

Environmental Protection Agency

Pt. 63, Subpt. F, Table 1

HAP at the point of discharge to the atmosphere (or at the point of entry into a control device, if any).

(e) The air oxidation reactor, distillation unit, or reactor is part of a chemical manufacturing process unit that meets the criteria of §63.100(b).

(f) The gas stream is in the gas phase from the point of origin at the air oxidation reactor, distillation unit, or reactor to the point of discharge to the atmosphere (or to the point of entry into a control device, if any).

(g) The gas stream is discharged to the atmosphere either on-site, off-site, or both.

(h) The gas stream is not any of the items identified in paragraphs (h)(1) through (9) of this section.

(1) A relief valve discharge.

(2) A leak from equipment subject to subpart H of this part.

(3) A gas stream going to a fuel gas system as defined in §63.101.

(4) A gas stream exiting a control device used to comply with §63.113.

(5) A gas stream transferred to other processes (on-site or off-site) for reaction or other use in another process (i.e., for chemical value as a product, isolated intermediate, byproduct, or coproduct, or for heat value).

(6) A gas stream transferred for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use, or reuse.

(7) A storage vessel vent or transfer operation vent subject to §63.119 or §63.126.

(8) A vent from a waste management unit subject to §§63.132 through 63.137.

(9) A gas stream exiting an analyzer.

(i) The gas stream would meet the characteristics specified in paragraphs (b) through (g) of this section, but, for purposes of avoiding applicability, has been deliberately interrupted, temporarily liquefied, routed through any item of equipment for no process purpose, or disposed of in a flare that does not meet the criteria in §63.11(b), or an incinerator that does not reduce emissions of organic HAP by 98 percent or to a concentration of 20 parts per million by volume, whichever is less stringent.

[66 FR 6928, Jan. 22, 2001]

TABLE 1 TO SUBPART F OF PART 63—  
SYNTHETIC ORGANIC CHEMICAL MAN-  
UFACTURING INDUSTRY CHEMICALS

Chemical name <sup>a</sup>	CAS No. <sup>b</sup>	Group
Acenaphthene .....	83329	V
Acetal .....	105577	V
Acetaldehyde .....	75070	II
Acetamide .....	60355	II
Acetanilide .....	103844	II
Acetic acid .....	64197	II
Acetic anhydride .....	108247	II
Acetoacetanilide .....	102012	III
Acetone .....	67641	I
Acetone cyanohydrin .....	75865	V
Acetonitrile .....	75058	I
Acetophenone .....	98862	I
Acrolein .....	107028	IV
Acrylamide .....	79061	I
Acrylic acid .....	79107	IV
Acrylonitrile .....	107131	I
Adiponitrile .....	111693	I
Alizarin .....	72480	V
Alkyl anthraquinones .....	008	V
Allyl alcohol .....	107186	I
Allyl chloride .....	107051	IV
Allyl cyanide .....	109751	IV
Aminophenol sulfonic acid .....	0010	V
Aminophenol (p-) .....	123308	I
Aniline .....	62533	I
Aniline hydrochloride .....	142041	III
Anisidine (o-) .....	90040	II
Anthracene .....	120127	V
Anthraquinone .....	84651	III
Azobenzene .....	103333	I
Benzaldehyde .....	100527	III
Benzene .....	71432	I
Benzenedisulfonic acid .....	98486	I
Benzenesulfonic acid .....	98113	I
Benzil .....	134816	III
Benzilic acid .....	76937	III
Benzoic acid .....	65850	III
Benzoin .....	119539	III
Benzonitrile .....	100470	III
Benzophenone .....	119619	I
Benzotrichloride .....	98077	III
Benzoyl chloride .....	98884	III
Benzyl acetate .....	140114	III
Benzyl alcohol .....	100516	III
Benzyl benzoate .....	120514	III
Benzyl chloride .....	100447	III
Benzyl dichloride .....	98873	III
Biphenyl .....	92524	I
Bisphenol A .....	80057	III
Bis(Chloromethyl) Ether .....	542881	I
Bromobenzene .....	108861	I
Bromoform .....	75252	V
Bromonaphthalene .....	27497514	IV
Butadiene (1,3-) .....	106990	II
Butanediol (1,4-) .....	110634	I
Butyl acrylate (n-) .....	141322	V
Butylene glycol (1,3-) .....	107880	II
Butyrolactone .....	96480	I
Caprolactam .....	105602	II
Carbaryl .....	63252	V
Carbazole .....	86748	V
Carbon disulfide .....	75150	IV
Carbon tetrabromide .....	558134	II
Carbon tetrachloride .....	56235	I
Carbon tetrafluoride .....	75730	II
Chloral .....	75876	II
Chloroacetic acid .....	79118	II
Chloroacetophenone (2-) .....	532274	I
Chloroaniline (p-) .....	106478	II
Chlorobenzene .....	108907	I

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Chemical name <sup>a</sup>	CAS No. <sup>b</sup>	Group	Chemical name <sup>a</sup>	CAS No. <sup>b</sup>	Group
2-Chloro-1,3-butadiene (Chloroprene)	126998	II	(3,3'-)		
Chlorodifluoroethane	25497294	V	Dimethyl ether	115106	IV
Chlorodifluoromethane	75456	I	Dimethylformamide (N,N-)	68122	II
Chloroform	67663	I	Dimethylhydrazine	57147	II
Chloronaphthalene	25586430	IV	(1,1-)		
Chloronitrobenzene	121733	I	Dimethyl sulfate	77781	I
(m-)			Dimethyl terephthalate	120616	II
Chloronitrobenzene	88733	I	Dimethylamine	124403	IV
(o-)			Dimethylaminoethanol (2-)	108010	I
Chloronitrobenzene	100005	I	Dimethylaniline (N,N')	121697	III
(p-)			Dinitrobenzenes (NOS) <sup>c</sup>	25154545	I
Chlorophenol (m-)	108430	II	Dinitrophenol (2,4-)	51285	III
Chlorophenol (o-)	95578	II	Dinitrotoluene (2,4-)	121142	III
Chlorophenol (p-)	106489	II	Dioxane (1,4-) (1,4-Diethyleneoxide)	1239	11I
Chlorotoluene (m-)	108418	III	Dioxolane (1,3-)	646060	I
Chlorotoluene (o-)	95498	III	Diphenyl methane	101815	I
Chlorotoluene (p-)	106434	III	Diphenyl oxide	101848	I
Chlorotrifluoromethane	75729	II	Diphenyl thiourea	102089	III
Chrysene	218019	V	Diphenylamine	122394	III
Cresol and cresylic acid (m-)	108394	III	Dipropylene glycol	110985	I
Cresol and cresylic acid (o-)	95487	III	Di-o-tolylguanidine	97392	III
Cresol and cresylic acid (p-)	106445	III	Dodecanedioic acid	693232	I
Cresols and cresylic acids (mixed)	1319773	III	Dodecyl benzene (branched)	123013	V
Cumene	98828	I	Dodecyl phenol (branched)	12158585	V
Cumene hydroperoxide	80159	I	Dodecylaniline	28675174	V
Cyanoacetic acid	372098	II	Dodecylbenzene (n-)	121013	I
Cyclohexane	110827	I	Dodecylphenol	27193868	III
Cyclohexanol	108930	I	Epichlorohydrin (1-chloro-2,3-epoxypropane)	106898	I
Cyclohexanone	108941	I	Ethanolamine	141435	I
Cyclohexylamine	108918	III	Ethyl acrylate	140885	II
Cyclooctadienes	29965977	II	Ethylbenzene	100414	I
Decahydronaphthalene	91178	IV	Ethyl chloride (Chloroethane)	75003	IV
Diacetoxy-2-Butene (1,4-)	0012	V	Ethyl chloroacetate	105395	II
Diaminophenol hydrochloride	137097	V	Ethylamine	75047	V
Dibromomethane	74953	V	Ethylaniline (N-)	103695	III
Dichloroaniline (mixed isomers)	27134276	I	Ethylaniline (o-)	578541	III
Dichlorobenzene (p-)	106467	I	Ethylcellulose	9004573	V
Dichlorobenzene (m-)	541731	I	Ethylcyanoacetate	105566	V
Dichlorobenzene (o-)	95501	I	Ethylene carbonate	96491	I
Dichlorobenzidine	91941	I	Ethylene dibromide (Dibromoethane)	106934	I
(3,3'-)			Ethylene glycol	107211	I
Dichlorodifluoromethane	75718	I	Ethylene glycol diacetate	111557	I
Dichloroethane (1,2-)	107062	I	Ethylene glycol dibutyl ether	112481	V
(Ethylenedichloride) (EDC)			Ethylene glycol diethyl ether	629141	I
Dichloroethyl ether (bis(2-chloroethyl)ether)	111444	I	(1,2-diethoxyethane)		
Dichloroethylene (1,2-)	540590	II	Ethylene glycol	110714	I
Dichlorophenol (2,4-)	120832	III	dimethyl ether		
Dichloropropene (1,3-)	542756	II	Ethylene glycol monoacetate	542596	V
Dichlorotetrafluoroethane	1320372	V	Ethylene glycol monobutyl ether acetate	112072	I
Dichloro-1-butene (3,4-)	760236	II	Ethylene glycol monobutyl ether	111762	I
Dichloro-2-butene (1,4-)	764410	V	Ethylene glycol monoethyl ether acetate	111159	I
Diethanolamine (2,2'-Iminodiethanol)	111422	I	Ethylene glycol monoethyl ether	110805	I
Diethyl sulfate	64675	II	Ethylene glycol monohexyl ether	112254	V
Diethylamine	109897	IV	Ethylene glycol monomethyl ether acetate	110496	I
Diethylaniline (2,6-)	579668	V	Ethylene glycol monomethyl ether	109864	I
Diethylene glycol	111466	I	Ethylene glycol monoethyl ether	002	V
Diethylene glycol dibutyl ether	112732	I	Ethylene glycol monoethyl ether	122996	I
Diethylene glycol diethyl ether	112367	I	Ethylene glycol monopropyl ether	2807309	I
Diethylene glycol dimethyl ether	111966	I	Ethylene oxide	75218	I
Diethylene glycol monobutyl ether acetate	124174	I	Ethylenediamine	107153	II
Diethylene glycol monobutyl ether	112345	I	Ethylenediamine tetraacetic acid	60004	V
Diethylene glycol monoethyl ether acetate	112152	I	Ethylenimine (Aziridine)	151564	II
Diethylene glycol monoethyl ether	111900	I	Ethylhexyl acrylate (2-isomer)	103117	II
Diethylene glycol monohexyl ether	112594	V	Fluoranthene	206440	V
Diethylene glycol monomethyl ether acetate	629389	V	Formaldehyde	50000	I
Diethylene glycol monomethyl ether	111773	I	Formamide	75127	II
Dihydroxybenzoic acid (Resorcylic acid)	27138574	V	Formic acid	64186	II
Dimethylbenzidine	119937	II	Fumaric acid	110178	I
			Glutaraldehyde	111308	IV
			Glyceraldehyde	367475	V

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Chemical name <sup>a</sup>	CAS No. <sup>b</sup>	Group	Chemical name <sup>a</sup>	CAS No. <sup>b</sup>	Group
Glycerol	56815	II	Nitrotoluene (o-)	88722	III
Glycine	56406	II	Nitrotoluene (m-)	99081	III
Glyoxal	107222	II	Nitrotoluene (p-)	99990	III
Hexachlorobenzene	118741	II	Nitroxylene	25168041	V
Hexachlorobutadiene	87683	II	Nonylbenzene (branched)	1081772	V
Hexachloroethane	67721	II	Nonylphenol	25154523	V
Hexadiene (1,4-)	592450	II	Octene-1	111660	I
Hexamethylene-tetramine.	100970	I	Octylphenol	27193288	III
Hexane	110543	V	Paraformaldehyde	30525894	I
Hexanetriol (1,2,6-)	106694	IV	Paraldehyde	123637	II
Hydroquinone	123319	I	Pentachlorophenol	87865	III
Hydroxyadipaldehyde	141311	V	Pentaerythritol	115775	I
Isobutyl acrylate	106638	V	Peracetic acid	79210	II
Isobutylene	115117	V	Perchloromethyl mercaptan	594423	IV
Isophorone	78591	IV	Phenanthrene	85018	V
Isophorone nitrile	0017	V	Phenetidine (p-)	156434	III
Isophthalic acid	121915	III	Phenol	108952	III
Isopropylphenol	25168063	III	Phenolphthalein	77098	III
Linear alkylbenzene	d	I	Phenolsulfonic acids (all isomers)	1333397	III
Maleic anhydride	108316	I	Phenyl anthranilic acid (all isomers)	91407	III
Maleic hydrazide	123331	I	Phenylenediamine (p-)	106503	I
Malic acid	6915157	I	Phloroglucinol	108736	III
Metanilic acid	121471	I	Phosgene	75445	IV
Methacrylic acid	79414	V	Phthalic acid	88993	III
Methanol	67561	IV	Phthalic anhydride	85449	III
Methionine	63683	I	Phthalimide	85416	III
Methyl acetate	79209	IV	Phthalonitrile	91156	III
Methyl acrylate	96333	V	Picoline (b-)	108996	II
Methyl bromide (Bromomethane)	74839	IV	Piperazine	110850	I
Methyl chloride (Chloromethane)	74873	IV	Propiolactone (beta-)	57578	I
Methyl ethyl ketone (2-butanone)	78933	V	Propionaldehyde	123386	IV
Methyl formate	107313	II	Propionic acid	79094	I
Methyl hydrazine	60344	IV	Propylene carbonate	108327	V
Methyl isobutyl carbinol	108112	IV	Propylene dichloride (1,2-dichloropropane).	78875	IV
Methyl isobutyl ketone (Hexone)	108101	IV	Propylene glycol	57556	I
Methyl isocyanate	624839	IV	Propylene glycol monomethyl ether	107982	I
Methyl mercaptan	74931	IV	Propylene oxide	75569	I
Methyl methacrylate	80626	IV	Pyrene	129000	V
Methyl phenyl carbinol	98851	II	Pyridine	110861	II
Methyl tert-butyl ether	1634044	V	p-tert-Butyl toluene	98511	III
Methylamine	74895	IV	Quinone	106514	III
Methylaniline (N-)	100618	III	Resorcinol	108463	I
Methylcyclohexane	108872	III	Salicylic acid	69727	III
Methylcyclohexanol	25639423	V	Sodium methoxide	124414	IV
Methylcyclohexanone	1331222	III	Sodium phenate	139026	III
Methylene chloride (Dichloromethane).	75092	I	Stilbene	588590	III
Methylene dianiline (4,4'-isomer)	101779	I	Styrene	100425	I
Methylene diphenyl diisocyanate (4,4'-) (MDI).	101688	III	Succinic acid	110156	I
Methylenones (a-)	79696	V	Succinonitrile	110612	I
Methylpentynol	77758	V	Sulfanilic acid	121573	III
Methylstyrene (a-)	98839	I	Sulfolane	126330	II
Naphthalene	91203	IV	Tartaric acid	526830	I
Naphthalene sulfonic acid (a-)	85472	IV	Terephthalic acid	100210	II
Naphthalene sulfonic acid (b-)	120183	IV	Tetrabromophthalic anhydride	632791	III
Naphthol (a-)	90153	IV	Tetrachlorobenzene (1,2,4,5-)	95943	I
Naphthol (b-)	135193	IV	Tetrachloroethane (1,1,2,2-)	79345	II
Naphtholsulfonic acid (1-)	567180	V	Tetrachloroethylene (Perchloroethylene).	127184	I
Naphthylamine sulfonic acid (1,4-)	84866	V	Tetrachlorophthalic-anhydride.	117088	III
Naphthylamine sulfonic acid (2,1-)	81163	V	Tetraethyl lead	78002	IV
Naphthylamine (1-)	134327	V	Tetraethylene glycol	112607	I
Naphthylamine (2-)	91598	V	Tetraethylene-pentamine.	112572	V
Nitroaniline (m-)	99092	II	Tetrahydrofuran	109999	I
Nitroaniline (o-)	88744	I	Tetrahydronaphthalene	119642	IV
Nitroanisole (o-)	91236	III	Tetrahydrophthalic anhydride	85438	II
Nitroanisole (p-)	100174	III	Tetramethylene-diamine.	110601	II
Nitrobenzene	98953	I	Tetramethylethylenediamine	110189	V
Nitronaphthalene (1-)	86577	IV	Tetramethyllead	75741	V
Nitrophenol (p-)	100027	III	Toluene	108883	I
Nitrophenol (o-)	88755	III	Toluene 2,4 diamine	95807	II
Nitropropane (2-)	79469	II			
Nitrotoluene (all isomers)	1321126	III			

Pt. 63, Subpt. F, Table 2

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Chemical name <sup>a</sup>	CAS No. <sup>b</sup>	Group
Toluene 2,4 diisocyanate .....	584849	II
Toluene diisocyanates (mixture) .....	26471625	II
Toluene sulfonic acids .....	104154	III
Toluenesulfonyl chloride .....	98599	III
Toluidine (o-) .....	95534	II
Trichloroaniline-(2,4,6-) .....	634935	III
Trichlorobenzene (1,2,3-) .....	87616	V
Trichlorobenzene (1,2,4-) .....	120821	I
Trichloroethane (1,1,1-) .....	71556	II
Trichloroethane (1,1,2-) (Vinyl tri-chloride) .....	79005	II
Trichloroethylene .....	79016	I
Trichlorofluoromethane .....	75694	I
Trichlorophenol (2,4,5-) .....	95954	I
(1,1,2-) Trichloro (1,2,2-) trifluoroethane .....	76131	I
Triethanolamine .....	102716	I
Triethylamine .....	121448	IV
Triethylene glycol .....	112276	I
Triethylene glycol dimethyl ether .....	112492	I
Triethylene glycol monoethyl ether .....	112505	V
Triethylene glycol monomethyl ether .....	112356	I
Trimethylamine .....	75503	IV
Trimethylcyclohexanol .....	933482	IV
Trimethylcyclohexanone .....	2408379	IV
Trimethylcyclohexylamine .....	34216347	V
Trimethylolpropane .....	77996	I
Trimethylpentane (2,2,4-) .....	540841	V
Tripropylene glycol .....	24800440	V
Vinyl acetate .....	108054	II
Vinyl chloride (Chloroethylene) .....	75014	I
Vinyl toluene .....	25013154	III
Vinylcyclohexene (4-) .....	100403	II
Vinylidene chloride (1,1-dichloroethylene) .....	75354	II
Vinyl(N)-pyrrolidone(2-) .....	88120	V
Xanthates .....	140896	V
Xylene sulfonic acid .....	25321419	III
Xylenes (NOS) <sup>c</sup> .....	1330207	I
Xylene (m-) .....	108383	I
Xylene (o-) .....	95476	I
Xylene (p-) .....	106423	I
Xylenols (Mixed) .....	1300716	V
Xylidene .....	1300738	III

<sup>a</sup> Isomer means all structural arrangements for the same number of atoms of each element and does not mean salts, esters, or derivatives.  
<sup>b</sup> CAS Number = Chemical Abstract Service number.  
<sup>c</sup> NOS = not otherwise specified.  
<sup>d</sup> No CAS number assigned.

[59 FR 19454, Apr. 22, 1994, as amended at 59 FR 48176, Sept. 20, 1994; 61 FR 31439, June 20, 1996; 63 FR 26082, May 12, 1998]

TABLE 2 TO SUBPART F OF PART 63—ORGANIC HAZARDOUS AIR POLLUTANTS

Chemical name <sup>a,b</sup>	CAS No. <sup>c</sup>
Acenaphthene .....	83329
Acetaldehyde .....	75070
Acetamide .....	60355
Acetonitrile .....	75058
Acetophenone .....	98862
Acrolein .....	107028
Acrylamide .....	79061

Chemical name <sup>a,b</sup>	CAS No. <sup>c</sup>
Acrylic acid .....	79107
Acrylonitrile .....	107131
Alizarin .....	72480
Allyl chloride .....	107051
Aniline .....	62533
Anisidine (o-) .....	90040
Anthracene .....	120127
Anthraquinone .....	84651
Benzene .....	71432
Benzotrichloride .....	98077
Benzyl chloride .....	100447
Biphenyl .....	92524
Bis(chloromethyl)ether .....	542881
Bromoform .....	75252
Bromonaphthalene .....	27497514
Butadiene (1,3-) .....	106990
Carbon disulfide .....	75150
Carbon tetrachloride .....	56235
Chloroacetic acid .....	79118
Chloroacetophenone (2-) .....	532274
Chlorobenzene .....	108907
2-Chloro-1,3-butadiene (Chloroprene) .....	126998
Chloroform .....	67663
Chloronaphthalene .....	25586430
Chrysene .....	218019
Cresols and cresylic acids (mixed) .....	1319773
Cresol and cresylic acid (o-) .....	95487
Cresol and cresylic acid (m-) .....	108394
Cresol and cresylic acid (p-) .....	106445
Cumene .....	98828
Dichlorobenzene (p-) .....	106467
Dichlorobenzidine (3,3'-) .....	91941
Dichloroethane (1,2-) (Ethylene dichloride) (EDC) .....	107062
Dichloroethylether (Bis(2-chloroethyl)ether) .....	111444
Dichloropropene (1,3-) .....	542756
Diethanolamine (2,2'-Iminodiethanol) .....	111422
Dimethylaniline (N,N-) .....	121697
Diethyl sulfate .....	64675
Dimethylbenzidine (3,3'-) .....	119937
Dimethylformamide (N,N-) .....	68122
Dimethylhydrazine (1,1-) .....	58147
Dimethylphthalate .....	131113
Dimethylsulfate .....	77781
Dinitrophenol (2,4-) .....	51285
Dinitrotoluene (2,4-) .....	121142
Dioxane (1,4-) (1,4-Diethyleneoxide) .....	123911
1,2-Diphenylhydrazine .....	122667
Epichlorohydrin (1-Chloro-2,3-epoxypropane) .....	106898
Ethyl acrylate .....	140885
Ethylbenzene .....	100414
Ethyl chloride (Chloroethane) .....	75003
Ethylene dibromide (Dibromoethane) .....	106934
Ethylene glycol .....	107211
Ethylene oxide .....	75218
Ethylidene dichloride (1,1-Dichloroethane) .....	75343
Fluoranthene .....	206440
Formaldehyde .....	50000
Glycol ethers <sup>d</sup> .....	
Hexachlorobenzene .....	118741
Hexachlorobutadiene .....	87683
Hexachloroethane .....	67721
Hexane .....	110543
Hydroquinone .....	123319
Isophorone .....	78591
Maleic anhydride .....	108316
Methanol .....	67561
Methylbromide (Bromomethane) .....	74839
Methylchloride (Chloromethane) .....	74873
Methyl hydrazine .....	60344
Methyl isobutyl ketone (Hexone) .....	108101
Methyl isocyanate .....	624839
Methyl methacrylate .....	80626
Methyl tert-butyl ether .....	1634044