

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Route	Symptoms (See Table 5)	Health hazards		Target organs (See Table 5)	
Clothing	Goggles	Repeat Reason prob Prompt contam N.R. Prompt non-imperv contam	Inh Abs Ing Con	Irrit eyes, nose, throat, skin; narco	Eye Skin Breath Swallow	First aid (See Table 6)		
Clothing	Goggles	Repeat Reason prob Prompt contam N.R. Prompt non-imperv contam	NIOSH/OSHA 500 ppm CCROV/SA/SCBA* 1000 ppm PAPROV/CCRFOV 1250 ppm SA:CF* 2500 ppm: GMFOV/SCBAF/SAF 3500 ppm: SAF PD,PP § SCBAF:PD,PP/SAF:PD,PP:ASCBA Escape: GMFOV/SCBAE	Inh Abs Ing Con	Irrit eyes, nose, throat, skin; narco	Eye Skin Breath Swallow	Irr immed Water wash prompt Resp support Medical attention immed	Eyes, resp sys, skin
Clothing	Goggles	Repeat Reason prob Prompt wet N.R. Immed wet (flamm)	NIOSH/OSHA 625 ppm SA:CF/PAPROV ^E 1000 ppm CCRFOV 1250 ppm GMFOV/SCBAF/SAF 5000 ppm: SAF:PD,PP § SCBAF:PD,PP/SAF:PD,PP:ASCBA Escape: GMFOV/SCBAE	Inh Abs Ing Con	Irrit eyes, muc memb, head, narco, coma; derm	Eye Skin Breath Swallow.	Irr immed Water flush prompt Resp support Medical attention immed	Resp sys, eyes, skin, CNS
Clothing	Goggles	Repeat Reason prob Prompt wet N.R. Immed wet (flamm)	NIOSH/OSHA 1000 ppm PAPROV ^E /CCRFOV 7500 ppm SA:CF ^E 10,000 ppm: GMFOV/SCBAF/SAF § SCBAF:PD,PP/SAF:PD,PP:ASCBA Escape: GMFOV/SCBAE	Inh Ing Con	Irrit eyes, resp sys, skin; drow	Eye Skin Breath Swallow	Irr immed Soap wash prompt Resp support Medical attention immed	Skin, eyes, resp sys
Clothing	Goggles	Repeat Reason prob Prompt wet N.R. Immed wet (flamm)	NIOSH/OSHA 750 ppm: CCROV/SA/SCBA 1000 ppm: PAPROV/CCRFOV/PAPRTOV 1875 ppm: SA:CF 2000 ppm: GMFOV/SCBAF/SAF § SCBAF:PD,PP/SAF:PD,PP:ASCBA Escape: GMFOV/SCBAE	Inh Ing Con	Irrit eyes, nose	Eye Skin Breath Swallow.	Irr immed Soap wash prompt Resp support Medical attention immed	Eyes, resp sys

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL Fl.P, IP, Sp.Gr. (flammability)	VP, FRZ UEL, LEL		
2,4-D Cl ₂ C ₆ H ₃ OCH ₂ COOH 94-75-7 AG6825000	2,4-Dichlorophenoxyacetic acid, Dichlorophenoxyacetic acid	NIOSH/OSHA 10 mg/m ³	500 mg/m ³	White to yellow crystalline, odorless powder [herbicide]	MW: 221.0 BP: Decomposes Sol: 0.05% Fl.P: NA IP: ?	VP: Low MLT: 280°F UEL: NA LEL: NA	Strong oxidizers	Filter; Methanol; HPLC/UVD; III [#5001]
2765-55					Sp Gr(86°F), 1.57 Noncombustible Solid, but may be dissolved in flammable liquids			
DDT (C ₆ H ₄ Cl) ₂ CHCCl ₃ 50-29-3 KJ3325000	1,1,1-Trichloro-2,2- bis(p-chlorophenyl)ethane, p,p'-DDT; Dichlorodiphenyltrichloro- ethane	NIOSH Ca See Appendix A 0.5 mg/m ³	Ca [N.E.]	Colorless crystals or off-white powder with a slight aromatic odor. [pesticide]	MW: 354.5 BP: 230°F (Decomposes) Sol: Insoluble Fl.P: 162-171°F IP: ?	VP: Low MLT: 227°F UEL: ? LEL: ?	Strong oxidizers, alkalis	Filter; Isooctane; GC/ECD; II(3) [#S274]
2761-55					Sp Gr: 0.99 Combustible Solid			
Decaborane B ₁₀ H ₁₄ 17702-41-9 HD1400000	Boron hydride, Decaboron tetradecahydride	NIOSH/OSHA 0.3 mg/m ³ (0.05 ppm) ST: 0.9 mg/m ³ (0.15 ppm) [skin]	100 mg/m ³	Colorless to white crystalline solid with an intense, bitter, chocolate- like odor	MW: 122.2 BP: 415°F Sol: Slight Fl.P: 176°F IP: 9.88 eV	VP(77°F): 0.05 mm MLT: 211°F UEL: ? LEL: ?	Oxidizers, water, halogenated materials (especially carbon tetrachloride) [Note: May sponta- neously ignite on exposure to air. Decomposes slowly in hot water.]	None available
1868-34					Sp Gr(77°F): 0.94 Combustible Solid			
Demeton C ₈ H ₁₉ O ₃ PS ₂ 8065-48-3 TF3150000	O-O-Diethyl-(O and S)-2- (ethylthio)ethyl phosphoro- thioate mixture, Systox™	NIOSH/OSHA 0.1 mg/m ³ [skin]	20 mg/m ³	Amber, oily liquid with a sulfur-like odor [insecticide]	MW: 258.3 BP: Decomposes Sol: 0.01% Fl.P: 113°F IP: ?	VP: 0.0003 mm FRZ: <-13°F UEL: ? LEL: ?	Strong oxidizers, alkalis, water	Filter/ XAD-2, Toluene; GC/FPD; III [#5514]
1 ppm = 10.74 mg/m ³								
Sp.Gr: 1.12 Class II Combustible Liquid								

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Health hazards					
			Route	Symptoms (See Table 5)		First aid (See Table 6)		Target organs (See Table 5)
Clothing:	Repeat	NIOSH/OSHA	Inh	Weak, stupor,		Eye:	Irr immed	
Goggles:	Reason prob	100 mg/m ³ ; CCROVDMFu/SA/SCBA	Abs	hyporeflexia, musc twitch,		Skin:	Soap wash prompt	
Wash:	Prompt contam	250 mg/m ³ ; PAPROVDMFu/SA:CF	Ing	convuls, derm,		Breath:	Resp support	
Change:	After work if reason prob contam	500 mg/m ³ ; CCRFOVHiE/GMFOVHiE/	Con	in animals liver, kidney		Swallow:	Medical attention	
Remove	Prompt non-imperv contam	PAPRTOVHiE/SCBAF/SAF/SAT CF		damage			immed	
		§. SCBAF:PD,PP/SAF,PD,PP:ASCBA						
		Escape: GMFOVHiE/SCBAE						
Clothing:	Repeat	NIOSH	Inh	Pares tongue, lips, face,		Eye:	Irr immed	
Goggles:	Reason prob	Y: SCBAF,PD,PP/SAF:PD,PP:ASCBA	Abs	tremor; appre, dizz, conf.		Skin:	Soap wash prompt	
Wash:	Prompt contam	Escape GMFOVHiE/SCBAE	Ing	mal, head, ftg, convuls,		Breath:	Resp support	
Change:	After work if reason prob contam		Con	paresis hands; vomit, irrit		Swallow:	Medical attention	
Remove:	Prompt non-imperv contam			eyes, skin, [card]			immed	
Clothing:	Reason prob	NIOSH/OSHA	Inh	Dizz, head, nau, li-head,		Eye:	Irr immed	
Goggles:	Reason prob	3 mg/m ³ ; SA/SCBA	Abs	drow, inco, local musc		Skin:	Soap wash immed	
Wash:	Immed contam/daily	7.5 mg/m ³ ; SA:CF	Ing	spasm, tremor, convuls,		Breath:	Resp support	
Change:	After work if reason prob contam	15 mg/m ³ ; SCBAF/SAF/SAT CF	Con	ftg;		Swallow:	Medical attention	
Remove:	Immed non-imperv contam	100 mg/m ³ ; SAF PD,PP		in animals dysp, weak,			immed	
Provide:	Eyewash, quick drench	§. SCBAF:PD,PP/SAF:PD,PP:ASCBA		liver, kidney damage				
		Escape: GMFOVHiE/SCBAE						
Clothing:	Any poss	NIOSH/OSHA	Inh	Miosis, ache eyes, rhin,		Eye:	Irr immed	
Goggles:	Any poss	1 mg/m ³ ; SA/SCBA	Abs	head; tight chest, wheez,		Skin:	Soap wash immed	
Wash:	Immed contam	2.5 mg/m ³ ; SA:CF	Ing	lar spasm, salv, cyan; anor		Breath:	Resp support	
Change:	N.R.	5 mg/m ³ ; SCBAF/SAF/SAT:CF	Con	nau, vomit, abdom		Swallow:	Medical attention	
Remove:	Immed non-imperv contam	20 mg/m ³ ; SA:PD,PP		cramp, diarr; local sweat;			immed	
Provide:	Eyewash, quick drench	§. SCBAF:PD,PP/SAF PD,PP:ASCBA		musc fasc, weak, para; gidd,				
		Escape: GMFOVHiE/SCBAE		conf, ataxia; convuls, coma;				
				low BP, card irregularities,				
				irrit eyes, skin				

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL Fl.P, IP, Sp.Gr, flammability	VP, FRZ UEL, LEL		
Diacetone alcohol CH ₃ COCH ₂ C(CH ₃) ₂ OH 123-42-2 SA9100000	Diacetone, 4-Hydroxy-4-methyl-2- pentanone. 2-Methyl-2-pentanol-4-one	NIOSH/OSHA 50 ppm (240 mg/m ³)	2100 ppm	Colorless liquid with a faint, minty odor.	MW 116.2 BP 334°F Sol. Miscible Fl.P. 125°F IP. ?	VP 1 mm FRZ -47°F UEL. 6.9% LEL. 1.8%	Strong oxidizers, strong alkalis	Char; 2-Propanol/ CS ₂ , GC/FID; III [#1402, Alcohols III]
1148 26	1 ppm = 4.83 mg/m ³				Sp Gr 0.94 Class II Combustible Liquid			
Diazomethane CH ₂ N ₂ 334-88-3 PA7000000	Azimethylene, Azomethylene, Diazirine, Diazomethane	NIOSH/OSHA 0.2 ppm (0.4 mg/m ³)	2 ppm	Yellow gas with a musty odor [Note: Shipped as a liquefied compressed gas.]	MW 42.1 BP. -9°F Sol. Reacts Fl.P. NA (Gas) IP 9.00 eV	VP >1 atm FRZ. -229°F UEL. ? LEL. ?	Alkali metals water, drying agents such as calcium arsenate [Note. May explode violently on heating, exposure to sunlight, or contact with rough edges such as ground glass.]	XAD-2*; CS ₂ , GC/FID, III [#2515]
	1 ppm = 1.75 mg/m ³				Flammable Gas [EXPLOSIVE!]			
Diborane B ₂ H ₆ 19287-45-7 HQ9275000	Boroethane, Boron hydride, Diboron hexahydride	NIOSH/OSHA 0.1 ppm (0.1 mg/m ³)	40 ppm	Colorless gas with a repulsive, sweet odor [Note: Usually shipped in pressurized cylinders.]	MW 27.7 BP. -135°F Sol. Reacts Fl.P. NA (Gas) IP 11.38 eV	VP. >1 atm FRZ. -265°F UEL. 88% LEL. 0.8%	Water, halogenated compounds, aluminum, lithium, oxidized surfaces, acids [Note: Will ignite spontaneously in moist air at room temperature. Reacts with water to form hydrogen & boric acid.]	Filter/ Char*; H ₂ O ₂ , PES, III [#6006]
1911 18	1 ppm = 1.15 mg/m ³				Flammable Gas			
1,2-Dibromo-3-chloro- propane CH ₂ BrCHBrCH ₂ Cl 96-12-8 TX8750000	1-Chloro-2,3-dibromo- propane; DBCP, Dibromochloropropane	NIOSH Ca See Appendix A OSHA [1910.1044] 0.001 ppm	Ca	Dense yellow or amber liquid with a pungent odor at high concentra- tions [Note: A solid below 43°F.] [pesticide]	MW 236.4 BP. 384°F Sol(70°F). 0.1% Fl.P.(oc). 170°F IP. ?	VP. 0.8 mm FRZ. 43°F UEL. ? LEL. ?	Chemically-active metals such as aluminum, magnesium & tin alloys [Note: Corrosive to metals.]	None available
2872 58	1 ppm = 9.63 mg/m ³				Sp.Gr. 2.05 Class IIIA Combustible Liquid			

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Health hazards			
			Route	Symptoms (See Table 5)	First aid (See Table 6)	Target organs (See Table 5)
Clothing:	Repeat	NIOSH/OSHA	Inh	Irrit eyes, nose, throat,	Eye.	Irr immed
Goggles:	Reason prob	1000 ppm: CCRFOV/PAPROV ^c	Ing	skin, corneal tissue	Skin:	Water flush prompt
Wash:	Prompt wet	1250 ppm: SA,CF ^f	Con	damage, narco	Breath.	Resp support
Change:	N.R	2100 ppm: GMFOV/SCBAF/SAF			Swallow.	Medical attention
Remove:	Prompt non-imperv wet	§ SCBAF PD,PP/SAF:PD,PP:ASCBA Escape: GMFOV/SCBAE				immed
Clothing	Prevent contam or freezing	NIOSH/OSHA	Inh	Cough, short breath;	Eye:	Irr immed
Goggles,	Any poss	2 ppm: SA ^a /SCBA ^b	Ing	head, flush skin, fever,	Skin:	Water flush immed
Wash:	Prompt contam	§ SCBAF,PD,PP/SAF:PD,PP:ASCBA	Con	chest pain, pulm edema, pneumitis; irrit	Breath:	Resp support
Change:	N.R	Escape: GMFOV/SCBAE		eyes; asthma, ftg	Swallow.	Medical attention
Remove:	Immed wet (flamm)					immed
Provide:	Eyewash					
Clothing:	N.R	NIOSH/OSHA	Inh	Tight chest, precordial	Eye:	Irr immed
Goggles:	N.R	1 ppm: SA/SCBA	Con	pain, short breath, non-	Breath:	Resp support
Wash:	N.R	2.5 ppm: SA CF		productive cough, nau;		
Change:	N.R	5 ppm: SCBAF/SAF/SAT CF		head, li-head, verti,		
Remove:	N.R	40 ppm: SA PD,PP		chills, fever, ftg, weak,		
		§ SCBAF·PD,PP/SAF·PD,PP:ASCBA		tremor, musc fasc;		
		Escape: GMFS/SCBAE		in animals: liver, kidney		
				damage; pulm edema;		
				hemorrh		
Clothing:	Any poss	NIOSH	Inh	Drow; nau, vomit;	Eye:	Irr immed
Goggles:	Any poss	Y: SCBAF·PD,PP/SAF,PD,PP:ASCBA	Abs	irrit eyes, nose, throat,	Skin:	Soap wash immed
Wash:	Immed contam/daily	Escape: GMFOVH:E/SCBAE	Con	skin; pulm edema, [carc]	Breath:	Resp support
Change:	After work if any poss contam				Swallow.	Medical attention
Remove:	Immed contam					immed

1,2-Dibromo-3-chloropropane

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL Fl.P, IP, Sp.Gr, flammability	VP, FRZ UEL, LEL		
Dibutyl phosphate $(C_4H_9O)_2(OH)PO$ 107-66-4 TB9605000	Dibutyl acid o-phosphate, di-n-Butyl hydrogen phosphate, Dibutyl phosphoric acid	NIOSH/OSHA 1 ppm (5 mg/m ³) ST 2 ppm (10 mg/m ³)	125 ppm	Pale amber, odorless liquid	MW: 210.2 BP: 212°F (Decomposes) Sol: Insoluble Fl.P: ? IP: ?	VP: 1 mm (approx) FRZ: ? UEL: ? LEL: ?	Strong oxidizers	Filter, CH ₃ CN; GC/FPD, III [#5017]
		1 ppm = 8.74 mg/m ³			Sp Gr: 1.06 Combustible Liquid			
Dibutylphthalate $C_6H_4(COOC_2H_5)_2$ 84-74-2 TI0875000	DBP: Dibutyl 1,2-benzene- dicarboxylate, Di-n-butyl phthalate	NIOSH/OSHA 5 mg/m ³	9300 mg/m ³	Colorless to faint yellow, oily liquid with a slight, aromatic odor	MW: 278.3 BP: 644°F Sol(77°F) 0.5% Fl.P: 315°F IP: ?	VP <0.01 mm FRZ: -31°F UEL: ? LEL(456°F): 0.5%	Nitrates; strong oxidizers, alkalis & acids, liquid chlorine	Filter CS ₂ ; GC/FID, III [#5020]
		1 ppm = 11.57 mg/m ³			Sp Gr: 1.05 Class IIIB Combustible Liquid			
o Dichlorobenzene $C_6H_4Cl_2$ 95-50-1 CZ4500000	o-DCB, 1,2-Dichlorobenzene, ortho Dichlorobenzene; o Dichlorobenzol	NIOSH/OSHA C 50 ppm (300 mg/m ³)	1000 ppm	Colorless to pale- yellow liquid with a pleasant, aromatic odor. [herbicide]	MW: 147.0 BP: 357°F Sol: 0.01% Fl.P: 151°F IP: 9.06 eV	VP: 1 mm FRZ: 1°F UEL: 9.2% LEL: 2.2%	Strong oxidizers, aluminum, acids, acid fumes, chlorides	Char, CS ₂ , GC/FID, III [#1003, Halogen- ated Hydro- carbons]
1591 58	1 ppm = 6.11 mg/m ³				Sp Gr: 1.30 Class IIIA Combustible Liquid			
p-Dichlorobenzene $C_6H_4Cl_2$ 106-46-7 CZ4550000	p-DCB, 1,4-Dichlorobenzene, para-Dichlorobenzene, Dichlorocide	NIOSH Ca See Appendix A OSHA 75 ppm (450 mg/m ³) ST 110 ppm (675 mg/m ³)	Ca [1000 ppm]	Colorless or white crystalline solid with a mothball- like odor [insecticide]	MW: 147.0 BP: 345°F Sol: 0.008% Fl.P: 150°F IP: 8.98 eV	VP(77°F). 0.4 mm MLT: 128°F UEL: ? LEL: ?	Oxidizers	Char; CS ₂ , GC/FID; III [#1003, Halogen- ated Hydro- carbons]
1592 58					Sp Gr: 1.25 Combustible Solid, but may take some effort to ignite			

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Health hazards					
			Route	Symptoms (See Table 5)	First aid (See Table 6)		Target organs (See Table 5)	
Clothing:	Reason prob	NIOSH/OSHA	Inh	Irrit resp sys, skin,	Eye	Irr immmed	Resp sys, skin	
Goggles:	Reason prob	10 ppm SA/SCBA	Ing	head	Skin	Soap wash prompt		
Wash:	Prompt contam	25 ppm SA CF	Con		Breath	Resp support		
Change:	N R	50 ppm: SCBAF/SAF/SAT CF			Swallow	Medical attention		
Remove:	Prompt non-imperv	125 ppm: SA:PD,PP				immed		
Provide:	contam	§ SCBAF PD,PP/SAF PD,PP,ASCBA						
	Quick drench	Escape: GMFOVHIE/SCBAE						
Clothing:	N R	NIOSH/OSHA	Inh	Irrit upper resp tract,	Eye	Irr immmed	Resp sys, GI	
Goggles:	Reason prob	50 mg/m ³ , DMF	Ing	stomach	Skin	Wash regularly	tract	
Wash:	N.R.	125 mg/m ³ ; PAPRDM ^e /SA CF ^e	Con		Breath:	Resp support		
Change:	N.R.	250 mg/m ³ ; HiEF/SCBAF/SAF			Swallow	Medical attention		
Remove:	N R	9300 mg/m ³ SAF:PD,PP				immed		
		§ SCBAF:PD,PP/SAF PD,PP,ASCBA						
		Escape: HiEF/SCBAE						
Clothing:	Repeat	NIOSH/OSHA	Inh	Irrit nose, eyes, liver,	Eye	Irr immmed	Liver, kidneys,	
Goggles:	Reason prob	1000 ppm PAPROV ^f /CCRFOV	Abs	kidney damage, skin	Skin	Soap wash prompt	skin, eyes	
Wash:	Prompt contam	§ SCBAF PD,PP/SAF PD,PP,ASCBA	Ing	blister	Breath:	Resp support		
Change:	N.R.	Escape: GMFOV/SCBAE	Con		Swallow	Medical attention		
Remove:	Prompt non-imperv					immed		
	contam							
Clothing:	Repeat	NIOSH	Inh	Head, eye irrit, swell	Eye	Irr immmed	Liver, resp sys,	
Goggles:	Reason prob	Y SCBAF PD,PP/SAF PD PP ASCBA	Ing	periorb; profuse rhinitis,	Skin	Soap wash	eyes, kidneys.	
Wash:	Daily (reason prob)	Escape: GMFOV/SCBAE	Con	anor, nau, vomit, low-wgt,	Breath:	Resp support	skin	
Change:	N R			jaun, cirr, [carc]	Swallow	Medical attention		
Remove:	N.R.			in animals: liver, kidney		immed		
				damage				

p-Dichlorobenzene

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL FI.P, IP, Sp.Gr, flammability	VP, FRZ UEL, LEL		
3,3'-Dichlorobenzidine (and its salts) C ₆ H ₃ CINH ₂ C ₆ H ₃ CINH ₂ 91-94-1 DD0525000	4,4'-Diamino-3,3'-dichloro- biphenyl; Dichlorobenzidine base, o,o'-Dichlorobenzidine; 3,3'-Dichlorobiphenyl-4,4'- diamine; 3,3'-Dichloro-4,4'-biphenyl- diamine; 3,3'-Dichloro-4,4'-diamino- biphenyl	NIOSH Ca See Appendix A	Ca	Gray to purple crystalline solid	MW: 253.1 BP: 788°F Sol. Almost Insoluble FI.P. ? IP. ?	VP. ? MLT. 271°F UEL. ? LEL. ?	None reported	Filter/ Si gel, Reagent, HPLC/UVD, III [#5509]
Dichlorodifluoromethane CCl ₂ F ₂ 75-71-8 PA8200000	Difluorodichloromethane, Fluorocarbon 12, Freon® 12, Halon® 122, Propellant 12, Refrigerant 12	NIOSH/OSHA 1000 ppm (4950 mg/m ³)	50,000 ppm	Colorless gas with an ether-like odor at extremely high concentrations [Note. Shipped as a liquefied compressed gas.]	MW: 120.9 BP: -22°F Sol(77°F): 0.03% FI.P. NA IP: 11.75 eV	VP. >1 atm FRZ. -252°F UEL: NA LEL: NA	Chemically-active metals such as sodium, potassium, calcium, powdered aluminum, zinc & magnesium	Char(2); CH ₂ Cl ₂ ; GC/FID; III [#1018]
1028 12	1 ppm = 5.03 mg/m ³				Nontoxic Gas			
1,3-Dichloro 5,5 dimethylhydantoin C ₅ H ₆ Cl ₂ N ₂ O ₂ 118-52-5 MU0700000	Dactin. DDH. Halane	NIOSH/OSHA 0.2 mg/m ³ ST 0.4 mg/m ³	Unknown	White powder with a chlorine-like odor.	MW: 197.0 BP. ? Sol. 0.2% FI.P. 346°F IP. ?	VP. ? MLT: 270°F UEL. ? LEL. ?	Water, strong acids, easily oxidized materials such as ammonia salts & sulfides	None available
					Sp Gr: 1.5 Combustible Solid			
1,1-Dichloroethane CHCl ₂ CH ₃ 75-34-3 KI0175000	Asymmetrical dichloroethane, Ethyldene chloride, 1,1-Ethyldene dichloride	NIOSH/OSHA 100 ppm (400 mg/m ³)	4000 ppm	Colorless, oily liquid with a chloroform-like odor	MW: 99.0 BP: 135°F Sol: 0.6% FI.P.(oc): 22°F IP: 11.06 eV	VP(77°F): 230 mm FRZ. -143°F UEL. ? LEL: 5.6%	Strong oxidizers, strong caustics	Char, CS ₂ ; GC/FID, III [#1003, Halo- genated Hydro- carbons]
2362 27	1 ppm = 4.12 mg/m ³				Sp Gr: 1.18 Class IB Flammable Liquid			

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Health hazards				
			Route	Symptoms (See Table 5)	First aid (See Table 6)	Target organs (See Table 5)	
Clothing	Any poss	NIOSH	Inh	Allergic skin reaction,	Irr immed (15 min)	Bladder, liver,	
Goggles	Any poss	Y SCBAF,PD,PP/SAF:PD,PP:ASCBA	Abs	sens, derm; head, dizz,	Soap wash immed	lung, skin, GI	
Wash	Immed contam/daily	Escape HiEF/SCBAE	Ing	caustic burns; frequent	Resp support	tract	
Change	After work if any poss		Con	urination, dysuria, hema;	Medical attention		
Remove	contam			GI upsets; upper resp	immed		
Provide	Immed contam			infection, [carc]			
	Eyewash, quick drench						
Clothing	Prevent wet or freezing	NIOSH/OSHA	Inh	Dizz, tremors,	Irr immed	CVS, PNS	
Goggles	Reason prob	10,000 ppm: SA/SCBA	Con	unconsciousness, card	Water flush immed		
Wash	N R.	25,000 ppm: SA/CF		arry, card arrest	Resp support		
Change	N R.	50,000 ppm: SCBAF/SAF					
Remove	Immed wet (flamm)	§: SCBAF·PD,PP/SAF·PD,PP:ASCBA					
		Escape GMFOV/SCBAE					
Clothing	Repeat	NIOSH/OSHA	Inh	Irrit eyes, muc memb,	Irr immed	Resp sys, eyes	
Goggles	Any poss	2 mg/m ³ : SA/SCBA	Ing	resp sys	Soap wash prompt		
Wash:	Prompt contam	5 mg/m ³ : SA,CF/SCBAF/SAF	Con		Resp support		
Change:	After work if reason	§: SCBAF PD,PP/SAF·PD,PP ASCBA			Medical attention		
Remove	prob contam	Escape GMFSHIE/SCBAE			immed		
Provide	Prompt non-imperv						
	contam						
	Eyewash						
Clothing	Repeat	NIOSH/OSHA	Inh	CNS depress, skin irrit,	Irr immed	Skin, liver,	
Goggles	Reason prob	1000 ppm: SA/SCBA	Ing	liver, kidney damage	Soap flush prompt	kidneys	
Wash:	Immed wet	2500 ppm SA CF	Con		Resp support		
Change:	N R.	4000 ppm: SCBAF/SAF			Medical attention		
Remove	Immed wet (flamm)	§: SCBAF PD,PP/SAF·PD,PP:ASCBA			immed		
		Escape GMFOV/SCBAE					

1,1-Dichloroethane

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL Fl.P, IP, Sp.Gr, flammability	VP, FRZ UEL, LEL		
1,2-Dichloroethylene CICH=CHCl 540-59-0 KV9360000	Acetylene dichloride, cis-Acetylene dichloride, trans-Acetylene dichloride, sym-Dichloroethylene	NIOSH/OSHA 200 ppm (790 mg/m ³)	4000 ppm	Colorless liquid (usually a mixture of the cis & trans isomers) with a slightly acidic, chloroform-like odor	MW: 97.0 BP: 118-140°F Sol: 0.4% Fl.P: 36°F IP: 9.65 eV	VP: 180-264 mm FRZ: -57 to -115°F UEL: 12.8% LEL: 5.6%	Strong oxidizers, strong alkalis, potassium hydroxide, copper	Char; CS ₂ , GC/FID; III [#1003, Halogenated Hydrocarbons]
1150 29	1 ppm = 4.03 mg/m ³				Sp.Gr(77°F): 1.27 Class IB Flammable Liquid			
Dichloroethyl ether (CICH ₂ CH ₂) ₂ O 111-44-4 KN0875000	bis(2-Chloroethyl)ether; 2,2'-Dichlorodiethyl ether See Appendix A 5 ppm (30 mg/m ³) ST 10 ppm (60 mg/m ³) [skin] OSHA 5 ppm (30 mg/m ³) ST 10 ppm (60 mg/m ³) [skin]	NIOSH Ca See Appendix A 5 ppm (30 mg/m ³) ST 10 ppm (60 mg/m ³) [skin] OSHA 5 ppm (30 mg/m ³) ST 10 ppm (60 mg/m ³) [skin]	Ca [250 ppm]	Colorless liquid with a chlorinated solvent-like odor	MW: 143.0 BP: 352°F Sol: 1% Fl.P: 131°F IP: ?	VP: 0.7 mm FRZ: -58°F UEL: ? LEL: 2.7%	Strong oxidizers [Note. Decomposes in presence of moisture to form hydrochloric acid.]	Char, CS ₂ , GC/FID III [#1004]
1916 57	1 ppm = 5.94 mg/m ³				Sp.Gr: 1.22 Class IIIA Combustible Liquid			
Dichloromonofluoromethane CHCl ₂ F 75-43-4 PA8400000	Dichlorofluoromethane, Fluorodichloromethane, Freon® 21, Halon® 112, Refrigerant 21	NIOSH/OSHA 10 ppm (40 mg/m ³)	50,000 ppm	Colorless gas with a slight, ether- like odor. [Note. A liquid below 48°F Shipped as a liquefied compressed gas.]	MW: 102.9 BP: 48°F Sol(86°F): 0.7% Fl.P. NA IP: 12.39 eV	VP: >1 atm FRZ: -211°F UEL: NA LEL: NA	Chemically-active metals such as sodium, potassium, calcium, powdered aluminum, zinc & magnesium, acid, acid fumes	Char(2); CS ₂ , GC/FID; III [#2516]
1029 12	1 ppm = 4.28 mg/m ³				Nonflammable Gas			
1,1-Dichloro-1-nitroethane CH ₃ CCl ₂ NO ₂ 594-72-9 KI1050000	Dichloronitroethane	NIOSH/OSHA 2 ppm (10 mg/m ³)	150 ppm	Colorless liquid with an unpleasant odor. [fumigant]	MW: 143.9 BP: 255°F Sol: 0.3% Fl.P: 136°F IP: ?	VP: 15 mm FRZ: ? UEL: ? LEL: ?	Strong oxidizers [Note. Corrosive to iron in presence of moisture.]	Char(pet); CS ₂ , GC/FID; III [#1601]
2650 57	1 ppm = 5.98 mg/m ³				Sp Gr: 1.43 Class II Combustible Liquid			

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Health hazards				
			Route	Symptoms (See Table 5)		First aid (See Table 6)	
Clothing:	Repeat	NIOSH/OSHA	Inh	Irrit eyes, resp sys; CNS	Eye:	Irr immed	Resp sys, eyes,
Goggles:	Reason prob	1000 ppm: PAPROV ^E /CCRFOV	Ing	depres	Skin:	Soap wash prompt	CNS
Wash:	Prompt wet	4000 ppm: SA,CF/GMFOV/SCBAF/SAF	Con		Breath:	Resp support	
Change:	N.R.	§: SCBAF:PD,PP/SAF:PD,PP:ASCBA			Swallow	Medical attention	
Remove	Immed wet (flamm)	Escape: GMFOV/SCBAE				immed	
Clothing:	Reason prob	NIOSH	Inh	Lac; irrit nose, throat,	Eye:	Irr immed	Resp sys, skin,
Goggles:	Reason prob	¥: SCBAF:PD,PP/SAF:PD,PP:ASCBA	Abs	cough; nau, vomit, [carc];	Skin:	Soap wash	eyes
Wash:	Immed contam	Escape: GMFOV/SCBAE	Ing	in animals: pulm irrit,	Breath:	Resp support	
Change:	N.R.		Con	edema; liver damage	Swallow	Medical attention	
Remove:	Immed non-imperv contam					immed	
Provide:	Quick drench						
Clothing:	Any poss wet	NIOSH/OSHA	Inh	Asphy, card arrhy.	Eye:	Irr immed	Resp sys. CVS
Goggles:	Reason prob	100 ppm: SA/SCBA	Ing	card arrest	Skin:	Water flush immed	
Wash:	N.R.	250 ppm: SA:CF	Con		Breath:	Resp support	
Change:	N.R.	500 ppm SCBAF/SAF			Swallow:	Medical attention	
Remove	Immed wet	10,000 ppm: SA:PD,PP				immed	
		20,000 ppm: SAF PD,PP					
		§: SCBAF:PD,PP/SAF PD,PP:ASCBA					
		Escape: GMFOV/SCBAE					
Clothing:	Repeat	NIOSH/OSHA	Inh	In animals: irrit eyes,	Eye:	Irr immed	Lungs
Goggles:	Reason prob	20 ppm SA/SCBA	Ing	skin, liver, heart, kidney	Skin:	Soap wash immed	
Wash:	Prompt contam	50 ppm: SA:CF	Con	damage; pulm edema, hemorrh	Breath:	Resp support	
Change:	N.R.	100 ppm SCBAF/SAF			Swallow	Medical attention	
Remove:	Prompt non-imperv contam	150 ppm: SAF:PD,PP				immed	
		§: SCBAF:PD,PP/SAF:PD,PP:ASCBA					
		Escape: GMFOV/SCBAE					

1,1-Dichloro-1-nitroethane

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL Fl.P, IP, Sp.Gr. flammability	VP, FRZ UEL, LEL		
Dichlorotetrafluoro- ethane CClF ₂ CClF ₂ 76-14-2 KI1101000	1,2-Dichlorotetra- fluoroethane; Freon® 114; Halon® 242; Refrigerant 114 1958 12	NIOSH/OSHA 1000 ppm (7000 mg/m ³) 1 ppm = 7 10 mg/m ³	50,000 ppm	Colorless gas with a faint, ether- like odor at high concentrations. [Note: A liquid below 38°F. Shipped as a liquefied compressed gas.]	MW: 170.9 BP: 38°F Sol: 0.01% Fl.P: NA IP: 12.20 eV	VP >1 atm FRZ -137°F UEL: NA LEL: NA	Chemically-active metals such as sodium, potassium, calcium, powdered aluminum, zinc & magnesium; acids; acid fumes	Char(2), CH ₂ Cl ₂ , GC/FID, III [#1018]
Dichlorvos (CH ₃ O) ₂ P(O)OCH=CCl ₂ 62-73-7 TC0350000	DDVP; 2,2-Dichlorovinyl dimethyl phosphate 2783 55	NIOSH/OSHA 1 mg/m ³ [skin] 1 ppm = 9 19 mg/m ³	200 mg/m ³	Colorless to amber liquid with a mild, chemical odor. [Note: Insecticide that may be absorbed on a dry carrier.]	MW: 221.0 BP: Decomposes Sol: 0.5% Fl.P(oc): >175°F IP: ?	VP(86°F) 0.01 mm FRZ: ? UEL: ? LEL: ?	Strong acids, strong alkalis [Note: Corrosive to iron & mild steel.]	XAD-2; Toluene; GC/FPD, II(5) [P&CAM #295]
Dieldrin C ₁₂ H ₈ Cl ₆ O 60-57-1 IO1750000	1,2,3,4,10,10-Hexachloro- 6,7-epoxy-1,4,4a,5,6,7,8, 8a-octahydro-1,4-endo- exo-5,8-dimethano- naphthalene, HEOD OSHA 0.25 mg/m ³ [skin]	NIOSH Ca See Appendix A 0.25 mg/m ³ [skin]	Ca [450 mg/m ³]	Colorless to light tan crystals with a mild, chemical odor. [insecticide]	MW: 380.9 BP: Decomposes Sol: 0.02% Fl.P: NA IP: ?	VP: Low MLT: 349°F UEL: NA LEL: NA	Strong oxidizers, active metals such as sodium, strong acids, phenols	Filter: Isooctane, GC/ECD, II(3) [#S283]
2761 55					Sp.Gr. 1.75			
Diethylamine (C ₂ H ₅) ₂ NH 109-89-7 HZ8750000	Diethamine; N,N-Diethylamine; N-Ethylethanamine 1154 68	NIOSH/OSHA 10 ppm (30 mg/m ³) ST 25 ppm (75 mg/m ³) 1 ppm = 3 04 mg/m ³	2000 ppm	Colorless liquid with a fishy, ammonia-like odor	MW: 73.1 BP: 132°F Sol: Miscible Fl.P.: -15°F IP: 8.01 eV	VP: 192 mm FRZ -58°F UEL: 10 1% LEL: 1.8%	Strong oxidizers, strong acids, cellulose nitrate	Si gel; H ₂ SO ₄ / Methanol; GC/FID; III [#2010]
					Sp.Gr. 0.71			
					Class IB Flammable Liquid			

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Health hazards					
			Route	Symptoms (See Table 5)		First aid (See Table 6)		Target organs (See Table 5)
Clothing	Any poss wet	NIOSH/OSHA	Inh	Irrit resp sys; asphy;	Eye:	Irr immed	Resp sys, CVS	
Goggles	Reason prob	10,000 ppm SA/SCBA	Abs	card arrhy, card arrest	Skin:	Water flush immed		
Wash	N R	25,000 ppm SA:CF	Ing		Breath:	Resp support		
Change	N R	50,000 ppm SCBAF/SAF	Con		Swallow:	Medical attention		
Remove	Immed wet	§ SCBAF:PD,PP/SAF:PD,PP ASCBA Escape: GMFOV/SCBAE				immed		
Clothing	Repeat	NIOSH/OSHA	Inh	Miosis, ache eyes, rhin;	Eye:	Irr immed	Resp sys, CVS,	
Goggles	Reason prob	10 mg/m ³ : SA/SCBA	Abs	head; tight chest, wheez,	Skin:	Soap wash immed		
Wash	Immed contam	25 mg/m ³ : SA:CF	Ing	lar spasm, salv; cyan,	Breath:	Resp support		
Change	N R	50 mg/m ³ : SCBAF/SAF/SAT.CF	Con	anor, nau, vomit, diarr,	Swallow:	Medical attention		
Remove	Immed non-imperv contam	200 mg/m ³ : SA:PD,PP §: SCBAF,PD,PP/SAF:PD,PP ASCBA Escape: GMFOVHIE/SCBAE		sweat; musc fasc, para,		immed		
				gidd, ataxia; convuls,				
				low BP, card irregularities,				
				irrit skin, eyes				
Clothing:	Any poss	NIOSH	Inh	Head, dizz; nau, vomit,	Eye:	Irr immed	CNS, liver,	
Goggles:	Any poss	¥: SCBAF:PD,PP/SAF PD,PP ASCBA	Abs	mal, sweat, myoclonic	Skin:	Soap wash immed		
Wash	Immed contam	Escape: GMFOVHIE/SCBAE	Ing	limb jerks; clonic, tonic	Breath:	Resp support		
Change	After work if any poss contam		Con	convuls, coma, [carc],	Swallow:	Medical attention		
Remove.	Immed non-imperv contam			in animals liver, kidney		immed		
Provide	Eyewash, quick drench			damage				
Clothing:	Any poss liq	NIOSH/OSHA	Inh	Eye, skin, resp sys irrit	Eye:	Irr immed	Resp sys, skin, eyes	
Goggles	Any poss >0.5%/ Reason prob 0.5%	250 ppm: SA:CF ^c /PAPRS ^c	Abs	Skin:	Water flush immed			
Wash	Immed contam liq	500 ppm: GMFS/SCBAF/SAF/CCRFS	Ing	Breath:	Resp support			
Change	N R	2000 ppm SAF:PD,PP	Con	Swallow:	Medical attention			
Remove	Immed wet (flamm)	§: SCBAF,PD,PP/SAF:PD,PP,ASCBA			immed			
Provide	Eyewash (>0.5%)/ Quick drench (liq)	Escape: GMFS/SCBAE						

Diethylamine

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL Fl.P, IP, Sp.Gr., flammability	VP, FRZ UEL, LEL		
2-Diethylaminoethanol (C ₂ H ₅) ₂ NCH ₂ CH ₂ OH 100-37-8 KK5075000	Diethylaminoethanol, 2-Diethylaminoethyl alcohol, N,N-Diethylethanolamine; Diethyl-(2-hydroxyethyl)- amine, 2-Hydroxytriethylamine	NIOSH/OSHA 10 ppm (50 mg/m ³) [skin]	500 ppm	Colorless liquid with a nauseating, ammonia-like odor.	MW: 117.2 BP: 325°F Sol: Miscible Fl.P: 126°F IP: ?	VP: 21 mm FRZ: -94°F UEL: ? LEL: ?	Strong oxidizers, strong acids	Si gel. Methanol, GC/FID; III [#2007, Amino- ethanol Com- pounds]
2686-29	1 ppm = 4.87 mg/m ³				Sp Gr: 0.89 Class II Combustible Liquid			
Diffluorodibromomethane CBr ₂ F ₂ 75-61-6 PA7525000	Dibromodifluoromethane, Freon® 12B2, Halon® 1202	NIOSH/OSHA 100 ppm (860 mg/m ³)	2500 ppm	Colorless, heavy liquid or gas (above 76°F) with a characteristic odor.	MW: 209.8 BP: 76°F Sol: Insoluble Fl.P: NA IP: 11.07 eV	VP: 620 mm FRZ: -231°F UEL: NA LEL: NA	Chemically-active metals such as sodium, potassium, calcium, powdered aluminum, zinc & magnesium	Char(2); 2-Propanol, GC/FID; III [#1012]
1941-58	1 ppm = 8.72 mg/m ³				Sp Gr(59°F): 2.29 Nonflammable Liquid			
Diglycidyl ether C ₆ H ₁₀ O ₃ 2238-07-5 KN2350000	Diallyl ether dioxide, DGE, 2-Epoxypropyl ether, bis (2,3-Epoxypropyl) ether; di(2,3-Epoxypropyl) ether	NIOSH Ca See Appendix A 0.1 ppm (0.5 mg/m ³) OSHA 0.1 ppm (0.5 mg/m ³) 1 ppm = 5.41 mg/m ³	Ca [25 ppm]	Colorless liquid with a strong, irritating odor.	MW: 130.2 BP: 500°F Sol: ? Fl.P: 147°F IP: ?	VP(77°F): 0.09 mm FRZ: ? UEL: ? LEL: ?	Strong oxidizers	None available
Diisobutyl ketone ((CH ₃) ₂ CHCH ₂) ₂ CO 108-83-8 MJ5775000	DIBK; sym-Diisopropyl acetone, 2,6-Dimethyl-4-heptanone, Isovalerone; Valeronone	NIOSH/OSHA 25 ppm (150 mg/m ³)	2000 ppm	Colorless liquid with a mild, sweet odor	MW: 142.3 BP: 334°F Sol: 0.05% Fl.P: 120°F IP: ?	VP: 2 mm FRZ: -43°F UEL(200°F): 7.1% LEL(200°F): 0.8%	Strong oxidizers	Char, CS ₂ , GC/FID; III [#1300, Ketones I]
1157-26	1 ppm = 5.92 mg/m ³				Sp.Gr. 0.81 Class II Combustible Liquid			

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Route	Symptoms (See Table 5)	Health hazards		First aid (See Table 6)	Target organs (See Table 5)
Clothing: Goggles: Wash. Change: Remove: Provide:	Reason prob Any poss >5%/Reason prob <5% Immed contam N R Immed non-imperv contam Eyewash (>5%), quick drench	NIOSH/OSHA 100 ppm CCROV/SA/SCBA 250 ppm SA CF/PAPROV 500 ppm CCRFOV/PAPRTOV/GMFOV/ SCBAF/SAF §: SCBAF:PD,PP/SAF,PD,PP:ASCBA Escape: GMFOV/SCBAE	Inh Abs Ing Con	Nau. vomit; irrit resp sys, skin, eyes	Eye: Skin: Breath: Swallow:	Irr immed Water flush immed Resp support Medical attention immed	Resp sys skin, eyes	
Clothing: Goggles: Wash: Change: Remove:	Repeat Reason prob N R N R Prompt non-imperv wet	NIOSH/OSHA 1000 ppm SA/SCBA 2500 ppm SA,CF/SCBAF/SAF §: SCBAF:PD,PP/SAF PD,PP:ASCBA Escape GMFOV/SCBAE	Inh Ing Con	In animals: irrit resp sys; CNS symptoms, liver damage	Eye: Skin: Breath: Swallow:	Irr immed Water flush immed Resp support Medical attention immed	Resp sys	
Clothing: Goggles: Wash: Change: Remove: Provide:	Any poss Reason prob Immed contam/daily After work if any poss contam Immed non-imperv contam Quick drench	NIOSH Y: SCBAF PD,PP/SAF,PD,PP:ASCBA Escape GMFOV/SCBAE	Inh Ing Con	Irr eyes, resp sys; skin burns, [carc]; in animals: hemato sys, lung, liver, kidney damage	Eye: Skin: Breath: Swallow:	Irr immed Soap wash immed Resp support Medical attention immed	Skin, eyes, resp sys	
Clothing: Goggles: Wash: Change: Remove:	Repeat N R Prompt wet N.R. Prompt non-imperv contam	NIOSH/OSHA 625 ppm SA CF/PAPROV 1000 ppm: CCRFOV 1250 ppm: GMFOV/SCBAF/SAF 2000 ppm: SAF:PD,PP §: SCBAF PD,PP/SAF PD,PP:ASCBA Escape: GMFOV/SCBAE	Inh Ing Con	Irr eyes, nose, throat; head, dizz. derm	Eye: Skin: Breath: Swallow:	Irr immed Soap wash prompt Resp support Medical attention immed	Resp sys, skin, eyes	

Diisobutyl ketone

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL Fl.P, IP, Sp.Gr., flammability	VP, FRZ UEL, LEL		
Diisopropylamine ((CH ₃) ₂ CH) ₂ NH 108-18-9 IM4025000	N-(1-Methylethyl)-2-propanamine	NIOSH/OSHA 5 ppm (20 mg/m ³) [skin]	1000 ppm	Colorless liquid with an ammonia- or fish-like odor.	MW: 101.2 BP: 183°F Sol: Slight Fl.P 20°F IP 7.73 eV	VP: 70 mm FRZ: -141°F UEL: 7.1% LEL 1.1%	Strong oxidizers, strong acids	Imp: KOH; GC/FID; II(4) [#S141]
1158 68	1 ppm = 4.21 mg/m ³				Sp.Gr. 0.72 Class IB Flammable Liquid			
Dimethyl acetamide CH ₃ CON(CH ₃) ₂ 127-19-5 AB7700000	N,N-Dimethyl acetamide; DMAC	NIOSH/OSHA 10 ppm (35 mg/m ³) [skin]	400 ppm	Colorless liquid with a weak ammonia- or fish-like odor	MW: 87.1 BP: 329°F Sol: Miscible Fl.P(oc): 158°F IP 8.81 eV	VP: 2 mm FRZ: -4°F UEL(320°F). 11.5% LEL(212°F). 1.8%	Carbon tetrachloride, other halogenated compounds when in contact with iron	Si gel; Methanol; GC/FID; III [#2004]
94	1 ppm = 3.62 mg/m ³				Sp.Gr: 0.94 Class IIIA Combustible Liquid			
Dimethylamine (CH ₃) ₂ NH 124-40-3 IP8750000	Dimethylamine (anhydrous), N-Methylmethanamine	NIOSH/OSHA 10 ppm (18 mg/m ³)	2000 ppm	Colorless gas with an ammonia- or fish-like odor. [Note: A liquid below 44°F Shipped as a liquefied compressed gas.]	MW: 45.1 BP 44°F Sol(140°F): 24% Fl.P. NA (Gas) 20°F(Liquid) IP. 8.24 eV	VP: >1 atm FRZ: -134°F UEL: 14.4% LEL: 2.8%	Strong oxidizers, chlorine, mercury, acraldehyde, fluoride, maleic anhydride	Si gel, H ₂ SO ₄ / Methanol; GC/FID; III [#2010]
1032 19	1 ppm = 1.87 mg/m ³				Sp.Gr: 0.67 (Liquid at 44°F) Class IA Flammable Liquid			
4-Dimethylaminoazobenzene C ₆ H ₅ NHC ₆ H ₄ N(CH ₃) ₂ 60-11-7 BX7350000	Butter yellow, DAB, p-Dimethylaminoazobenzene; N,N-Dimethyl-4-aminoazobenzene, Methyl yellow	NIOSH Ca See Appendix A OSHA [1910.1015] See Appendix B	Ca	Yellow, leaf-shaped crystals.	MW: 225.3 BP: Sublimes Sol: Insoluble Fl.P. ? IP: ?	VP: ? MLT: 237°F UEL: ? LEL: ?	None reported	G-chrom P: 2-Propanol, GC/FID; II(4) [P&CAM #284]

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Route	Symptoms (See Table 5)	Health hazards		Target organs (See Table 5)
					First aid (See Table 6)		
Clothing:	Repeat	NIOSH/OSHA	Inh	Nau, vomit; head; eye	Eye:	Irr immed	Resp sys, skin,
Goggles:	Any poss (soln >5%)	125 ppm: SA:CF ^c /PAPROV ^e	Abs	irrit, vis dist, pulm	Skin:	Water wash immed	eyes
Wash:	Prompt wet	250 ppm: CCRFOV/GMFOV/SCBAF/SAF	Ing	irrit	Breath:	Resp support	
Change:	N.R.	1000 ppm: SAF:PD,PP	Con		Swallow	Medical attention	
Remove:	Immed wet (flamm)	§: SCBAF:PD,PP/SAF:PD,PP ASCBA				immed	
Provide:	Eyewash (<5%)	Escape: GMFOV/SCBAE					
Clothing:	Any poss	NIOSH/OSHA	Inh	Jaun, liver damage;	Eye:	Irr immed	Liver, skin
Goggles:	Reason prob	100 ppm: SA:SCBA	Abs	depres, lethargy, halu,	Skin:	Water flush immed	
Wash:	Immed contam	250 ppm: SA:CF	Ing	delusions, irrit skin	Swallow.	Medical attention	
Change:	N.R.	400 ppm: SCBAF/SAF	Con			immed	
Remove:	Immed non-imperv contam	§: SCBAF:PD,PP/SAF:PD,PP ASCBA					
Provide:	Quick drench	Escape: GMFOV/SCBAE					
Clothing:	Any poss liq/Repeat soln	NIOSH/OSHA	Inh	Irrit nose, throat	Eye:	Irr immed	Resp sys, skin,
Goggles:	Any poss	250 ppm: SA:CF ^e	Ing	sneezing, cough, dysp,	Skin:	Water flush immed	eyes
Wash:	Immed contam liq/ Prompt contam soln	500 ppm: SCBAF/SAF	Con	pulm edema; conj; burns	Breath:	Resp support	
Change:		2000 ppm: SAF:PD,PP		skin, muc memb; derm	Swallow:	Medical attention	
Remove:	N.R.	§: SCBAF:PD,PP/SAF:PD,PP ASCBA				immed	
Provide:	Immed wet (flamm)	Escape: GMFS/SCBAE					
Clothing:	Any poss	NIOSH	Inh	Enlarged liver, hepatic	Eye:	Irr immed	Liver, skin,
Goggles:	Any poss	¥ SCBAF:PD,PP/SAF:PD,PP:ASCBA	Abs	and renal dysfunction;	Skin:	Soap wash immed	bladder
Wash:	Immed contam/daily	Escape: HiEF/SCBAE	Ing	contact derm; cough,	Breath:	Resp support	
Change:	After work if any poss contam		Con	wheez, difficulty	Swallow.	Medical attention	
Remove:	Immed contam			breath; bloody sputum,		immed	
Provide:	Eyewash, quick drench			bronchial secretions,			
				frequent urination, hema,			
				dysuria; [carc]			

4-Dimethylaminoazobenzene

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL Fl.P, IP, Sp.Gr, flammability	VP, FRZ UEL, LEL		
Dimethylaniline C ₆ H ₅ N(CH ₃) ₂ 121-69-7 BX4725000	N,N-Dimethylaniline; N,N-Dimethylbenzeneamine; N,N-Dimethylphenylamine	NIOSH/OSHA 5 ppm (25 mg/m ³) ST 10 ppm (50 mg/m ³) [skin]	100 ppm	Pale yellow, oily liquid with an amine-like odor. [Note: A solid below 36°F.]	MW: 121.2 BP: 378°F Sol: 2% Fl.P: 142°F IP: 7.14 eV	VP(85°F): 1 mm FRZ: 36°F UEL: ? LEL: ?	Strong oxidizers, strong acids, benzoyl peroxide	Si gel; Ethanol; GC/FID; III [#2002, Aromatic Amines]
2253 57	1 ppm = 5.04 mg/m ³				Sp.Gr: 0.96 Class IIIA Combustible Liquid			
Dimethyl-1,2-dibromo- 2,2-dichlorethyl phosphate C ₄ H ₇ O ₄ PBr ₂ Cl ₂ 300-76-5 TB9450000	Dibrom; 1,2-Dibromo-2,2-dichloro- ethyl dimethyl phosphate; Naled [(CH ₃ O) ₂ P(O)OC(Br)- HCBr(Cl ₂)]	NIOSH/OSHA 3 mg/m ³ [skin]	1800 mg/m ³	Colorless to white solid or straw- colored liquid (above 80°F) with a slightly pungent odor.	MW: 380.8 BP: Decomposes Sol: Insoluble Fl.P: NA IP: ?	VP: 0.0002 mm MLT: 80°F UEL: NA LEL: NA	Strong oxidizers, acids [Note: Corrosive to metals.]	None available
2783 55	1 ppm = 15.83 mg/m ³				Sp.Gr(77°F): 1.96 Noncombustible Solid			
Dimethylformamide HCON(CH ₃) ₂ 68-12-2 LQ2100000	Dimethyl formamide; N,N-Dimethylformamide; DMF	NIOSH/OSHA 10 ppm (30 mg/m ³) [skin]	3500 ppm	Colorless to pale- yellow liquid with a faint, amine- like odor.	MW: 73.1 BP: 307°F Sol: Miscible Fl.P: 136°F IP: 9.12 eV	VP(77°F): 4 mm FRZ: -78°F UEL: 15.2% LEL(212°F): 2.2%	Carbon tetrachloride; other halogenated compounds when in contact with iron; strong oxidizers; alkyl aluminum; inorganic nitrates	Si gel; Methanol; GC/FID; III [#2004]
2265 26	1 ppm = 3.04 mg/m ³				Sp.Gr: 0.95 Class IIIA Combustible Liquid			
1,1-Dimethylhydrazine (CH ₃) ₂ NNH ₂ 57-14-7 MV2450000	Dimazine, DMH, UDMH, Unsymmetrical dimethyl- hydrazine	NIOSH Ca See Appendix A C 0.06 ppm (0.15 mg/m ³) [2-hr] OSHA 0.5 ppm (1 mg/m ³) [skin]	Ca [50 ppm]	Colorless liquid with an ammonia- or fish-like odor.	MW: 60.1 BP: 147°F Sol: Miscible Fl.P: 5°F IP: 8.05 eV	VP(77°F): 157 mm FRZ: -72°F UEL: 95% LEL: 2%	Oxidizers, halogens, metallic mercury, fuming nitric acid, hydrogen peroxide [Note: May ignite SPONTANEOUSLY in contact with oxidizers.]	Bub; Reagent; Vis; II(3) [#S143]
1163 28	1 ppm = 2.50 mg/m ³				Sp.Gr: 0.79 Class IB Flammable Liquid			

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Health hazards			
			Route	Symptoms (See Table 5)	First aid (See Table 6)	Target organs (See Table 5)
Clothing:	Reason prob	NIOSH/OSHA	Inh	Anoxia symptoms: cyan,	Irr immed	Blood, kidneys,
Goggles:	Reason prob	50 ppm: SA/SCBA	Abs	weak, dizz, ataxia	Soap wash immed	liver, CVS
Wash:	Immed contam	100 ppm: SA-CF/SCBAF/SAF	Ing		Resp support	
Change:	N.R.	§ SCBAF:PD,PP/SAF:PD,PP:ASCBA	Con		Medical attention	
Remove:	Immed non-imperv contam	Escape: GMFOV/SCBAE			immed	
Provide:	Quick drench					
Clothing:	Reason prob	NIOSH/OSHA	Inh	Miosis, lac, head; tight	Irr immed	Resp sys, CNS,
Goggles:	Any poss	30 mg/m ³ : DMFu/SA/HIE/SCBA	Abs	chest, wheez, lar spasm,	Soap wash immed	CVS, skin, eyes,
Wash:	Immed contam	75 mg/m ³ : PAPRDMFu/SA:CF	Ing	salv, cyan, anor, nau.	Resp support	blood chol
Change:	After work if reason prob contam	150 mg/m ³ : HIE/PAPRTHIE/SAT:CF/ SCBAF/SAF	Con	vomit, abdom cramp, diarr;	Medical attention	
Remove:	Immed non-imperv contam	1800 mg/m ³ : SA:PD,PP		weak twitch para: gidd,	immed	
Provide:	Eyewash	§ SCBAF:PD,PP/SAF:PD,PP:ASCBA		ataxia, convuls, low BP,		
		Escape: HIEF/SCBAE		card irregularities irrit		
				skin, eyes		
Clothing:	Repeat	NIOSH/OSHA	Inh	Nau, vomit, colic; liver	Irr immed	Liver, kidneys,
Goggles:	Reason prob	100 ppm: SA*/SCBA*	Abs	damage, hepatomegaly;	Water flush prompt	CVS, skin
Wash:	Prompt contam	250 ppm: SA CF*	Ing	high BP; face flush; derm,	Resp support	
Change:	N.R.	500 ppm: SCBAF/SAF/SAT CF*	Con	in animals kidney, heart	Medical attention	
Remove:	Prompt non-imperv contam	3500 ppm: SAF:PD,PP		damage	immed	
		§: SCBAF:PD,PP/SAF:PD,PP:ASCBA				
		Escape: GMFOV/SCBAE				
Clothing:	Any poss	NIOSH	Inh	Irrit eyes, skin; choking,	Irr immed	CNS, liver, GI
Goggles:	Any poss	Y: SCBAF:PD,PP/SAF:PD,PP:ASCBA	Abs	chest pain, dysp; lethargy;	Water flush immed	tract blood,
Wash:	Immed contam	Escape: GMFS/SCBAE	Ing	nau; anoxia, convuls; liver	Resp support	resp sys, eyes,
Change:	N.R.		Con	inj; [carc]	Medical attention	skin
Remove:	Immed wet (flamm)				immed	
Provide:	Eyewash, quick drench					

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL Fl.P, IP, Sp.Gr, flammability	VP, FRZ UEL, LEL		
Dimethylphthalate C ₆ H ₄ (COOCH ₃) ₂ 131-11-3 T11575000	Dimethyl ester of 1,2-benzenedicarboxylic acid, DMP	NIOSH/OSHA 5 mg/m ³	9300 mg/m ³	Colorless, oily liquid with a slight, aromatic odor. [Note: A solid below 42°F.]	MW: 194.2 BP: 543°F Sol: 0.4% Fl.P: 295°F IP: 9.64 eV	VP: 0.01 mm FRZ: 42°F UEL: ? LEL(358°F) 0.9%	Nitrates; strong oxidizers, alkalis & acids	None available
		1 ppm = 8.07 mg/m ³			Sp Gr. 1.19	Class IIIB Combustible Liquid		
Dimethyl sulfate (CH ₃) ₂ SO ₄ 77-78-1 WS8225000	Dimethyl ester of sulfuric acid, Dimethylsulfate, Methyl sulfate	NIOSH Ca See Appendix A 0.1 ppm (0.5 mg/m ³) [skin] OSHA 0.1 ppm (0.5 mg/m ³) [skin]	Ca [10 ppm]	Colorless, oily liquid with a faint, onion-like odor	MW: 126.1 BP: 370°F (Decomposes) Sol(64°F): 3% Fl.P: 182°F IP: ?	VP: 0.1 mm FRZ: -25°F UEL: ? LEL: ?	Strong oxidizers, ammonia solutions [Note: Decomposes in water to sulfuric acid, corrosive to metals]	Porapak-P; Diethyl ether; GC/EConD, III; [#2524]
1595 57	1 ppm = 5.24 mg/m ³		ACGIH A2		Sp Gr: 1.33	Class IIIA Combustible Liquid		
Dinitrobenzene (all isomers) C ₆ H ₄ (NO ₂) ₂ o: 528-29-0 CZ7450000 m: 99-65-0 CZ7350000 p: 100-25-4 CZ7525000	o: ortho-Dinitrobenzene; 1,2-Dinitrobenzene m: meta-Dinitrobenzene; 1,3-Dinitrobenzene p: para-Nitrobenzene, 1,4-Dinitrobenzene	NIOSH/OSHA 1 mg/m ³ [skin]	200 mg/m ³	Pale white or yellow solids.	MW: 168.1 BP: 606/572/ 570°F Sol: 0.05/ 0.02/0.01% Fl.P: 302/ 302°F/? IP: 10.71/10.43/10.50 eV Sp.Gr(64°F): 1.57/1.58/1.63	VP: ?/?/? MLT: 244/ 192/343°F UEL: ?/?/? LEL: ?/?/?	Strong oxidizers, caustics, metals such as tin & zinc [Note: Prolonged exposure to fire and heat may result in an explosion due to SPONTANEOUS decomposition]	Filter/Bub; Methanol; HPLC/UVD; II(4); [#S214]
1597 56					Combustible Solids			
Dinitro-o-cresol CH ₃ C ₆ H ₂ OH(NO ₂) ₂ 534-52-1 GO9625000	4,6-Dinitro-o-cresol; 3,5-Dinitro-2-hydroxy-toluene, 4,6-Dinitro-2-methyl phenol, DN; DNOC	NIOSH/OSHA 0.2 mg/m ³ [skin]	5 mg/m ³	Yellow, odorless solid. [insecticide]	MW: 198.1 BP: 594°F Sol: 0.01% Fl.P: NA IP: ?	VP: 0.00005 mm MLT: 190°F UEL: NA LEL: NA	Strong oxidizers	Filter/Bub; 2-Propanol; HPLC/UVD; II(5); [#S166]
1598 53					Sp.Gr. 1.1 (estimated) Noncombustible Solid			

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Health hazards					
			Route	Symptoms (See Table 5)		First aid (See Table 6)		Target organs (See Table 5)
Clothing:	N.R.	NIOSH/OSHA	Inh	Irrit upper resp sys,	Eye:	Irr prompt	Resp sys, GI	
Goggles:	Reason prob	50 mg/m ³ , DMF	Ing	stomach pain	Skin:	Wash regularly	tract	
Wash:	N.R.	125 mg/m ³ , PAPRDM ^c /SA CF ^c	Con		Breath:	Resp support		
Change:	N.R.	250 mg/m ³ , HiEF/SCBAF/SAF			Swallow	Medical attention		
Remove:	N.R.	9300 mg/m ³ , SAF, PD, PP, §: SCBAF, PD, PP/SAF, PD, PP, ASCBA				immed		
		Escape: HiEF/SCBAE						
Clothing:	Any poss	NIOSH	Inh	Irrit eyes, nose; head,	Eye:	Irr immed	Eyes, resp sys,	
Goggles:	Any poss	¥: SCBAF:PD,PP/SAF:PD,PP:ASCBA	Abs	gidd; conj irrit, photo,	Skin:	Water flush immed	liver, kidneys,	
Wash:	Immed contam	Escape GMFS/SCBAE	Ing	periorb edema; dysphonia,	Breath:	Resp support	CNS, skin	
Change:	N.R.		Con	aphonia, dysphagia,	Swallow:	Medical attention		
Remove:	Immed non-imperv contam			productive cough; chest		immed		
Provide:	Eyewash, quick drench			pain; dysp, cyan;				
				vomit, diarr; dysuria;				
				analgesia, fever, ict;				
				album, hema, skin, eye				
				burns, delirium, [carc]				
Clothing:	Reason prob	NIOSH/OSHA	Inh	Anoxia, cyan; vis dist,	Eye:	Irr immed	Blood, liver,	
Goggles:	Reason prob	5 mg/m ³ , DM	Abs	central scotomas; bad	Skin:	Soap wash immed	CVS, eyes, CNS	
Wash:	Immed wet/Prompt contam	10 mg/m ³ , DMXSQ/SA/HiE/SCBA	Ing	taste, burning mouth, dry	Breath:	Resp support		
Change:	After work if reason	25 mg/m ³ , PAPRDM/SA:CF	Con	throat, thirst, yellowing	Swallow:	Medical attention		
Remove:	prob contam	50 mg/m ³ , HiEF/PAPRTHiE/SCBAF/		hair, eyes, skin, anemia,		immed		
	Immed non-imperv wet/	SAF/SAT:CF		liver damage				
	Prompt non-imperv	200 mg/m ³ , SA:PD, PP						
	contam	§: SCBAF:PD,PP/SAF:PD,PP:ASCBA						
Provide:	Quick drench	Escape: HiEF/SCBAE						
Clothing:	Reason prob	NIOSH/OSHA	Inh	Sense of well being,	Eye:	Irr immed	CVS, endocrine	
Goggles:	Reason prob	2 mg/m ³ , DMF	Abs	head, fever, lass, profuse	Skin:	Soap wash immed	sys, eyes	
Wash:	Prompt contam/daily	5 mg/m ³ , PAPRDM ^c /SA:CF ^c /HiEF/	Ing	sweat, excess thirst,	Breath:	Resp support		
Change:	After work if reason	SCBAF/SAF	Con	tacar, hyperpnea, cough,	Swallow:	Medical attention		
Remove:	prob contam	§: SCBAF:PD,PP/SAF:PD,PP:ASCBA		short breath, coma		immed		
	Prompt non-imperv	Escape: HiEF/SCBAE						
	contam							

Dinitro-o-cresol

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
					MW, BP, SOL Fl.P, IP, Sp.Gr., flammability	VP, FRZ UEL, LEL		
Dinitrotoluene C ₆ H ₃ CH ₃ (NO ₂) ₂ 25321-14-6 XT1300000	Dinitrotoluol, DNT, Methyldinitrobenzene 1600 56 (liquid) 2038 56 (solid)	NIOSH Ca See Appendix A 1.5 mg/m ³ [skin] OSHA 1.5 mg/m ³ [skin]	Ca [200 mg/m ³] ST 10 mg/m ³	Orange-yellow crystalline solid with a characteristic odor [Note. Often shipped molten.] Sp Gr: 1.32 Combustible Solid, but difficult to ignite.	MW: 182.2 BP: 572°F Sol: Insoluble Fl.P: 404°F IP: ?	VP: 1 mm MLT: 158°F UEL: ? LEL: ?	Strong oxidizers, caustics, metals such as tin & zinc [Note: Commercial grades will decompose at 482°F, with self-sustaining decomposition at 536°F.]	None available
Di-sec octyl phthalate C ₂₄ H ₃₈ O ₄ 117-81-7 T10350000	DEHP, DOP, bis-(2-Ethylhexyl) phthalate, di(2-Ethylhexyl) phthalate, Octyl phthalate [C ₆ H ₅ (COOCH ₂ CH ₂ (C ₂ H ₅)C ₄ H ₉) ₂] 1 ppm = 16.23 mg/m ³	NIOSH Ca See Appendix A 5 mg/m ³ ST 10 mg/m ³ OSHA 5 mg/m ³ ST 10 mg/m ³	Ca [Unknown]	Colorless, oily liquid with a slight odor.	MW: 390.5 BP: 727°F Sol. Insoluble Fl.P(oc): 420°F IP: ?	VP: <0.01 mm FRZ: -58°F UEL: ? LEL(474°F): 0.3%	Nitrates; strong oxidizers, acids & alkalis	Filter: CS ₂ , GC/FID, III [#5020, di(2-Ethyl- hexyl) phthalate]
100						Sp Gr: 0.99 Class IIIB Combustible Liquid		
Dioxane C ₄ H ₈ O ₂ 123-91-1 JG8225000	Diethylene dioxide, Diethylene ether, Dioxan, p-Dioxane, 1,4-Dioxane 1 ppm = 3.66 mg/m ³	NIOSH Ca See Appendix A C 1 ppm (3.6 mg/m ³) [30-min] OSHA 25 ppm (90 mg/m ³) [skin]	Ca [2000 ppm]	Colorless liquid or solid (below 53°F) with a mild ether-like odor.	MW: 88.1 BP: 214°F Sol. Miscible Fl.P: 55°F IP: 9.13 eV	VP: 29 mm FRZ: 53°F UEL: 22% LEL: 2.0%	Strong oxidizers, decaborane, triethylaluminum	Char, CS ₂ , GC/FID, III [#1602]
1165 26					Sp.Gr: 1.03 Class IB Flammable Liquid			
Diphenyl C ₆ H ₅ C ₆ H ₅ 92-52-4 DU8050000	Biphenyl, Phenyl benzene	NIOSH/OSHA 1 mg/m ³ (0.2 ppm)	300 mg/m ³	Colorless to pale-yellow solid with a pleasant, characteristic odor	MW: 154.2 BP: 489°F Sol: Insoluble Fl.P: 235°F IP: 7.95 eV	VP(160°F): 1 mm MLT: 156°F UEL(311°F): 5.8% LEL(232°F): 0.6%	Oxidizers	Tenax GC; CCl ₄ , GC/FID; III [#2530, Biphenyl]
					Sp Gr: 1.04 Combustible Solid			

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Route	Symptoms (See Table 5)	Health hazards		
					First aid (See Table 6)		Target organs (See Table 5)
Clothing:	Any poss molt/Repeat liq	NIOSH Y: SCBAF:PD,PP/SAF PD,PP:ASCBA Escape: GMFOVHIE/SCBAE	Inh Abs Ing Con	Anoxia, cyan, anemia, jaun; [carc]	Eye: Skin: Breath: Swallow	Irr immed Soap wash immed Resp support Medical attention immed	Blood, liver, CVS
Goggles, Wash:	Any poss molt Immed wet/Prompt contam/daily						
Change:	After if reason prob contam						
Remove:	Immed non-imperv wet/ Prompt non-imperv contam						
Provide	Quick drench						
Clothing:	N.R.	NIOSH	Inh	Irrit eyes, muc memb,	Eye:	Irr immed	Eyes, upper resp
Goggles:	N.R.	Y: SCBAF:PD,PP/SAF.PD,PP:ASCBA	Con	[carc]	Skin	(Not a dermal hazard)	sys, GI tract
Wash:	N.R.	Escape: HiEF/SCBAE	Ing		Breath: Swallow	Resp support Medical attention immed	
Change:	N.R.						
Remove:	N R						
Clothing:	Repeat	NIOSH	Inh	Drow, head, nau, vomit,	Eye:	Irr immed	Liver, kidney,
Goggles:	Reason prob	Y: SCBAF:PD,PP/SAF:PD,PP ASCBA	Abs	irrit eyes, nose, throat,	Skin	Water wash prompt	skin, eyes
Wash:	Prompt contam	Escape: GMFOV/SCBAE	Ing	liver damage; kidney	Breath:	Resp support	
Change:	N R		Con	failure, skin irrit, [carc]	Swallow	Medical attention immed	
Remove:	Immed wet (flamm)						
Clothing:	Repeat	NIOSH/OSHA	Inh	Irrit throat, eyes,	Eye:	Irr immed	Liver, skin, CNS,
Goggles:	Any poss molt/Repeat otherwise	10 mg/m ³ : CCROVDM/SA/SCBA	Abs	head, nau, ftg, numb	Skin:	Water flush immed	upper resp sys,
Wash	Prompt contam	25 mg/m ³ : SA:CF/PAPROVDM*	Ing	limbs; liver damage	Breath:	Resp support	eyes
Change	After work if reason prob contam	50 mg/m ³ : CCRFOVHIE/SCBAF/SAF/ GMFOVHIE/PAPRTOVHIE*	Con		Swallow	Medical attention immed	
Remove:	Prompt non-imperv contam	300 mg/m ³ : SAF:PD,PP 8: SCBAF:PD,PP/SAF.PD,PP:ASCBA Escape: GMFOVHIE/SCBAE					

Diphenyl

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties		Incompatibilities and reactivities	Measurement method (See Table 1)
Dipropylene glycol methyl ether CH ₃ OC ₃ H ₆ OC ₃ H ₆ OH 34590-94-8 JM1575000	Dipropylene glycol monomethyl ether, Dowanol® 50B	NIOSH/OSHA 100 ppm (600 mg/m ³) ST 150 ppm (900 mg/m ³) [skin]	Unknown	Colorless liquid with a mild, ether-like odor.	MW: 148.2 BP: 374°F Sol: Miscible Fl.P: 180°F IP: ?	VP(79°F): 0.4 mm FRZ: -112°F UEL: ? LEL: ?	Strong oxidizers	Char, CS ₂ , GC/FID, II(2) [#S69]
		1 ppm = 6.16 mg/m ³			Sp.Gr. 0.95 Class IIIA Combustible Liquid			
Endrin C ₁₂ H ₈ Cl ₆ O 72-20-B I01575000	1,2,3,4,10,10-Hexachloro- 6,7-epoxy-1,4,4a,5,6,7,- 8,8a-octahydro 1,4-endo- endo-5,8-dimethano- naphthalene, Hexadrin	NIOSH/OSHA 0.1 mg/m ³ [skin]	2000 mg/m ³	Colorless to tan crystalline solid with a mild, chemical odor. [insecticide]	MW: 380.9 BP: Decomposes Sol: Insoluble Fl.P: NA IP: ?	VP: Low MLT: 392°F (Decomposes) UEL: NA LEL: NA	Strong oxidizers, strong acids, parathion	Filter/ Chrom-102, Toluene; GC/ECD, III [#5519]
2761 55					Sp.Gr. 1.70 Noncombustible Solid, but may be dissolved in flammable liquids			
Epichlorohydrin C ₃ H ₅ OCl 106-89-8 TX4900000	1-Chloro-2,3-epoxypropane, 2-Chloropropylene oxide, gamma-Chloropropylene oxide See Appendix A Reduce exposure to lowest feasible concentration. OSHA 2 ppm (8 mg/m ³) [skin]	NIOSH Ca [250 ppm]	Ca [250 ppm]	Colorless liquid with a slightly irritating, chloroform-like odor	MW: 92.5 BP: 242°F Sol: 7% Fl.P: 93°F IP: 10.60 eV	VP: 13 mm FRZ: -54°F UEL: 21.0% LEL: 3.8%	Strong oxidizers, strong acids, certain salts, caustics zinc, aluminum, water [Note: May polymerize in presence of strong acids and bases, particularly when hot.]	Char CS ₂ , GC/FID: III [#1010]
2023 30	1 ppm = 3.85 mg/m ³				Sp Gr. 1.18 Class IC Flammable Liquid			
EPN C ₂ H ₅ O(C ₆ H ₅)P(S)- OC ₆ H ₄ NO ₂ 2104-64-5 TB1925000	O-Ethyl O-P-nitrophenyl benzenephosphonothioate, O-Ethyl O-P-nitrophenyl benzenethiophosphonate	NIOSH/OSHA 0.5 mg/m ³ [skin]	50 mg/m ³	Yellow solid with an aromatic odor. [Note: A brown liquid above 97°F.] [pesticide]	MW: 323.3 BP: ? Sol: Insoluble Fl.P: NA IP: ?	VP(212°F). 0 0003 mm MLT: 97°F UEL: NA LEL: NA	Strong oxidizers	Filter, Isooctane, GC/FPD, III [#5012]
					Sp Gr(77°F) 1.27 Noncombustible Solid			

Personal protection and sanitation (See Table 3)		Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Route	Symptoms (See Table 5)	Health hazards		Target organs (See Table 5)
					First aid (See Table 6)		
Clothing:	N.R.	NIOSH/OSHA	Inh	Irrit eyes, nose, weak, li-	Eye:	Irr immed	
Goggles:	N.R.	1000 ppm: SA/SCBA	Abs	head, head	Skin:	Water wash prompt	
Wash:	N.R.	2500 ppm: SA CF	Ing		Breath:	Resp support	
Change:	N.R.	5000 ppm: SCBAF/SAF/SAT CF	Con		Swallow:	Medical attention	
Remove:	N.R.	§: SCBAF PD,PP/SAF:PD,PP:ASCBA Escape: GMFOVHiE/SCBAE				immed	
Clothing:	Any poss	NIOSH/OSHA	Inh	Epileptiform convuls;	Eye:	Irr immed	
Goggles:	Any poss	1 mg/m ³ : CCROVDMFu/SA/SCBA	Abs	stupor, head, dizz, abdom	Skin:	Soap wash immed	
Wash:	Immed contam	2.5 mg/m ³ : SA CF/PAPROVDMFu	Ing	discomfort, nau, vomit;	Breath:	Resp support	
Change:	After work if any poss contam	5 mg/m ³ : CCRFOVHiE/SCBAF/SAF/ GMFOVHiE/PAPRTOVHiE/ SAT CF	Con	insom, aggressiveness, conf; lethargy, weak; anor;	Swallow:	Medical attention	
Remove:	Immed non-imperv contam	100 mg/m ³ : SA,PD,PP		in animals: liver damage		immed	
Provide:	Eyewash, quick drench	200 mg/m ³ : SAF,PD,PP §: SCBAF PD,PP/SAF:PD,PP:ASCBA Escape: GMFOVHiE/SCBAE					
Clothing:	Any poss	NIOSH	Inh	Nau, vomit; abdom pain,	Eye:	Irr immed	
Goggles:	Any poss	¥: SCBAF PD,PP/SAF PD,PP:ASCBA	Abs	resp distress, cough;	Skin:	Soap wash immed	
Wash:	Immed contam	Escape: GMFOVAG/SCBAE	Ing	cyan, irrit eyes, skin with	Breath:	Resp support	
Change:	N.R.		Con	deep pain, [carc]	Swallow:	Medical attention	
Remove:	Immed non-imperv contam					immed	
Provide:	Eyewash, quick drench						
Clothing:	Any poss	NIOSH/OSHA	Inh	Miosis, lac, rhin; head,	Eye:	Irr immed	
Goggles:	Any poss	5 mg/m ³ : SA/SCBA	Abs	tight chest, wheez, lar	Skin:	Soap wash immed	
Wash:	Immed contam	12.5 mg/m ³ : SA:CF	Ing	spasm; salv, cyan, anor,	Breath:	Resp support	
Change:	After work if any poss contam	25 mg/m ³ : SCBAF/SAF/SAT CF	Con	nau, abdom cramp, diarr;	Swallow:	Medical attention	
Remove:	Immed non-imperv contam	50 mg/m ³ : SA:PD,PP §: SCBAF PD,PP/SAF:PD,PP:ASCBA		para, convuls; low BP; card irregularities; irrit		immed	
Provide:	Eyewash, quick drench	Escape: GMFOVHiE/SCBAE		skin, eyes			