CF_3CH=CHCF_3$		2	2.08
HFO-1243zf	$CF_3CH=CH_2$		<1	0.261
HFO-1345zfc [a]	$CF_3CF_2CH=CH_2$		<1	0.182
3,3,4,4,5,5,6,6,6-nonafluorohex-1-ene	n-$C_4F_9CH=CH_2$		<1	0.204
3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooct-1-ene	n-$C_6F_{13}CH=CH_2$		<1	0.162
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodec-1-ene	n-$C_8F_{17}CH=CH_2$		<1	0.141
3,3,3-trifluoro-2-(trifluoromethyl) prop-1-ene	$(CF_3)_2C=CH_2$			0.377
1,1,2,2,3,3-hexafluorocyclopentane	cyc (-$CF_2CF_2CF_2CH_2CH_2$-)			120
1,1,2,2,3,3,4-heptafluorocyclopentane	cyc (-$CF_2CF_2CF_2CHFCH_2$-)			231
1,3,3,4,4,5,5-heptafluoro-cyclopentene	cyc (-$CF_2CF_2CF_2CF=CH$-)			45.1
(4s,5s)-1,1,2,2,3,3,4,5-octafluorocyclopentane	trans-cyc (-$CF_2CF_2CF_2CHFCHF$-)			258
HFO-1438ezy(E)	(E)-$(CF_3)_2CFCH=CHF$			8.22
HFO-1447fz	$CF_3(CF_2)_2CH=CH_2$			0.24
1,3,3,4,4-pentafluorocyclobutene	cyc (-$CH=CFCF_2CF_2$-)			92.4
3,3,4,4-tetrafluorocyclobutene	cyc (-$CH=CHCF_2CF_2$-)			25.6
Fully Fluorinated Species				
PFC-14	CF_4	7,390	6,630	7,380
PFC-116	C_2F_6	12,200	11,100	12,400
PFC-218	C_3F_8	8,830	8,900	9,290
PFC-c216	c-C_3F_6	>17,340	9,200	
PFC-C-318 (PFC-318) [b]	cyc (-$CF_2CF_2CF_2CF_2$-)	10,300	9,540	10,200
PFC-31-10 [c]	n-C_4F_{10}	8,860	9,200	10,000
PFC-41-12 [c]	n-C_5F_{12}	9,160	8,550	9,220
PFC-51-14 [c]	n-C_6F_{14}	9,300	7,910	8,620
PFC-61-16	n-C_7F_{16}		7,820	8,410
PFC-71-18	n-C_8F_{18}		7,620	8,260
PFC-91-18 [c]	$C_{10}F_{18}$	>7,500	7,190	7,480
PFC-1114	$CF_2=CF_2$		<1	0.004
PFC-1216	$CF_3CF=CF_2$		<1	0.09
Pentadecafluorotriethylamine	$N(C_2F_5)_3$			10,300
Perfluorotripropylamine	$N(CF_2CF_2CF_3)_3$			9,030

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
Heptacosafluorotributylamine	$N(CF_2CF_2CF_2CF_3)_3$			8,490
Perfluorotripentylamine	$N(CF_2CF_2CF_2CF_2CF_3)_3$			7,260
Heptafluoroisobutyronitrile	$(CF_3)_2CFCN$			2,750
Trifluoromethylsulfur pentafluoride	SF_5CF_3	17,700	17,400	18,500
Sulfuryl fluoride	SO_2F_2		4,090	4,630
Hexafluoro-cyclobutene	cyc (-$CF=CFCF_2CF_2$-)			126
Octafluoro-cyclopentene (Perfluorocyclopentene)	cyc (-$CF=CFCF_2CF_2CF_2$-)		2	78.1
1,1,2,2,3,3,4,4,4a,5,5,6,6,7,7,8,8,8a-octadecafluoronaphthalene (Perfluorodecalin (cis))	(Z)-$C_{10}F_{18}$		7,240	7,800
1,1,2,2,3,3,4,4,4a,5,5,6,6,7,7,8,8,8a-octadecafluoronaphthalene (Perfluorodecalin (trans))	(E)-$C_{10}F_{18}$		6,290	7,120
1,1,2,3,4,4-hexafluorobuta-1,3-diene	$CF_2=CFCF=CF_2$		<1	0.004
Octafluoro-1-butene	$CF_3CF_2CF=CF_2$		<1	0.102
Octafluoro-2-butene	$CF_3CF=CFCF_3$		2	1.97

Additional notes:
Cells are left blank indicate a substance is not included in the respective IPCC Assessment Report.
[*] Unsaturated hydrofluorocarbons (HFCs) are also known as hydrofluoroolefins (HFOs), and unsaturated hydrofluorochlorocarbons (HCFCs) are also known as hydrochlorofluoroolefins (HCFOs).
[a] These substances are considered an "HFC" in AR5 but are considered "HFO" in AR6.
[b] This substance is "PFC-318" in AR4 and AR5, but "PFC-C-318" in AR6.
[c] These substances' common names were previously presented in AR4 with the following format: PFC-X-X-XX.

[i] Smith, C., Z.R.J. Nicholls, K. Armour, W. Collins, P. Forster, M. Meinshausen, M.D. Palmer, and M. Watanabe, 2021: The Earth's Energy Budget, Climate Feedbacks, and Climate Sensitivity Supplementary Material. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Available from https://www.ipcc.ch/

[ii] For further background, see Tables 7.15 and 7.SM.6 in Chapter 7 of the IPCC AR6 Working Group 1 report as well as section 7.2.1.5 in Volume 1 on General Guidance and Reporting in the 2019 Refinement to the 2006 IPCC Guidelines.

Annex 1: IPCC GWP values for additional GHGs and substances

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
Chlorofluorocarbons				
CFC-11	CCl_3F	4,750	4,660	6,230
CFC-12	CCl_2F_2	10,900	10,200	12,500
CFC-13	$CClF_3$	14,400	13,900	16,200
CFC-112	CCl_2FCCl_2F			4,620
CFC-112a	CCl_3CClF_2			3,550
CFC-113	CCl_2FCClF_2	6,130	5,820	6,520
CFC-113a	CCl_3CF_3			3,930
CFC-114	$CClF_2CClF_2$	10,000	8,590	9,430
CFC-114a	CCl_2FCF_3			7,420
CFC-115	$CClF_2CF_3$	7,370	7,670	9,600
E-R316c	trans cyc (-$CClFCF_2CF_2CClF$-)			4,230
Z-R316c	cis cyc (-$CClFCF_2CF_2CClF$-)			5,660
CFC 1112	$CClF=CClF$			0.126
CFC 1112a	$CCl_2=CF_2$			0.021
Hydrochlorofluorocarbon (includes unsaturated species)*				
HCFC-21	$CHCl_2F$	151	148	160
HCFC-22	$CHClF_2$	1,810	1,760	1,960
HCFC-31	CH_2ClF			79.4
HCFC-121	$CHCl_2CCl_2F$			58.3
HCFC-122	$CHCl_2CClF_2$		59	56.4
HCFC-122a	$CHClFCCl_2F$		258	245
HCFC-123	$CHCl_2CF_3$	77	79	90.4
HCFC-123a	$CHClFCClF_2$		370	395
HCFC-124	$CHClFCF_3$	609	527	597
HCFC-124a	CHF_2CClF_2			2,070
HCFC-132	$CHClFCHClF$			122
HCFC-132a	$CHCl_2CHF_2$			70.4
HCFC-132c	CH_2FCCl_2F		338	342
HCFC-133a	CH_2ClCF_3			388
HCFC-141	$CH_2ClCHClF$			46.6
HCFC-141b	CH_3CCl_2F	725	782	860
HCFC-142b	CH_3CClF_2	2,310	1,980	2,300
HCFC-225ca	$CHCl_2CF_2CF_3$	122	127	137
HCFC-225cb	$CHClFCF_2CClF_2$	595	525	568
HCFO-1233zd(E)	(E)-$CF_3CH=CHCl$			3.88
HCFO-1233zd(Z)	(Z)-$CF_3CH=CHCl$			0.454

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
(e)-1-chloro-2-fluoroethene	(E/Z)-CHCl=CHF			0.004
(E)-1-chloro-3,3,3-trifluoroprop-1-ene	trans-$CF_3CH=CHCl$		1	
Chlorocarbons and Hydrochlorocarbons				
Methyl chloroform	CH_3CCl_3	146	160	161
Carbon tetrachloride	CCl_4	1,400	1,730	2,200
Methyl chloride	CH_3Cl	13	12	5.54
Methylene chloride	CH_2Cl_2	9	9	11.2
Chloroform	$CHCl_3$	31	16	20.6
Chloroethane	CH_3CH_2Cl			0.481
1,2-dichloroethane	CH_2ClCH_2Cl		<1	1.3
1,1,2-trichloroethene	$CHCl=CCl_2$			0.044
1,1,2,2-tetrachloroethene	$CCl_2=CCl_2$			6.34
2-chloropropane	$CH_3CHClCH_3$			0.18
1-chlorobutane	$CH_3(CH_2)_2CH_2Cl$			0.007
Bromocarbons, Hydrobromocarbons and Halons				
Methyl bromide	CH_3Br	5	2	2.43
Methylene bromide	CH_2Br_2	2	1	1.51
Halon-1201	$CHBrF_2$	404	376	380
Halon-1202	CBr_2F_2		231	216
Halon-1211	$CBrClF_2$	1,890	1,750	1,930
Halon-1301	$CBrF_3$	7,140	6,290	7,200
Halon-2301	CH_2BrCF_3		173	177
Halon-2311	$CHBrClCF_3$		41	45
Halon-2401	$CHBrFCF_3$		184	201
Halon-2402	$CBrF_2CBrF_2$	1,640	1,470	2,170
Tribromomethane	$CHBr_3$			0.25
Halon-1011	CH_2BrCl			4.74
Bromoethane	CH_3CH_2Br			0.487
1,2-dibromoethane	CH_2BrCH_2Br			1.02
1-bromopropane	$CH_3CH_2CH_2Br$			0.052
2-bromopropane	$CH_3CHBrCH_3$			0.126
Halogenated Alcohols, Ethers, Furans, Aldehydes and Ketones				
HFE-125	CHF_2OCF_3	14,900	12,400	14,300
HFE-134	CHF_2OCHF_2	6,320	5,560	6,630
HFE-143a	CH_3OCF_3	756	523	616
HFE-227ea	$CF_3CHFOCF_3$	1,540	6,450	7,520
HCFE-235ca2	CHF_2OCF_2CHFCl		583	654
HCFE-235da2	$CHF_2OCHClCF_3$	350	491	539
HFE-236ea2	$CHF_2OCHFCF_3$	989	1,790	2,590

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
HFE-236fa	$CF_3CH_2OCF_3$	487	979	1,100
HFE-245cb2	$CF_3CF_2OCH_3$	708	654	747
HFE-245fa1	$CHF_2CH_2OCF_3$	286	828	934
HFE-245fa2	$CHF_2OCH_2CF_3$	659	812	878
2,2,3,3,3-pentafluoropropan-1-ol	$CF_3CF_2CH_2OH$	42	19	34
HFE-254cb1	$CH_3OCF_2CHF_2$		301	328
HFE-254cb2	$CH_3OCF_2CHF_2$	359		
HFE-236ca	$CHF_2OCF_2CHF_2$		4,240	
HFE-263mf (HFE-263fb2)	$CF_3CH_2OCH_3$	11	1	2.06
HFE-263m1	$CF_3OCH_2CH_3$		29	29.2
HFE-365mcf2	$CF_3CF_2OCH_2CH_3$		58	
3,3,3-trifluoropropan-1-ol	$CF_3CH_2CH_2OH$		<1	0.62
HFE-329mcc2	$CHF_2CF_2OCF_2CF_3$	919	3,070	3,770
HFE-338mmz1	$(CF_3)_2CHOCHF_2$		2,620	3,040
HFE-338mcf2	$CF_3CH_2OCF_2CF_3$	552	929	1,040
HFE-347mmz1	$(CF_3)_2CHOCH_2F$		216	195
HFE-347mcc3	$CH_3OCF_2CF_2CF_3$	575	530	576
HFE-347mcf2	$CHF_2CH_2OCF_2CF_3$	374	854	963
HFE-347pcf2	$CHF_2CF_2OCH_2CF_3$	580	889	980
HFE-347mmy1	$(CF_3)_2CFOCH_3$	343	363	392
HFE-356mec3	$CH_3OCF_2CHFCF_3$	101	387	264
HFE-356mff2	$CF_3CH_2OCH_2CF_3$		17	24.4
HFE-356pcf2	$CHF_2CH_2OCF_2CHF_2$	265	719	831
HFE-356pcf3	$CHF_2OCH_2CF_2CHF_2$	502	446	484
HFE-356pcc3	$CH_3OCF_2CF_2CHF_2$	110	413	277
HFE-356mmz1	$(CF_3)_2CHOCH_3$	27	14	8.13
HFE-365mcf3	$CF_3CF_2CH_2OCH_3$	11	<1	1.6
HFE-374pc2	$CHF_2CF_2OCH_2CH_3$	557	627	12.5
4,4,4-trifluorobutan-1-ol	$CF_3(CH_2)_2CH_2OH$		<1	0.049
2,2,3,3,4,4,5,5-octafluorocyclopentan-1-ol	cyc (-$(CF_2)_4CH(OH)$-)		13	13.6
HFE-43-10pccc124	$CHF_2OCF_2OCF_2CF_2OCHF_2$	1,870	2,820	3,220
HFE-449s1	$C_4F_9OCH_3$		421	460
HFE-449sl	$C_4F_9OCH_3$	297		
n-HFE-7100	$CF_3CF_2CF_2CF_2OCH_3$		486	544
n-HFE-7200	n-$C_4F_9OC_2H_5$		65	
i-HFE-7100	$(CF_3)_2CFCF_2OCH_3$		407	437
HFE-569sf2	$C_4F_9OC_2H_5$	59	57	60.7
i-HFE-7200	$(CF_3)_2CFCF_2OCH_2CH_3$		44	34.3
HFE-7300	$(CF_3)_2CFCFOC_2H_5CF_2CF_2CF_3$			405
HFE-7500	n-$C_3F_7CFOC_2H_5CF(CF_3)_2$			13

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
HFE-236ca12	$CHF_2OCF_2OCHF_2$	2,800	5,350	6,060
HFE-338pcc13	$CHF_2OCF_2CF_2OCHF_2$	1,500	2,910	3,320
1,1,1,3,3,3-hexafluoropropan-2-ol	$(CF_3)_2CHOH$	195	182	206
HG-02	$CHF_2(OCF_2CF_2)_2OCHF_2$		2,730	5,730
HG-03	$CHF_2(OCF_2CF_2)_3OCHF_2$		2,850	5,350
HG-20	$HF_2C–(OCF_2)_2–OCF_2H$		5,300	
HG-21	$HF_2C–OCF_2CF_2OC-F_2OCF_2O–CF_2H$		3,890	
HG-30	$HF_2C–(OCF_2)_3–OCF_2H$		7,330	
Fluroxene	$CF_3CH_2OCH=CH_2$		<1	0.058
1,1,2,2-tetrafluoro-1-(fluoromethoxy)ethane	$CH_2FOCF_2CF_2H$		871	
2-ethoxy-3,3,4,4,5-pentafluorotetrahydro-2,5-bis[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]furan	$C_{12}H_5F_{19}O_2$		56	48.7
Difluoro(methoxy)methane	CH_3OCHF_2		144	136
HG'-01	$CH_3OCF_2CF_2OCH_3$		222	202
HG'-02	$CH_3O(CF_2CF_2O)_2CH_3$		236	229
HG'-03	$CH_3O(CF_2CF_2O)_3CH_3$		221	219
HFE-329me3	$CF_3CFHCF_2OCF_3$		4,550	4,390
3,3,4,4,5,5,6,6,7,7,7-undecafluoroheptan-1-ol	$CF_3(CF_2)_4CH_2CH_2OH$		<1	0.533
3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-pentadecafluorononan-1-ol	$CF_3(CF_2)_6CH_2CH_2OH$		<1	0.449
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecan-1-ol	$CF_3(CF_2)_8CH_2CH_2OH$		<1	0.273
2-chloro-1,1,2-trifluoro-1-methoxyethane	CH_3OCF_2CHClF		122	136
PFPMIE	$CF_3OCF(CF_3)CF_2OCF_2OCF_3$	10,300	9,710	10,300
HFE-216	$CF_3OCF=CF_2$		<1	0.01
Perfluoroethyl formate	CF_3CF_2OCHO		580	597
2,2,2-trifluoroethyl formate	CF_3CH_2OCHO		33	54.8
Formic acid;1,1,1,3,3,3-hexafluoro-propan-2-ol	$(CF_3)_2CHOCHO$			269
Ethenyl 2,2,2-trifluoroacetate	$CF_3COOCH=CH_2$			0.008
Ethyl 2,2,2-trifluoroacetate	$CF_3COOCH_2CH_3$		1	1.58
Prop-2-enyl-2,2,2-trifluoroacetate	$CF_3COOCH_2CH=CH_2$			0.007
Methyl 2,2,2-trifluoroacetate	CF_3COOCH_3		52	82.3
2,2,3,3,4,4,4-heptafluorobutan-1-ol	$CF_3CF_2CF_2CH_2OH$		34	36.5
1,1,2-trifluoro-2-(trifluoromethoxy)-ethane	$CHF_2CHFOCF_3$		1,240	1,260
1-ethoxy-1,1,2,3,3,3-hexafluoropropane	$CF_3CHFCF_2OCH_2CH_3$		23	26.4

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
1,1,1,2,2,3,3-heptafluoro-3-(1,2,2,2-tetrafluoroethoxy)propane	$CF_3CF_2CF_2OCHFCF_3$		6,490	6,630
2,2,3,3-tetrafluoropropan-1-ol	$CHF_2CF_2CH_2OH$		13	14.4
2,2,3,4,4,4-hexafluorobutan-1-ol	$CF_3CHFCF_2CH_2OH$		17	30.5
1,1,2,2-tetrafluoro-3-methoxypropane	$CHF_2CF_2CH_2OCH_3$		<1	1.68
1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)pentan-3-one	$CF_3CF_2COCF(CF_3)_2$			0.114
1-ethoxy-1,1,2,2,3,3,3-heptafluoropropane	$CF_3CF_2CF_2OCH_2CH_3$		61	
Fluoro(methoxy)methane	CH_3OCH_2F		13	
Fluoro(fluoromethoxy)methane	CH_2FOCH_2F		130	
Difluoro(fluoromethoxy)methane	CH_2FOCHF_2		617	
Trifluoro(fluoromethoxy)methane	CH_2FOCF_3		751	
Trifluoromethyl formate	$HCOOCF_3$		588	
Perfluoropropyl formate	$HCOOCF_2CF_2CF_3$		376	
Perfluorobutyl formate	$HCOOCF_2CF_2CF_2CF_3$		392	
3,3,3-trifluoropropyl formate	$HCOOCH_2CH_2CF_3$		17	
1,2,2,2-tetrafluoroethyl formate	$HCOOCHFCF_3$		470	
1,1,1,3,3,3-hexafluoropropan-2-yl formate	$HCOOCH(CF_3)_2$		333	
Perfluorobutyl acetate	$CH_3COOCF_2CF_2CF_2CF_3$		2	
Perfluoropropyl acetate	$CH_3COOCF_2CF_2CF_3$		2	
Perfluoroethyl acetate	$CH_3COOCF_2CF_3$		2	
Trifluoromethyl acetate	CH_3COOCF_3		2	
Methyl carbonofluoridate	$FCOOCH_3$		95	
1,1-difluoroethyl carbonofluoridate	$FCOOCF_2CH_3$		27	
1,1-difluoroethyl 2,2,2-trifluoroacetate	$CF_3COOCF_2CH_3$		31	
2,2,2-trifluoroethyl 2,2,2-trifluoroacetate	$CF_3COOCH_2CF_3$		7	
Methyl 2,2-difluoroacetate	HCF_2COOCH_3		3	
Difluoromethyl 2,2,2-trifluoroacetate	$CF_3COOCHF_2$		27	
Perfluoro-2-methyl-3-pentanone	$CF_3CF_2C(O)CF(CF_3)_2$		<1	
1,1'-Oxybis[2-(difluoromethoxy)-1,1,2,2-tetrafluoroethane	$HCF_2O(CF_2CF_2O)_2CF_2H$		4,920	
1,1,3,3,4,4,6,6,7,7,9,9,10,10,12,12-hexa-decafluoro-2,5,8,11-Tetraoxadodecane	$HCF_2O(CF_2CF_2O)_3CF_2H$		4,490	
1,1,3,3,4,4,6,6,7,7,9,9,10,10,12,12,13,13,15,15-eicosafluoro-2,5,8,11,14-pentaoxapentadecane	$HCF_2O(CF_2CF_2O)_4CF_2H$		3,630	
3,3,3-trifluoropropanal	CF_3CH_2CHO		<1	0.025
2-fluoroethanol	CH_2FCH_2OH		<1	0.53
2,2-difluoroethanol	CHF_2CH_2OH		3	6.18
2,2,2-trifluoroethanol	CF_3CH_2OH		20	35.7

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
HG-04	$CHF_2O(CF_2CF_2O)_4CHF_2$			4,380
Methyl-perfluoro-heptene-ethers	$CH_3OC_7F_{13}$			15.1
1,1,1-trifluoro-propan-2-one	CF_3COCH_3			0.09
1,1,1-trifluoro-butan-2-one	$CF_3COCH_2CH_3$			0.095
1-chloro-2-ethen-oxyethane	$ClCH_2CH_2OCH=CH_2$			0
Octafluoro-oxolane	$c\text{-}C_4F_8O$			13,900

Additional notes:

Cells are left blank indicate a substance is not included in the respective IPCC Assessment Report.
* Unsaturated hydrofluorocarbons (HFCs) are also known as hydrofluoroolefins (HFOs), and unsaturated hydrofluorochlorocarbons (HCFCs) are also known as hydrochlorofluoroolefins (HCFOs).