

**Table of HFCs and PFCs and Pounds of Chemicals that Trigger Reporting Requirements**

<b>Hydrofluorocarbons (HFCs)</b>						
Designation	Pounds of Substance = 10,000 metric tons C <sub>e</sub>	Chemical Name, Trade Names, Blends		Applications	CAS number	GWP
HFC-23	1,480	trifluoromethane	Suva 95	low temperature refrigerant, fire extinguishant, plasma etchant, semi-conductor manufacturing cleaning agent	75-46-7	14,800
		fluoroform	Genetron 503			
		R-23	Genetron 23			
		Freon 23	Klea 23			
		FE-13	Klea 508			
		FE-36	Klea 5R3			
HFC-32	32,660	Forane FX 220	NARM 503	component in refrigerant blends	75-10-5	675
		difluoromethane	R-407C			
		methylene fluoride	Klea 407A			
		R-32	Klea 407B			
		R-410A	Klea 407C			
		R-407C	Klea 407D			
		Freon 32	Klea 410A			
		Forane 410A (AZ-20)	Klea 32			
		Forane FX 40	Genetron 407C			
		Forane FX 220	AZ-20			
		Forane 407C	EcoloAce 407c			
		Forane 32	HX4			
		Asahiklin SA-39	Solkane 407C			
		Asahiklin SA-45	Solkane 410			
		Meforex 98	Suva 9000			
Meforex 32	Suva 9100					
R-410A						
HFC-41	227,280	methyl fluoride	R-41		593-53-3	97
		fluoromethane				
HFC-43-10mee	13,440	decafluoropentane		cleaning solvent	138495-42-8	1,640
HFC-125	6,300	ethane	Forane 507			
		pentafuoro	Forane FX10			
		pentaffluoroethane	Forane FX40			
		R-125	Forane FX70			
		FC-125	Suva 125			
		Freon 125	Suva 9000			
		FE-25	Suva 9100			
		Arcton 402A	Suva HP62			
		Arcton 402B	Suva HP80			
		Arcton 408A	Suva HP81			
		Klea 404A	Cooltop R-134a Replacement			
		Klea 407A	EcoloAce 404a			
		Klea 407B	Di 44			
		Klea 407C	Meforex 125			
		Klea 407D	Meforex 55			
		Klea 410A	Meforex 57			
		Klea 507A	Meforex 98			
		Asahiklin SA-28	ISCEON 29			
		Asahiklin SA-39	ISCEON 404A			
		Asahiklin SA-45	ISCEON 507			
		AZ-20	ISCEON 59			
		AZ-50	ISCEON 79			
		Genetron 404A	ISCEON 89			
		Genetron 125	RX3			
		Genetron 407C	NAF P IV			
		Genetron 408A	NAF S 125			
		Genetron HP80	R-404A			
		Genetron HP81	Solkane 404A			
		Forane 125	Solkane 507			
		Forane 404A	Reclin 507			
		Forane 407C	HX4			
		Forane 410A (AZ-20)	R404a			
		HFC-134	20,040			
HFC-134a	15,420	tetrafluoroethane	Genetron 404A	residential refrigerant, component of refrigerant blends, foaming agent PS foams, fire extinguishant, medical propellants, aerosol propellants	811-97-2	1,430
		norflurane	Genetron 134a			
		R-134a	Genetron 407C			
		FC-134a	HX4			
		Freon 134a	Solkane 134a (F)			
		Asahiklin AK-134a	Solkane 134a (R)			
		Asahiklin SA-39	Solkane XG87			
		Asahiklin SA-45	HFC-134a			
		Cooltop R-134a Replacement	ISCEON 134a			
		Di 24	ISCEON 29			
		Meforex 134a	ISCEON 39TC			
		Meforex 55	ISCEON 404A			
		Dymel 134a	ISCEON 49			
		Formacel Z4	ISCEON 59			
		Ecolo Ace 134a	ISCEON 79			
		Ecolo Ace 404a	Johnsens Freeze 12			
		Ecolo Ace 407c	Klea 134a			
		Floron 134a	Klea 404A			
		Forane 134a	Klea 407A			
		Forane 404A	Klea 407B			
		Forane 407C	Klea 407C			
		Forane FX 220	Klea 407D			
		Forane FX 70	NAF P III			
		Free Zone	Solpower SP34E			
		Free Zone RB-276	R404a			
		Freezone	Suva 134a			
		FRIGC	Suva 9000			
		FRIGC FR-12	Suva HP62			
		FRIGC FR-12				

HFC-143	66,800	R-143	trifluoroethane		430-66-0	330	
HFC-143a	4,940	R-143a	Forane 404A	component in refrigerant blends	420-46-2	4,470	
			trifluoroethane				Forane 507
			Freon 143a				Forane FX 10
			Arcton 408A				Forane FX 20
			Asahiklin SA-28				Forane FX 40
			Asahiklin SA-45				Forane FX 70
			AZ-50				HX4
			Genetron 404A				Reclin 507
			Genetron 408A				Solkane 507
			Di 44				ISCEON 404A
			Meforex 143a				ISCEON 507
			Meforex 55				Klea 404A
			Meforex 57				Klea 507A
			EcoloAce 404a				R404a
	Suva HP62						
HFC-152	512,700	difluoroethane	R-152		624-72-6	43	
HFC-152a	177,800	difluoroethane	Solkane 152a	component in refrigerant blends, foaming agent for PS foams, aerosol propellant, temperature sensing agent	75-37-6	124	
			ethylidene difluoride				Solkane XG87
			R-152a				Genetron 152a
			FC-152a				Genetron 500
			Freon 152a				Genetron MP 39
			Asahifron R-152a				Genetron MP 66
			Asahifron R-500				Genetron 500
			Cooltop R-134a Replacement				ISCEON 500
			DaiFlon 500				NARM-502
			Dymel 152a				R415a
			Formacel Z2				Suva MP39
			Flon Showa 500				Suva MP52
			Forane 500				Suva MP66
			Frigen 500				
HFC-161	1,837,160	ethyl fluoride fluoroethane	R-161		353-36-6	12	
HFC-227ca	7,600	R-227ca	heptafluoropropane		2252-84-8	2,900	
HFC-227ea	6,840	heptafluoropropane	FE-227	refrigerant, fire, extinguishant, medical propellant	431-89-0 3	220	
			R-227ea				FM-200
HFC-236cb	16,960	R-236cb	hexafluoropropane		677-56-5	1,300	
HFC-236fa	2,240	hexafluoropropane	FC-236fa	refrigerant, fire, extinguishant, foaming agent, medical propellant	690-39-1 9	810	
			R-236fa				FE-36
HFC-236ea	18,380	hexafluoropropane	R-236ea		431-63-0	1,200	
HFC-245ca	34,440	R-245a	pentafluoropropane	possible future refrigerant	679-86-7	640	
HFC-245fa	21,400	R-245a	pentafluoropropane	foaming agent for PU foams, possible future refrigerant	460-73-1	1,030	
HFC-365mfc	27,760	pentafluorobutane	R-365mfc	foaming agent for PU and phenolic foams, possible future refrigerant	406-58-6	794	
HFC-c-447-ef	88.180	heptafluorocyclopentane			15290-77-4	250	
<b>Perfluorinated Compounds (PFCs)</b>							
PFC-14	2,980	tetrafluoromethane	carbon tetrafluoride	plasma etchant, semiconductor manufacturing cleaning agent, low temperature refrigerant	75-73-0	7,390	
			perfluoromethane				R-14
PFC-116	1,800	hexafluoroethane	Freon 116	plasma etchant, semiconductor manufacturing cleaning agent	76-16-4	12,200	
			perfluoroethane				Klea 508
			H-116				Suva 95
			CF-116				
PFC-218	2,500	octafluoropropane	Arcton TP5R	plasma etchant, semiconductor manufacturing cleaning agent, low temperature refrigerant, fire extinguishant	76-19-7	8,830	
			perfluoropropane				Arcton TP5R2
			R-218				ISCEON 49
			FC-218				ISCEON 69-L
			Freon 218				ISCEON 69S
			CEA-308				RX3
			Arcton 412A				ISCEON 89
			Arcton 509				Meforex 218
PFC-318 or PFC-c318	2,140	perfluorocyclobutane	RC-318	plasma etchant, cleaning agent, dielectric, refrigerant, media of polymerization of fluorinecontained polymers, propellant in food industry	115-25-3	10,300	
			octofluorocyclobutane				Freon 318
			R-c318				
PFC-3-1-10	2,480	decafluorobutane	R-31-10	refrigerant, fire extinguishant	355-25-9	8,860	
			perfluorobutane				CEA-410
			perfluoro-n-butane				PFC-410
PFC-4-1-12	2,400	dodecafluoropentane	R-41-12	refrigerant, precision cleaning solvent	678-26-2	9,160	
			perfluoropentane				
PFC-5-1-14	2,380	tetradecane fluorohehexane	R-51-14	refrigerant, precision cleaning solvent, fire extinguishant	355-42-0	9,300	
			perfluorohehexane				CEA-614
PFC-9-1-18	3,020	perfluorodecalin			306-94-5	>7300	
c-C3F6	1,320	perfluorocyclopropane			931-91-9	16,800	

**Other High GWP Greenhouse Gases**

SF <sub>5</sub> CF <sub>3</sub>	1,240	trifluoromethyl sulfur pentafluoride		by-product of fluorochemical manufacturing	373-80-8	17,700
NF <sub>3</sub>	1,280	trifluoramine	nitrogen trifluoride	plasma etchant, semiconductor manufacturing cleaning agent	7783-54-2	17,200
		nitrogen fluoride				
CH <sub>3</sub> IF <sub>3</sub>	22,046,000	trifluoromethyl iodide	R-1311	Fire suppressant - primarily electrical/electronic related fires	2314-97-8	1
		trifluoroiodomethane				
SF <sub>6</sub>	960	sulfur hexafluoride	R-7164	dielectric and insulating gas in electric power equipment; inert filling for double-pane windows; magnesium casting, fire extinguishant	2551-62-4	22,800