

SAFETY DATA SHEET

1. Identification

Product identifier	EPA Method 8270 Mega Mixture	
Other means of identification		
Item	M-8270MEGAAR5	
Recommended use	For Laboratory Use Only	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	Chem Service, Inc.	
Address	660 Tower Lane West Chester, PA 19380 United States	
Telephone	Toll Free	800-452-9994
	Direct	610-692-3026
Website	www.chemservice.com	
E-mail	info@chemservice.com	
Emergency phone number	Chemtrec US	800-424-9300
	Chemtrec outside US	+1 703-527-3887

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 3
	Acute toxicity, dermal	Category 3
	Acute toxicity, inhalation	Category 2
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1A
	Germ cell mutagenicity	Category 1
	Carcinogenicity	Category 1A
	Reproductive toxicity	Category 1
	Reproductive toxicity	Effects on or via lactation
	Specific target organ toxicity, single exposure	Category 1
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 1
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	

Label elements



Signal word

Danger

Hazard statement

Highly flammable liquid and vapor. Toxic if swallowed. May be fatal if swallowed and enters airways. Toxic in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. May cause harm to breast-fed children. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statement**Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe vapor. Avoid contact during pregnancy/while nursing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

Response

If swallowed: Immediately call a poison center/doctor. Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment is urgent (see this label). If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.

Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Supplemental information

21.8% of the mixture consists of component(s) of unknown acute dermal toxicity. 87.2% of the mixture consists of component(s) of unknown acute inhalation toxicity. 65.4% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 65.4% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Methylene chloride	Dichloromethane	75-09-2	65.4
Benzene		71-43-2	21.8
1,12-Benzoperylene		191-24-2	0.2
1,2,4-Trichlorobenzene		120-82-1	0.2
1,2:5,6-Dibenzanthracene		53-70-3	0.2
1,2-Benzanthracene		56-55-3	0.2
1,2-Dichlorobenzene		95-50-1	0.2
1,3-Dichlorobenzene		541-73-1	0.2
1,4-Dichlorobenzene		106-46-7	0.2
2,4,5-Trichlorophenol		95-95-4	0.2
2,4,6-Trichlorophenol		88-06-2	0.2
2,4-Dichlorophenol		120-83-2	0.2
2,4-Dimethylphenol		105-67-9	0.2
2,4-Dinitrophenol		51-28-5	0.2
2,4-Dinitrotoluene		121-14-2	0.2
2,6-Dinitrotoluene		606-20-2	0.2
2-Chloronaphthalene		91-58-7	0.2
2-Chlorophenol		95-57-8	0.2
2-Methylnaphthalene		91-57-6	0.2
2-Methylphenol		95-48-7	0.2
2-Nitrophenol		88-75-5	0.2

Chemical name	Common name and synonyms	CAS number	%
4,6-Dinitro-o-cresol		534-52-1	0.2
4-Bromophenyl phenyl ether		101-55-3	0.2
4-Chloro-3-methylphenol		59-50-7	0.2
4-Chloroaniline		106-47-8	0.2
4-Chlorophenyl phenyl ether		7005-72-3	0.2
4-Methylphenol		106-44-5	0.2
4-Nitrophenol		100-02-7	0.2
Acenaphthene		83-32-9	0.2
Acenaphthylene		208-96-8	0.2
Anthracene		120-12-7	0.2
Azobenzene		103-33-3	0.2
Benzo(a)pyrene		50-32-8	0.2
Benzo(b)fluoranthene		205-99-2	0.2
Benzo(k)fluoranthene		207-08-9	0.2
Bis(2-chloro-1-methylethyl) ether		108-60-1	0.2
Bis(2-chloroethoxy)methane		111-91-1	0.2
Bis(2-chloroethyl)ether		111-44-4	0.2
Bis(2-ethylhexyl)phthalate		117-81-7	0.2
Butyl benzyl phthalate		85-68-7	0.2
Carbazole		86-74-8	0.2
Chrysene		218-01-9	0.2
Dibenzofuran		132-64-9	0.2
Diethyl phthalate		84-66-2	0.2
Dimethyl phthalate		131-11-3	0.2
Di-n-butyl phthalate		84-74-2	0.2
Di-n-octyl phthalate		117-84-0	0.2
Fluoranthene		206-44-0	0.2
Fluorene		86-73-7	0.2
Hexachloro-1,3-butadiene		87-68-3	0.2
Hexachlorobenzene		118-74-1	0.2
Hexachlorocyclopentadiene		77-47-4	0.2
Hexachloroethane		67-72-1	0.2
Indeno(1,2,3-C,D)pyrene		193-39-5	0.2
Isophorone		78-59-1	0.2
m-Nitroaniline		99-09-2	0.2
Naphthalene		91-20-3	0.2
Nitrobenzene		98-95-3	0.2
N-Nitrosodimethylamine		62-75-9	0.2
N-Nitrosodi-n-propylamine		621-64-7	0.2
o-Nitroaniline		88-74-4	0.2
Pentachlorophenol		87-86-5	0.2
Phenanthrene		85-01-8	0.2
Phenol		108-95-2	0.2
p-Nitroaniline		100-01-6	0.2
Pyrene		129-00-0	0.2

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical advice/attention if you feel unwell. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off immediately all contaminated clothing. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapors or spray mist. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe vapors or spray mist. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). Freezer storage (-20 - -25 °C)

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	5 ppm
	TWA	1 ppm
Methylene chloride (CAS 75-09-2)	STEL	125 ppm
	TWA	25 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
1,2-Dichlorobenzene (CAS 95-50-1)	Ceiling	300 mg/m ³

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
1,4-Dichlorobenzene (CAS 106-46-7)	PEL	50 ppm 450 mg/m3
2,4-Dinitrotoluene (CAS 121-14-2)	PEL	75 ppm 1.5 mg/m3
2,6-Dinitrotoluene (CAS 606-20-2)	PEL	1.5 mg/m3
2-Methylphenol (CAS 95-48-7)	PEL	22 mg/m3
4,6-Dinitro-o-cresol (CAS 534-52-1)	PEL	5 ppm 0.2 mg/m3
4-Chlorophenyl phenyl ether (CAS 7005-72-3)	PEL	0.5 mg/m3
4-Methylphenol (CAS 106-44-5)	PEL	22 mg/m3
Bis(2-chloroethyl)ether (CAS 111-44-4)	Ceiling	5 ppm 90 mg/m3
Bis(2-ethylhexyl)phthalate (CAS 117-81-7)	PEL	15 ppm 5 mg/m3
Dimethyl phthalate (CAS 131-11-3)	PEL	5 mg/m3
Di-n-butyl phthalate (CAS 84-74-2)	PEL	5 mg/m3
Hexachloroethane (CAS 67-72-1)	PEL	10 mg/m3
Isophorone (CAS 78-59-1)	PEL	1 ppm 140 mg/m3
Naphthalene (CAS 91-20-3)	PEL	25 ppm 50 mg/m3
Nitrobenzene (CAS 98-95-3)	PEL	10 ppm 5 mg/m3
Pentachlorophenol (CAS 87-86-5)	PEL	1 ppm 0.5 mg/m3
Phenol (CAS 108-95-2)	PEL	19 mg/m3
p-Nitroaniline (CAS 100-01-6)	PEL	5 ppm 6 mg/m3

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Benzene (CAS 71-43-2)	Ceiling	25 ppm
	TWA	10 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
1,2,4-Trichlorobenzene (CAS 120-82-1)	Ceiling	5 ppm	
1,2-Dichlorobenzene (CAS 95-50-1)	STEL	50 ppm	
	TWA	25 ppm	
1,4-Dichlorobenzene (CAS 106-46-7)	TWA	10 ppm	
2,4-Dinitrotoluene (CAS 121-14-2)	TWA	0.2 mg/m3	
2,6-Dinitrotoluene (CAS 606-20-2)	TWA	0.2 mg/m3	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2-Methylnaphthalene (CAS 91-57-6)	TWA	0.5 ppm	
2-Methylphenol (CAS 95-48-7)	TWA	20 mg/m3	Inhalable fraction and vapor.
4,6-Dinitro-o-cresol (CAS 534-52-1)	TWA	0.2 mg/m3	
4-Methylphenol (CAS 106-44-5)	TWA	20 mg/m3	Inhalable fraction and vapor.
Benzene (CAS 71-43-2)	STEL	2.5 ppm	
	TWA	0.5 ppm	
Bis(2-chloroethyl)ether (CAS 111-44-4)	STEL	10 ppm	
	TWA	5 ppm	
Bis(2-ethylhexyl)phthalate (CAS 117-81-7)	TWA	5 mg/m3	
Diethyl phthalate (CAS 84-66-2)	TWA	5 mg/m3	
Dimethyl phthalate (CAS 131-11-3)	TWA	5 mg/m3	
Di-n-butyl phthalate (CAS 84-74-2)	TWA	5 mg/m3	
Hexachloro-1,3-butadiene (CAS 87-68-3)	TWA	0.02 ppm	
Hexachlorobenzene (CAS 118-74-1)	TWA	0.002 mg/m3	
Hexachlorocyclopentadiene (CAS 77-47-4)	TWA	0.01 ppm	
Hexachloroethane (CAS 67-72-1)	TWA	1 ppm	
Isophorone (CAS 78-59-1)	Ceiling	5 ppm	
Methylene chloride (CAS 75-09-2)	TWA	50 ppm	
Naphthalene (CAS 91-20-3)	TWA	10 ppm	
Nitrobenzene (CAS 98-95-3)	TWA	1 ppm	
Pentachlorophenol (CAS 87-86-5)	STEL	1 mg/m3	Inhalable fraction and vapor.
	TWA	0.5 mg/m3	Inhalable fraction and vapor.
Phenol (CAS 108-95-2)	TWA	5 ppm	
p-Nitroaniline (CAS 100-01-6)	TWA	3 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
1,2,4-Trichlorobenzene (CAS 120-82-1)	Ceiling	40 mg/m3
		5 ppm
1,2-Dichlorobenzene (CAS 95-50-1)	Ceiling	300 mg/m3
		50 ppm
2,4-Dinitrotoluene (CAS 121-14-2)	TWA	1.5 mg/m3
2,6-Dinitrotoluene (CAS 606-20-2)	TWA	1.5 mg/m3
2-Methylphenol (CAS 95-48-7)	TWA	10 mg/m3
		2.3 ppm
4,6-Dinitro-o-cresol (CAS 534-52-1)	TWA	0.2 mg/m3
4-Chlorophenyl phenyl ether (CAS 7005-72-3)	TWA	0.5 mg/m3
4-Methylphenol (CAS 106-44-5)	TWA	10 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Benzene (CAS 71-43-2)	STEL	2.3 ppm
	TWA	1 ppm
Bis(2-chloroethyl)ether (CAS 111-44-4)	STEL	0.1 ppm
	TWA	60 mg/m3
Bis(2-ethylhexyl)phthalate (CAS 117-81-7)	STEL	10 ppm
	TWA	30 mg/m3
Diethyl phthalate (CAS 84-66-2)	STEL	5 ppm
	TWA	10 mg/m3
Dimethyl phthalate (CAS 131-11-3)	TWA	5 mg/m3
	TWA	5 mg/m3
Di-n-butyl phthalate (CAS 84-74-2)	TWA	5 mg/m3
	TWA	5 mg/m3
Hexachloro-1,3-butadiene (CAS 87-68-3)	TWA	0.24 mg/m3
	TWA	0.02 ppm
Hexachlorocyclopentadiene (CAS 77-47-4)	TWA	0.1 mg/m3
	TWA	0.01 ppm
Hexachloroethane (CAS 67-72-1)	TWA	10 mg/m3
	TWA	1 ppm
Isophorone (CAS 78-59-1)	TWA	23 mg/m3
	TWA	4 ppm
Naphthalene (CAS 91-20-3)	STEL	75 mg/m3
	TWA	15 ppm
Nitrobenzene (CAS 98-95-3)	TWA	50 mg/m3
	TWA	10 ppm
Pentachlorophenol (CAS 87-86-5)	TWA	5 mg/m3
	TWA	1 ppm
Phenol (CAS 108-95-2)	Ceiling	0.5 mg/m3
	TWA	60 mg/m3
p-Nitroaniline (CAS 100-01-6)	TWA	15.6 ppm
	TWA	19 mg/m3
	TWA	5 ppm
	TWA	3 mg/m3

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
2,4-Dichlorophenol (CAS 120-83-2)	TWA	6.7 mg/m3
		1 ppm

Biological limit values
ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Benzene (CAS 71-43-2)	25 µg/g	S-Phenylmercapturic acid	Creatinine in urine	*
Methylene chloride (CAS 75-09-2)	0.3 mg/l	Dichloromethane	Urine	*
Nitrobenzene (CAS 98-95-3)	1.5 %	Methemoglobin	Hemoglobin in blood	*

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Phenol (CAS 108-95-2)	250 mg/g	Phenol with hydrolysis	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

1,2-Dichlorobenzene (CAS 95-50-1)	Can be absorbed through the skin.
2,4-Dinitrotoluene (CAS 121-14-2)	Can be absorbed through the skin.
2,6-Dinitrotoluene (CAS 606-20-2)	Can be absorbed through the skin.
2-Methylphenol (CAS 95-48-7)	Can be absorbed through the skin.
4,6-Dinitro-o-cresol (CAS 534-52-1)	Can be absorbed through the skin.
4-Methylphenol (CAS 106-44-5)	Can be absorbed through the skin.
Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Bis(2-chloroethyl)ether (CAS 111-44-4)	Can be absorbed through the skin.
Hexachloro-1,3-butadiene (CAS 87-68-3)	Can be absorbed through the skin.
Hexachlorobenzene (CAS 118-74-1)	Can be absorbed through the skin.
Hexachloroethane (CAS 67-72-1)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
Nitrobenzene (CAS 98-95-3)	Can be absorbed through the skin.
Pentachlorophenol (CAS 87-86-5)	Can be absorbed through the skin.
Phenol (CAS 108-95-2)	Can be absorbed through the skin.
p-Nitroaniline (CAS 100-01-6)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2,4-Dinitrotoluene (CAS 121-14-2)	Skin designation applies.
2,6-Dinitrotoluene (CAS 606-20-2)	Skin designation applies.
2-Methylphenol (CAS 95-48-7)	Skin designation applies.
4,6-Dinitro-o-cresol (CAS 534-52-1)	Skin designation applies.
4-Methylphenol (CAS 106-44-5)	Skin designation applies.
Bis(2-chloroethyl)ether (CAS 111-44-4)	Skin designation applies.
Hexachlorobenzene (CAS 118-74-1)	Skin designation applies.
Hexachloroethane (CAS 67-72-1)	Skin designation applies.
Nitrobenzene (CAS 98-95-3)	Skin designation applies.
Phenol (CAS 108-95-2)	Skin designation applies.
p-Nitroaniline (CAS 100-01-6)	Skin designation applies.

US - Tennessee OELs: Skin designation

2,4-Dinitrotoluene (CAS 121-14-2)	Can be absorbed through the skin.
2,6-Dinitrotoluene (CAS 606-20-2)	Can be absorbed through the skin.
2-Methylphenol (CAS 95-48-7)	Can be absorbed through the skin.
4,6-Dinitro-o-cresol (CAS 534-52-1)	Can be absorbed through the skin.
4-Methylphenol (CAS 106-44-5)	Can be absorbed through the skin.
Bis(2-chloroethyl)ether (CAS 111-44-4)	Can be absorbed through the skin.
Hexachloroethane (CAS 67-72-1)	Can be absorbed through the skin.
Nitrobenzene (CAS 98-95-3)	Can be absorbed through the skin.
Pentachlorophenol (CAS 87-86-5)	Can be absorbed through the skin.
Phenol (CAS 108-95-2)	Can be absorbed through the skin.
p-Nitroaniline (CAS 100-01-6)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

2,4-Dinitrotoluene (CAS 121-14-2)	Can be absorbed through the skin.
2,6-Dinitrotoluene (CAS 606-20-2)	Can be absorbed through the skin.
2-Methylnaphthalene (CAS 91-57-6)	Can be absorbed through the skin.
2-Methylphenol (CAS 95-48-7)	Can be absorbed through the skin.
4,6-Dinitro-o-cresol (CAS 534-52-1)	Can be absorbed through the skin.
4-Methylphenol (CAS 106-44-5)	Can be absorbed through the skin.
Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Bis(2-chloroethyl)ether (CAS 111-44-4)	Can be absorbed through the skin.
Hexachloro-1,3-butadiene (CAS 87-68-3)	Can be absorbed through the skin.
Hexachlorobenzene (CAS 118-74-1)	Can be absorbed through the skin.
Hexachloroethane (CAS 67-72-1)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
Nitrobenzene (CAS 98-95-3)	Can be absorbed through the skin.
N-Nitrosodimethylamine (CAS 62-75-9)	Can be absorbed through the skin.

Pentachlorophenol (CAS 87-86-5)	Can be absorbed through the skin.
Phenol (CAS 108-95-2)	Can be absorbed through the skin.
p-Nitroaniline (CAS 100-01-6)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2,4-Dinitrotoluene (CAS 121-14-2)	Can be absorbed through the skin.
2,6-Dinitrotoluene (CAS 606-20-2)	Can be absorbed through the skin.
4,6-Dinitro-o-cresol (CAS 534-52-1)	Can be absorbed through the skin.
Bis(2-chloroethyl)ether (CAS 111-44-4)	Can be absorbed through the skin.
Hexachloro-1,3-butadiene (CAS 87-68-3)	Can be absorbed through the skin.
Hexachloroethane (CAS 67-72-1)	Can be absorbed through the skin.
Nitrobenzene (CAS 98-95-3)	Can be absorbed through the skin.
Pentachlorophenol (CAS 87-86-5)	Can be absorbed through the skin.
Phenol (CAS 108-95-2)	Can be absorbed through the skin.
p-Nitroaniline (CAS 100-01-6)	Can be absorbed through the skin.

US WEEL Guides: Skin designation

2,4-Dichlorophenol (CAS 120-83-2)	Can be absorbed through the skin.
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US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2,4-Dinitrotoluene (CAS 121-14-2)	Can be absorbed through the skin.
2,6-Dinitrotoluene (CAS 606-20-2)	Can be absorbed through the skin.
2-Methylphenol (CAS 95-48-7)	Can be absorbed through the skin.
4,6-Dinitro-o-cresol (CAS 534-52-1)	Can be absorbed through the skin.
4-Methylphenol (CAS 106-44-5)	Can be absorbed through the skin.
Bis(2-chloroethyl)ether (CAS 111-44-4)	Can be absorbed through the skin.
Hexachloroethane (CAS 67-72-1)	Can be absorbed through the skin.
Nitrobenzene (CAS 98-95-3)	Can be absorbed through the skin.
Pentachlorophenol (CAS 87-86-5)	Can be absorbed through the skin.
Phenol (CAS 108-95-2)	Can be absorbed through the skin.
p-Nitroaniline (CAS 100-01-6)	Can be absorbed through the skin.

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection	Chemical respirator with organic vapor cartridge and full facepiece.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Observe any medical surveillance requirements. When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-139 °F (-95 °C) estimated
Initial boiling point and boiling range	103.55 °F (39.75 °C) estimated
Flash point	12.0 °F (-11.1 °C) estimated

Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.4 % estimated
Flammability limit - upper (%)	66.4 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	466.6 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	928 °F (497.78 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	1.21759 g/cm3 estimated
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Oxidizing properties	Not oxidizing.
Percent volatile	89.4 % estimated
Specific gravity	1.22 estimated
VOC	91.1 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Toxic gas.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Fatal if inhaled. May cause damage to organs by inhalation. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	Toxic in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Toxic if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Fatal if inhaled. May be fatal if swallowed and enters airways. Toxic in contact with skin.

Components	Species	Test Results
1,2,4-Trichlorobenzene (CAS 120-82-1)		
<u>Acute</u>		
Oral		
LD50	Rat	756 mg/kg
1,2-Dichlorobenzene (CAS 95-50-1)		
<u>Acute</u>		
Oral		
LD50	Rat	1516 mg/kg
1,3-Dichlorobenzene (CAS 541-73-1)		
<u>Acute</u>		
Oral		
LD50	Rat	580 mg/kg
1,4-Dichlorobenzene (CAS 106-46-7)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours
Oral		
LD50	Rat	500 mg/kg
2,4,5-Trichlorophenol (CAS 95-95-4)		
<u>Acute</u>		
Oral		
LD50	Rat	0.82 g/kg
2,4,6-Trichlorophenol (CAS 88-06-2)		
<u>Acute</u>		
Oral		
LD50	Rat	820 mg/kg
2,4-Dinitrophenol (CAS 51-28-5)		
<u>Acute</u>		
Oral		
LD50	Rat	30 mg/kg
2,4-Dinitrotoluene (CAS 121-14-2)		
<u>Acute</u>		
Oral		
LD50	Rat	268 mg/kg
2,6-Dinitrotoluene (CAS 606-20-2)		
<u>Acute</u>		
Oral		
LD50	Rat	177 mg/kg
2-Chloronaphthalene (CAS 91-58-7)		
<u>Acute</u>		
Oral		
LD50	Rat	2078 mg/kg
2-Chlorophenol (CAS 95-57-8)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	740 mg/kg
2-Methylnaphthalene (CAS 91-57-6)		
<u>Acute</u>		
Oral		
LD50	Rat	1630 mg/kg

Components	Species	Test Results
2-Methylphenol (CAS 95-48-7)		
<u>Acute</u>		
Oral		
LD50	Rat	121 mg/kg
4,6-Dinitro-o-cresol (CAS 534-52-1)		
<u>Acute</u>		
Oral		
LD50	Rat	26 mg/kg
4-Chloro-3-methylphenol (CAS 59-50-7)		
<u>Acute</u>		
Oral		
LD50	Rat	1830 mg/kg
4-Chloroaniline (CAS 106-47-8)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 200 mg/kg, 24 Hours
Inhalation		
LC50	Rat	2.34 mg/l, 4 Hours
Oral		
LD50	Rat	50 - 500 mg/kg
4-Methylphenol (CAS 106-44-5)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	300 mg/kg
Oral		
LD50	Rat	207 mg/kg
4-Nitrophenol (CAS 100-02-7)		
<u>Acute</u>		
Oral		
LD50	Rat	220 - 620 mg/kg
Anthracene (CAS 120-12-7)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 1320 mg/kg, 24 Hours
Benzene (CAS 71-43-2)		
<u>Acute</u>		
Oral		
LD50	Rat	690 - 1230 mg/kg
Benzo(a)pyrene (CAS 50-32-8)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	725 mg/kg
Bis(2-chloro-1-methylethyl) ether (CAS 108-60-1)		
<u>Acute</u>		
Oral		
LD50	Rat	220 - 270 mg/kg

Components	Species	Test Results
Bis(2-chloroethoxy)methane (CAS 111-91-1)		
<u>Acute</u>		
Dermal		
LD50	Rat	1000 - 2000 mg/kg, 24 Hours
Oral		
LD50	Rat	50 - 300 mg/kg
Butyl benzyl phthalate (CAS 85-68-7)		
<u>Acute</u>		
Oral		
LD50	Rat	2330 mg/kg
Dimethyl phthalate (CAS 131-11-3)		
<u>Acute</u>		
Oral		
LD50	Rat	2400 mg/kg
Di-n-butyl phthalate (CAS 84-74-2)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	4200 mg/kg
Inhalation		
LC50	Rat	15.68 mg/l, 4 Hours
Fluoranthene (CAS 206-44-0)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	3180 mg/kg
Hexachloro-1,3-butadiene (CAS 87-68-3)		
<u>Acute</u>		
Oral		
LD50	Rat	90 mg/kg
Hexachlorobenzene (CAS 118-74-1)		
<u>Acute</u>		
Oral		
LD50	Rat	3500 mg/kg
Hexachlorocyclopentadiene (CAS 77-47-4)		
<u>Acute</u>		
Inhalation		
LC50	Rat	0.0181 mg/l, 4 Hours
Hexachloroethane (CAS 67-72-1)		
<u>Acute</u>		
Oral		
LD50	Rat	4460 mg/kg
Isophorone (CAS 78-59-1)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	1200 mg/kg, 24 Hours
Inhalation		
LC50	Rat	7 mg/l, 4 Hours
Oral		
LD50	Rat	1000 mg/kg

Components	Species	Test Results
Methylene chloride (CAS 75-09-2)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, Days
Oral		
LD50	Rat	1600 mg/kg
Naphthalene (CAS 91-20-3)		
Acute		
Dermal		
LD50	Rabbit	> 2 g/kg
Oral		
LD50	Rat	490 mg/kg
Nitrobenzene (CAS 98-95-3)		
Acute		
Dermal		
LD50	Rabbit	760 mg/kg, 24 Hours
N-Nitrosodimethylamine (CAS 62-75-9)		
Acute		
Oral		
LD50	Rat	27 mg/kg
N-Nitrosodi-n-propylamine (CAS 621-64-7)		
Acute		
Oral		
LD50	Rat	480 mg/kg
Pentachlorophenol (CAS 87-86-5)		
Acute		
Dermal		
LD50	Rat	96 mg/kg
Phenol (CAS 108-95-2)		
Acute		
Dermal		
LD50	Rat	525 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity May cause genetic defects.

Carcinogenicity May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

1,12-Benzoperylene (CAS 191-24-2)	3 Not classifiable as to carcinogenicity to humans.
1,2:5,6-Dibenzanthracene (CAS 53-70-3)	2A Probably carcinogenic to humans.
1,2-Benzanthracene (CAS 56-55-3)	2B Possibly carcinogenic to humans.
1,2-Dichlorobenzene (CAS 95-50-1)	3 Not classifiable as to carcinogenicity to humans.
1,3-Dichlorobenzene (CAS 541-73-1)	3 Not classifiable as to carcinogenicity to humans.
1,4-Dichlorobenzene (CAS 106-46-7)	2B Possibly carcinogenic to humans.
2,4,5-Trichlorophenol (CAS 95-95-4)	2B Possibly carcinogenic to humans.
2,4,6-Trichlorophenol (CAS 88-06-2)	2B Possibly carcinogenic to humans.
2,4-Dichlorophenol (CAS 120-83-2)	2B Possibly carcinogenic to humans.
2,4-Dinitrotoluene (CAS 121-14-2)	2B Possibly carcinogenic to humans.

2,6-Dinitrotoluene (CAS 606-20-2)
 2-Chlorophenol (CAS 95-57-8)
 4-Chloroaniline (CAS 106-47-8)
 Acenaphthene (CAS 83-32-9)
 Anthracene (CAS 120-12-7)
 Azobenzene (CAS 103-33-3)
 Benzene (CAS 71-43-2)
 Benzo(a)pyrene (CAS 50-32-8)
 Benzo(b)fluoranthene (CAS 205-99-2)
 Benzo(k)fluoranthene (CAS 207-08-9)
 Bis(2-chloro-1-methylethyl) ether (CAS 108-60-1)
 Bis(2-chloroethyl)ether (CAS 111-44-4)
 Bis(2-ethylhexyl)phthalate (CAS 117-81-7)
 Butyl benzyl phthalate (CAS 85-68-7)
 Carbazole (CAS 86-74-8)
 Chrysene (CAS 218-01-9)
 Fluoranthene (CAS 206-44-0)
 Fluorene (CAS 86-73-7)
 Hexachloro-1,3-butadiene (CAS 87-68-3)
 Hexachlorobenzene (CAS 118-74-1)
 Hexachloroethane (CAS 67-72-1)
 Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
 Methylene chloride (CAS 75-09-2)
 Naphthalene (CAS 91-20-3)
 Nitrobenzene (CAS 98-95-3)
 N-Nitrosodimethylamine (CAS 62-75-9)
 N-Nitrosodi-n-propylamine (CAS 621-64-7)
 Pentachlorophenol (CAS 87-86-5)
 Phenanthrene (CAS 85-01-8)
 Phenol (CAS 108-95-2)
 Pyrene (CAS 129-00-0)

2B Possibly carcinogenic to humans.
 2B Possibly carcinogenic to humans.
 2B Possibly carcinogenic to humans.
 3 Not classifiable as to carcinogenicity to humans.
 3 Not classifiable as to carcinogenicity to humans.
 3 Not classifiable as to carcinogenicity to humans.
 1 Carcinogenic to humans.
 1 Carcinogenic to humans.
 2B Possibly carcinogenic to humans.
 2B Possibly carcinogenic to humans.
 3 Not classifiable as to carcinogenicity to humans.
 3 Not classifiable as to carcinogenicity to humans.
 2B Possibly carcinogenic to humans.
 3 Not classifiable as to carcinogenicity to humans.
 2B Possibly carcinogenic to humans.
 3 Not classifiable as to carcinogenicity to humans.
 3 Not classifiable as to carcinogenicity to humans.
 2B Possibly carcinogenic to humans.
 2B Possibly carcinogenic to humans.
 2B Possibly carcinogenic to humans.
 2A Probably carcinogenic to humans.
 2B Possibly carcinogenic to humans.
 2B Possibly carcinogenic to humans.
 2A Probably carcinogenic to humans.
 2B Possibly carcinogenic to humans.
 2B Possibly carcinogenic to humans.
 3 Not classifiable as to carcinogenicity to humans.
 3 Not classifiable as to carcinogenicity to humans.
 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Benzene (CAS 71-43-2) Cancer
 Methylene chloride (CAS 75-09-2) Cancer
 N-Nitrosodimethylamine (CAS 62-75-9) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

1,2:5,6-Dibenzanthracene (CAS 53-70-3) Reasonably Anticipated to be a Human Carcinogen.
 1,2-Benzanthracene (CAS 56-55-3) Reasonably Anticipated to be a Human Carcinogen.
 1,4-Dichlorobenzene (CAS 106-46-7) Reasonably Anticipated to be a Human Carcinogen.
 2,4,6-Trichlorophenol (CAS 88-06-2) Reasonably Anticipated to be a Human Carcinogen.
 Benzene (CAS 71-43-2) Known To Be Human Carcinogen.
 Benzo(a)pyrene (CAS 50-32-8) Reasonably Anticipated to be a Human Carcinogen.
 Benzo(b)fluoranthene (CAS 205-99-2) Reasonably Anticipated to be a Human Carcinogen.
 Benzo(k)fluoranthene (CAS 207-08-9) Reasonably Anticipated to be a Human Carcinogen.
 Bis(2-ethylhexyl)phthalate (CAS 117-81-7) Reasonably Anticipated to be a Human Carcinogen.
 Hexachlorobenzene (CAS 118-74-1) Reasonably Anticipated to be a Human Carcinogen.
 Hexachloroethane (CAS 67-72-1) Reasonably Anticipated to be a Human Carcinogen.
 Indeno(1,2,3-C,D)pyrene (CAS 193-39-5) Reasonably Anticipated to be a Human Carcinogen.
 Methylene chloride (CAS 75-09-2) Reasonably Anticipated to be a Human Carcinogen.
 Naphthalene (CAS 91-20-3) Reasonably Anticipated to be a Human Carcinogen.
 Nitrobenzene (CAS 98-95-3) Reasonably Anticipated to be a Human Carcinogen.
 N-Nitrosodimethylamine (CAS 62-75-9) Reasonably Anticipated to be a Human Carcinogen.
 N-Nitrosodi-n-propylamine (CAS 621-64-7) Reasonably Anticipated to be a Human Carcinogen.
 Pentachlorophenol (CAS 87-86-5) Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity May cause harm to breastfed babies. May damage fertility or the unborn child.
Specific target organ toxicity - single exposure Causes damage to organs. May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard May be fatal if swallowed and enters airways.
Chronic effects Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Components		Species	Test Results
1,2,4-Trichlorobenzene (CAS 120-82-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	3.1 - 3.69 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	1.35 - 1.73 mg/l, 96 hours
1,2-Dichlorobenzene (CAS 95-50-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.74 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	1.58 mg/l, 96 hours
1,3-Dichlorobenzene (CAS 541-73-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.2 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	3.9 - 6.2 mg/l, 96 hours
1,4-Dichlorobenzene (CAS 106-46-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.0007 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	1.12 mg/l, 96 hours
2,4,5-Trichlorophenol (CAS 95-95-4)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.72 - 1.2 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	0.39 - 0.54 mg/l, 96 hours
2,4,6-Trichlorophenol (CAS 88-06-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.8 - 2.6 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	0.35 - 0.49 mg/l, 96 hours
2,4-Dichlorophenol (CAS 120-83-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.2 - 1.7 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	1.6 - 2.6 mg/l, 96 hours
2,4-Dimethylphenol (CAS 105-67-9)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.77 - 3.17 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	4.1 - 9.6 mg/l, 96 hours
2,4-Dinitrophenol (CAS 51-28-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	3.4 - 5.66 mg/l, 48 hours
Fish	LC50	Asiatic knifefish (Notopterus notopterus)	0.9 mg/l, 96 hours
2,4-Dinitrotoluene (CAS 121-14-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	22.5 - 30.5 mg/l, 48 hours
Fish	LC50	Zebra danio (Danio rerio)	10 - 60 mg/l, 96 hours
2,6-Dinitrotoluene (CAS 606-20-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	21.7 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	17.2 - 20.2 mg/l, 96 hours

Components		Species	Test Results
2-Chlorophenol (CAS 95-57-8)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	3.31 - 4.91 mg/l, 48 hours
Fish	LC50	Starry, european flounder (Platichthys flesus)	6.99 mg/l, 96 hours
2-Methylnaphthalene (CAS 91-57-6)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	1.07 - 1.841 mg/l, 96 hours
2-Methylphenol (CAS 95-48-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	15.8 mg/l, 48 hours
Fish	LC50	Ide, silver or golden orfe (Leuciscus idus)	10 mg/l, 96 hours
2-Nitrophenol (CAS 88-75-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	11 - 25 mg/l, 48 hours
Fish	LC50	Sheepshead minnow (Cyprinodon variegatus)	15 - 67 mg/l, 96 hours
4,6-Dinitro-o-cresol (CAS 534-52-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	0.1 - 0.21 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.037 - 0.117 mg/l, 96 hours
4-Bromophenyl phenyl ether (CAS 101-55-3)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	4 - 6.1 mg/l, 96 hours
4-Chloro-3-methylphenol (CAS 59-50-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.13 - 1.94 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	1 - 10 mg/l, 96 hours
4-Chloroaniline (CAS 106-47-8)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.12 - 0.78 mg/l, 48 hours
Fish	LC50	Zebra danio (Danio rerio)	0.0003 - 0.0003 mg/l, 96 hours
4-Chlorophenyl phenyl ether (CAS 7005-72-3)			
Aquatic			
Fish	LC50	Brook trout (Salvelinus fontinalis)	0.65 - 0.82 mg/l, 96 hours
4-Methylphenol (CAS 106-44-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	7.7 mg/l, 48 hours
Fish	LC50	Fish (Lepidocephalichthyes guntea)	6.15 - 7.96 mg/l, 96 hours
4-Nitrophenol (CAS 100-02-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	3.1 - 7.1 mg/l, 48 hours
Fish	LC50	Zebra danio (Danio rerio)	5.6 - 13.9 mg/l, 96 hours
Acenaphthene (CAS 83-32-9)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.102 - 1.475 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.52 - 0.71 mg/l, 96 hours

Components	Species		Test Results
Anthracene (CAS 120-12-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.081 - 0.112 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	0.0045 mg/l, 96 hours
Benzene (CAS 71-43-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	8.76 - 15.6 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	7.2 - 11.7 mg/l, 96 hours
Bis(2-chloroethoxy)methane (CAS 111-91-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	155 - 217 mg/l, 96 hours
Bis(2-chloroethyl)ether (CAS 111-44-4)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	600 mg/l, 96 hours
Bis(2-ethylhexyl)phthalate (CAS 117-81-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	0.133 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	> 0.2 mg/l, 96 hours
			> 0.2 mg/l, 96 hours
Butyl benzyl phthalate (CAS 85-68-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 0.96 mg/l, 48 hours
Fish	LC50	Shiner perch (Cymatogaster aggregata)	0.47 - 0.56 mg/l, 96 hours
Carbazole (CAS 86-74-8)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	2.3 - 4.88 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.93 mg/l, 96 hours
Dibenzofuran (CAS 132-64-9)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	0.84 - 1.31 mg/l, 96 hours
Diethyl phthalate (CAS 84-66-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	86 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	12 mg/l, 96 hours
Dimethyl phthalate (CAS 131-11-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	45.9 mg/l, 48 hours
Fish	LC50	Sheepshead minnow (Cyprinodon variegatus)	29 mg/l, 96 hours
Di-n-butyl phthalate (CAS 84-74-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	2.99 mg/l, 48 hours
Fish	LC50	Channel catfish (Ictalurus punctatus)	0.4 - 0.53 mg/l, 96 hours
Fluoranthene (CAS 206-44-0)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	0.0054 - 0.0085 mg/l, 96 hours

Components		Species	Test Results
Fluorene (CAS 86-73-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	0.212 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.55 - 1.21 mg/l, 96 hours
Hexachloro-1,3-butadiene (CAS 87-68-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	0.09 - 0.11 mg/l, 96 hours
Hexachlorobenzene (CAS 118-74-1)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1 mg/l, 96 hours
Hexachlorocyclopentadiene (CAS 77-47-4)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	0.007 mg/l, 96 hours
Hexachloroethane (CAS 67-72-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.6 - 2.1 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	0.73 - 1.28 mg/l, 96 hours
Isophorone (CAS 78-59-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	132 - 159 mg/l, 96 hours
Methylene chloride (CAS 75-09-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1250 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	140.8 - 277.8 mg/l, 96 hours
m-Nitroaniline (CAS 99-09-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.195 - 2.02 mg/l, 48 hours
Fish	LC50	Guppy (Poecilia reticulata)	72.6 - 91.8 mg/l, 96 hours
Naphthalene (CAS 91-20-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)	1.11 - 1.68 mg/l, 96 hours
Nitrobenzene (CAS 98-95-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	25.6 - 42 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	36 - 49 mg/l, 96 hours
N-Nitrosodimethylamine (CAS 62-75-9)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	832 - 1062 mg/l, 96 hours
o-Nitroaniline (CAS 88-74-4)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	4.08 - 6 mg/l, 48 hours
Pentachlorophenol (CAS 87-86-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.273 - 0.375 mg/l, 48 hours
Fish	LC50	Atlantic salmon (Salmo salar)	0.042 - 0.083 mg/l, 96 hours

Components	Species	Test Results
Phenanthrene (CAS 85-01-8)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 0.185 - 0.243 mg/l, 48 hours
Fish	LC50	Sheepshead minnow (Cyprinodon variegatus) 0.438 - 0.523 mg/l, 96 hours
Phenol (CAS 108-95-2)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia obtusa) 4.7 - 6.4 mg/l, 48 hours
Fish	LC50	Asiatic knifefish (Notopterus notopterus) 8 - 8.25 mg/l, 96 hours
p-Nitroaniline (CAS 100-01-6)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 17 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 85.7 - 117 mg/l, 96 hours
Pyrene (CAS 129-00-0)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) > 2 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

1,12-Benzoperylene	6.63
1,2,4-Trichlorobenzene	4.02
1,2:5,6-Dibenzanthracene	6.5
1,2-Benzanthracene	5.79
1,2-Dichlorobenzene	3.43
1,3-Dichlorobenzene	3.53
1,4-Dichlorobenzene	3.44
2,4,5-Trichlorophenol	3.72
2,4,6-Trichlorophenol	3.69
2,4-Dichlorophenol	3.06
2,4-Dimethylphenol	2.3
2,4-Dinitrophenol	1.67
2,4-Dinitrotoluene	1.98
2,6-Dinitrotoluene	2.1
2-Chloronaphthalene	3.9
2-Chlorophenol	2.15
2-Methylnaphthalene	3.86
2-Methylphenol	1.95
2-Nitrophenol	1.79
4,6-Dinitro-o-cresol	2.13
4-Chloro-3-methylphenol	3.1
4-Chloroaniline	1.83
4-Chlorophenyl phenyl ether	4.08
4-Methylphenol	1.94
4-Nitrophenol	1.91
Acenaphthene	3.92
Acenaphthylene	4.07
Anthracene	4.45
Azobenzene	3.82
Benzene	2.13
Benzo(a)pyrene	5.97
Benzo(b)fluoranthene	6.6
Benzo(k)fluoranthene	6.84
Bis(2-chloro-1-methylethyl) ether	2.48
Bis(2-chloroethoxy)methane	0.75
Bis(2-chloroethyl)ether	1.29
Bis(2-ethylhexyl)phthalate	7.6

Partition coefficient n-octanol / water (log Kow)

Butyl benzyl phthalate	4.91
Chrysene	5.73
Dibenzofuran	4.12
Diethyl phthalate	2.47
Dimethyl phthalate	1.6
Di-n-butyl phthalate	4.9
Di-n-octyl phthalate	8.1
Fluoranthene	5.16
Hexachloro-1,3-butadiene	4.78
Hexachlorobenzene	5.73
Hexachlorocyclopentadiene	3.99
Hexachloroethane	4.14
Isophorone	1.7
Methylene chloride	1.25
m-Nitroaniline	1.37
Naphthalene	3.3
Nitrobenzene	1.85
N-Nitrosodimethylamine	-0.57
N-Nitrosodi-n-propylamine	1.36
Pentachlorophenol	5.12
Phenanthrene	4.57
Phenol	1.46
p-Nitroaniline	1.39
Pyrene	4.88

Mobility in soil No data available.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA Hazardous Waste P List: Reference

2,4-Dinitrophenol (CAS 51-28-5)	P048
4,6-Dinitro-o-cresol (CAS 534-52-1)	P047
4-Chloroaniline (CAS 106-47-8)	P024
N-Nitrosodimethylamine (CAS 62-75-9)	P082
p-Nitroaniline (CAS 100-01-6)	P077

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information**DOT**

UN number	UN1992
UN proper shipping name	Flammable liquids, toxic, n.o.s. (Benzene RQ = 46 LBS, Methylene chloride RQ = 1529 LBS), MARINE POLLUTANT (1,2-Dichlorobenzene, 1,2,4-Trichlorobenzene)
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1(PGI, II)
Label(s)	3, 6.1
Packing group	II
Environmental hazards	
Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Special provisions	IB2, T7, TP2, TP13
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	243

IATA

UN number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s. (Benzene, Methylene chloride)
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1(PGI, II)
Packing group	II
Environmental hazards	Yes
ERG Code	3HP
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	

Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1992
UN proper shipping name	FLAMMABLE LIQUID, TOXIC, N.O.S. (Benzene, Methylene chloride), MARINE POLLUTANT (1,2,4-Trichlorobenzene, 2,4-Dinitrophenol)
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1(PGI, II)
Packing group	II
Environmental hazards	
Marine pollutant	Yes
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

1,2,4-Trichlorobenzene
2,4-Dinitrophenol

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

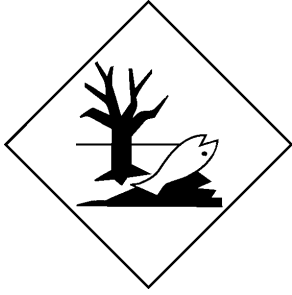
DOT



IATA; IMDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant. DOT Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

2,4,5-Trichlorophenol (CAS 95-95-4)	0.1 % One-Time Export Notification only.
2,4-Dichlorophenol (CAS 120-83-2)	0.1 % One-Time Export Notification only.
4-Bromophenyl phenyl ether (CAS 101-55-3)	1.0 % One-Time Export Notification only.
Bis(2-chloro-1-methylethyl) ether (CAS 108-60-1)	1.0 % One-Time Export Notification only.
Bis(2-chloroethyl)ether (CAS 111-44-4)	1.0 % One-Time Export Notification only.
p-Nitroaniline (CAS 100-01-6)	1.0 % One-Time Export Notification only.

TSCA Chemical Action Plans, Chemicals of Concern

Bis(2-ethylhexyl)phthalate (CAS 117-81-7)	Phthalates Action Plan
Butyl benzyl phthalate (CAS 85-68-7)	Phthalates Action Plan
Diethyl phthalate (CAS 84-66-2)	Phthalates Action Plan
Dimethyl phthalate (CAS 131-11-3)	Phthalates Action Plan
Di-n-butyl phthalate (CAS 84-74-2)	Phthalates Action Plan
Di-n-octyl phthalate (CAS 117-84-0)	Phthalates Action Plan

CERCLA Hazardous Substance List (40 CFR 302.4)

1,12-Benzoperylene (CAS 191-24-2)	Listed.
1,2,4-Trichlorobenzene (CAS 120-82-1)	Listed.
1,2:5,6-Dibenzanthracene (CAS 53-70-3)	Listed.
1,2-Benzanthracene (CAS 56-55-3)	Listed.
1,2-Dichlorobenzene (CAS 95-50-1)	Listed.
1,3-Dichlorobenzene (CAS 541-73-1)	Listed.
1,4-Dichlorobenzene (CAS 106-46-7)	Listed.
2,4,5-Trichlorophenol (CAS 95-95-4)	Listed.
2,4,6-Trichlorophenol (CAS 88-06-2)	Listed.
2,4-Dichlorophenol (CAS 120-83-2)	Listed.
2,4-Dimethylphenol (CAS 105-67-9)	Listed.
2,4-Dinitrophenol (CAS 51-28-5)	Listed.
2,4-Dinitrotoluene (CAS 121-14-2)	Listed.
2,6-Dinitrotoluene (CAS 606-20-2)	Listed.
2-Chloronaphthalene (CAS 91-58-7)	Listed.
2-Chlorophenol (CAS 95-57-8)	Listed.
2-Methylphenol (CAS 95-48-7)	Listed.
2-Nitrophenol (CAS 88-75-5)	Listed.
4,6-Dinitro-o-cresol (CAS 534-52-1)	Listed.
4-Bromophenyl phenyl ether (CAS 101-55-3)	Listed.
4-Chloro-3-methylphenol (CAS 59-50-7)	Listed.
4-Chloroaniline (CAS 106-47-8)	Listed.
4-Chlorophenyl phenyl ether (CAS 7005-72-3)	Listed.
4-Methylphenol (CAS 106-44-5)	Listed.
4-Nitrophenol (CAS 100-02-7)	Listed.
Acenaphthene (CAS 83-32-9)	Listed.
Acenaphthylene (CAS 208-96-8)	Listed.
Anthracene (CAS 120-12-7)	Listed.
Azobenzene (CAS 103-33-3)	Listed.
Benzene (CAS 71-43-2)	Listed.
Benzo(a)pyrene (CAS 50-32-8)	Listed.
Benzo(b)fluoranthene (CAS 205-99-2)	Listed.
Benzo(k)fluoranthene (CAS 207-08-9)	Listed.

Bis(2-chloro-1-methylethyl) ether (CAS 108-60-1)	Listed.
Bis(2-chloroethoxy)methane (CAS 111-91-1)	Listed.
Bis(2-chloroethyl)ether (CAS 111-44-4)	Listed.
Bis(2-ethylhexyl)phthalate (CAS 117-81-7)	Listed.
Butyl benzyl phthalate (CAS 85-68-7)	Listed.
Chrysene (CAS 218-01-9)	Listed.
Dibenzofuran (CAS 132-64-9)	Listed.
Diethyl phthalate (CAS 84-66-2)	Listed.
Dimethyl phthalate (CAS 131-11-3)	Listed.
Di-n-butyl phthalate (CAS 84-74-2)	Listed.
Di-n-octyl phthalate (CAS 117-84-0)	Listed.
Fluoranthene (CAS 206-44-0)	Listed.
Fluorene (CAS 86-73-7)	Listed.
Hexachloro-1,3-butadiene (CAS 87-68-3)	Listed.
Hexachlorobenzene (CAS 118-74-1)	Listed.
Hexachlorocyclopentadiene (CAS 77-47-4)	Listed.
Hexachloroethane (CAS 67-72-1)	Listed.
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)	Listed.
Isophorone (CAS 78-59-1)	Listed.
Methylene chloride (CAS 75-09-2)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Nitrobenzene (CAS 98-95-3)	Listed.
N-Nitrosodimethylamine (CAS 62-75-9)	Listed.
N-Nitrosodi-n-propylamine (CAS 621-64-7)	Listed.
Pentachlorophenol (CAS 87-86-5)	Listed.
Phenanthrene (CAS 85-01-8)	Listed.
Phenol (CAS 108-95-2)	Listed.
p-Nitroaniline (CAS 100-01-6)	Listed.
Pyrene (CAS 129-00-0)	Listed.

SARA 304 Emergency release notification

2-Methylphenol (CAS 95-48-7)	100 LBS
4,6-Dinitro-o-cresol (CAS 534-52-1)	10 LBS
Bis(2-chloroethyl)ether (CAS 111-44-4)	10 LBS
Hexachlorocyclopentadiene (CAS 77-47-4)	10 LBS
Nitrobenzene (CAS 98-95-3)	1000 LBS
N-Nitrosodimethylamine (CAS 62-75-9)	10 LBS
Phenol (CAS 108-95-2)	1000 LBS
Pyrene (CAS 129-00-0)	5000 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Benzene (CAS 71-43-2)	Cancer
Methylene chloride (CAS 75-09-2)	Cancer
N-Nitrosodimethylamine (CAS 62-75-9)	Cancer
Benzene (CAS 71-43-2)	Central nervous system
Methylene chloride (CAS 75-09-2)	Heart
N-Nitrosodimethylamine (CAS 62-75-9)	Liver
Benzene (CAS 71-43-2)	Blood
Methylene chloride (CAS 75-09-2)	Central nervous system
N-Nitrosodimethylamine (CAS 62-75-9)	Acute toxicity
Benzene (CAS 71-43-2)	Aspiration
Methylene chloride (CAS 75-09-2)	Liver
Benzene (CAS 71-43-2)	Skin
Methylene chloride (CAS 75-09-2)	Skin irritation
Benzene (CAS 71-43-2)	Eye
Methylene chloride (CAS 75-09-2)	Eye irritation
Benzene (CAS 71-43-2)	respiratory tract irritation
	Flammability

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
2-Methylphenol	95-48-7	100		1000	10000
4,6-Dinitro-o-cresol	534-52-1	10		10	10000
Bis(2-chloroethyl)ether	111-44-4	10	10000		
Hexachlorocyclopentadiene	77-47-4	10	100		
Nitrobenzene	98-95-3	1000	10000		
N-Nitrosodimethylamine	62-75-9	10	1000		
Phenol	108-95-2	1000		500	10000
Pyrene	129-00-0	5000		1000	10000

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
1,2:5,6-Dibenzanthracene	53-70-3	0.2
1,2-Benzanthracene	56-55-3	0.2
1,4-Dichlorobenzene	106-46-7	0.2
2,4,6-Trichlorophenol	88-06-2	0.2
2,4-Dinitrotoluene	121-14-2	0.2
2,6-Dinitrotoluene	606-20-2	0.2
2-Chlorophenol	95-57-8	0.2
4-Chloroaniline	106-47-8	0.2
Benzene	71-43-2	21.8
Benzo(a)pyrene	50-32-8	0.2
Benzo(b)fluoranthene	205-99-2	0.2
Benzo(k)fluoranthene	207-08-9	0.2
Bis(2-ethylhexyl)phthalate	117-81-7	0.2
Hexachlorobenzene	118-74-1	0.2
Hexachloroethane	67-72-1	0.2
Indeno(1,2,3-C,D)pyrene	193-39-5	0.2
Methylene chloride	75-09-2	65.4
Naphthalene	91-20-3	0.2
Nitrobenzene	98-95-3	0.2
N-Nitrosodimethylamine	62-75-9	0.2
N-Nitrosodi-n-propylamine	621-64-7	0.2
Pentachlorophenol	87-86-5	0.2

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

- 1,12-Benzoperylene (CAS 191-24-2)
- 1,2,4-Trichlorobenzene (CAS 120-82-1)
- 1,2:5,6-Dibenzanthracene (CAS 53-70-3)
- 1,2-Benzanthracene (CAS 56-55-3)
- 1,4-Dichlorobenzene (CAS 106-46-7)
- 2,4,5-Trichlorophenol (CAS 95-95-4)
- 2,4,6-Trichlorophenol (CAS 88-06-2)
- 2,4-Dinitrophenol (CAS 51-28-5)
- 2,4-Dinitrotoluene (CAS 121-14-2)
- 2-Methylnaphthalene (CAS 91-57-6)
- 2-Methylphenol (CAS 95-48-7)
- 4,6-Dinitro-o-cresol (CAS 534-52-1)
- 4-Methylphenol (CAS 106-44-5)
- 4-Nitrophenol (CAS 100-02-7)
- Acenaphthene (CAS 83-32-9)
- Acenaphthylene (CAS 208-96-8)
- Anthracene (CAS 120-12-7)
- Azobenzene (CAS 103-33-3)
- Benzene (CAS 71-43-2)

Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Bis(2-chloroethyl)ether (CAS 111-44-4)
Bis(2-ethylhexyl)phthalate (CAS 117-81-7)
Chrysene (CAS 218-01-9)
Dibenzofuran (CAS 132-64-9)
Dimethyl phthalate (CAS 131-11-3)
Di-n-butyl phthalate (CAS 84-74-2)
Fluoranthene (CAS 206-44-0)
Fluorene (CAS 86-73-7)
Hexachloro-1,3-butadiene (CAS 87-68-3)
Hexachlorobenzene (CAS 118-74-1)
Hexachlorocyclopentadiene (CAS 77-47-4)
Hexachloroethane (CAS 67-72-1)
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
Isophorone (CAS 78-59-1)
Methylene chloride (CAS 75-09-2)
Naphthalene (CAS 91-20-3)
Nitrobenzene (CAS 98-95-3)
N-Nitrosodimethylamine (CAS 62-75-9)
Pentachlorophenol (CAS 87-86-5)
Phenanthrene (CAS 85-01-8)
Phenol (CAS 108-95-2)
Pyrene (CAS 129-00-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

2-Methylphenol (CAS 95-48-7)	Low priority
4-Methylphenol (CAS 106-44-5)	Low priority
Isophorone (CAS 78-59-1)	Low priority
Phenol (CAS 108-95-2)	Low priority

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

1,2:5,6-Dibenzanthracene (CAS 53-70-3)	Listed: January 1, 1988
1,2-Benzanthracene (CAS 56-55-3)	Listed: July 1, 1987
1,4-Dichlorobenzene (CAS 106-46-7)	Listed: January 1, 1989
2,4,6-Trichlorophenol (CAS 88-06-2)	Listed: January 1, 1988
2,4-Dinitrotoluene (CAS 121-14-2)	Listed: July 1, 1988
2,6-Dinitrotoluene (CAS 606-20-2)	Listed: July 1, 1995
4-Chloroaniline (CAS 106-47-8)	Listed: October 1, 1994
Azobenzene (CAS 103-33-3)	Listed: January 1, 1990
Benzene (CAS 71-43-2)	Listed: February 27, 1987
Benzo(a)pyrene (CAS 50-32-8)	Listed: July 1, 1987
Benzo(b)fluoranthene (CAS 205-99-2)	Listed: July 1, 1987
Benzo(k)fluoranthene (CAS 207-08-9)	Listed: July 1, 1987
Bis(2-chloro-1-methylethyl) ether (CAS 108-60-1)	Listed: October 29, 1999
Bis(2-chloroethyl)ether (CAS 111-44-4)	Listed: April 1, 1988
Bis(2-ethylhexyl)phthalate (CAS 117-81-7)	Listed: January 1, 1988
Carbazole (CAS 86-74-8)	Listed: May 1, 1996
Chrysene (CAS 218-01-9)	Listed: January 1, 1990
Hexachloro-1,3-butadiene (CAS 87-68-3)	Listed: May 3, 2011
Hexachlorobenzene (CAS 118-74-1)	Listed: October 1, 1987
Hexachloroethane (CAS 67-72-1)	Listed: July 1, 1990
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)	Listed: January 1, 1988
Methylene chloride (CAS 75-09-2)	Listed: April 1, 1988
Naphthalene (CAS 91-20-3)	Listed: April 19, 2002
Nitrobenzene (CAS 98-95-3)	Listed: August 26, 1997
N-Nitrosodimethylamine (CAS 62-75-9)	Listed: October 1, 1987
N-Nitrosodi-n-propylamine (CAS 621-64-7)	Listed: January 1, 1988
Pentachlorophenol (CAS 87-86-5)	Listed: January 1, 1990

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997
Bis(2-ethylhexyl)phthalate (CAS 117-81-7)	Listed: October 24, 2003
Butyl benzyl phthalate (CAS 85-68-7)	Listed: December 2, 2005
Di-n-butyl phthalate (CAS 84-74-2)	Listed: December 2, 2005
Hexachlorobenzene (CAS 118-74-1)	Listed: January 1, 1989

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

2,4-Dinitrotoluene (CAS 121-14-2)	Listed: August 20, 1999
2,6-Dinitrotoluene (CAS 606-20-2)	Listed: August 20, 1999
Di-n-butyl phthalate (CAS 84-74-2)	Listed: December 2, 2005

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

2,4-Dinitrotoluene (CAS 121-14-2)	Listed: August 20, 1999
2,6-Dinitrotoluene (CAS 606-20-2)	Listed: August 20, 1999
Benzene (CAS 71-43-2)	Listed: December 26, 1997
Bis(2-ethylhexyl)phthalate (CAS 117-81-7)	Listed: October 24, 2003
Di-n-butyl phthalate (CAS 84-74-2)	Listed: December 2, 2005
Nitrobenzene (CAS 98-95-3)	Listed: March 30, 2010

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

1,12-Benzoperylene (CAS 191-24-2)
1,2,4-Trichlorobenzene (CAS 120-82-1)
1,2:5,6-Dibenzanthracene (CAS 53-70-3)
1,2-Benzanthracene (CAS 56-55-3)
1,2-Dichlorobenzene (CAS 95-50-1)
1,3-Dichlorobenzene (CAS 541-73-1)
1,4-Dichlorobenzene (CAS 106-46-7)
2,4-Dichlorophenol (CAS 120-83-2)
2,4-Dimethylphenol (CAS 105-67-9)
2,4-Dinitrophenol (CAS 51-28-5)
2,4-Dinitrotoluene (CAS 121-14-2)
2,6-Dinitrotoluene (CAS 606-20-2)
2-Chloronaphthalene (CAS 91-58-7)
2-Methylnaphthalene (CAS 91-57-6)
2-Methylphenol (CAS 95-48-7)
2-Nitrophenol (CAS 88-75-5)
4-Bromophenyl phenyl ether (CAS 101-55-3)
4-Chloro-3-methylphenol (CAS 59-50-7)
4-Chloroaniline (CAS 106-47-8)
4-Chlorophenyl phenyl ether (CAS 7005-72-3)
4-Methylphenol (CAS 106-44-5)
Acenaphthene (CAS 83-32-9)
Acenaphthylene (CAS 208-96-8)
Anthracene (CAS 120-12-7)
Azobenzene (CAS 103-33-3)
Benzene (CAS 71-43-2)
Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Bis(2-chloro-1-methylethyl) ether (CAS 108-60-1)
Bis(2-chloroethoxy)methane (CAS 111-91-1)
Bis(2-chloroethyl)ether (CAS 111-44-4)
Bis(2-ethylhexyl)phthalate (CAS 117-81-7)
Butyl benzyl phthalate (CAS 85-68-7)
Carbazole (CAS 86-74-8)
Chrysene (CAS 218-01-9)
Dibenzofuran (CAS 132-64-9)
Diethyl phthalate (CAS 84-66-2)
Dimethyl phthalate (CAS 131-11-3)
Di-n-butyl phthalate (CAS 84-74-2)
Di-n-octyl phthalate (CAS 117-84-0)
Fluoranthene (CAS 206-44-0)
Fluorene (CAS 86-73-7)
Hexachloro-1,3-butadiene (CAS 87-68-3)
Hexachloroethane (CAS 67-72-1)

Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
 Isophorone (CAS 78-59-1)
 Methylene chloride (CAS 75-09-2)
 Naphthalene (CAS 91-20-3)
 Nitrobenzene (CAS 98-95-3)
 N-Nitrosodimethylamine (CAS 62-75-9)
 N-Nitrosodi-n-propylamine (CAS 621-64-7)
 Phenanthrene (CAS 85-01-8)
 Phenol (CAS 108-95-2)
 Pyrene (CAS 129-00-0)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	08-31-2021
Version #	01
NFPA ratings	Health: 4 Flammability: 3 Instability: 0

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