

1. Identification

Product identifier	Special Combined Matrix Spiking Mixture - CLP Semi	
Other means of identification		
Item	M-CRCLPS1X99	
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	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Carcinogenicity	Category 1B
	Reproductive toxicity	Category 1
	Specific target organ toxicity, repeated exposure	Category 2
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 Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer. May damage fertility or the unborn child. May cause 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. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. 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. In case of inadequate ventilation wear respiratory protection.

Response	If swallowed: Call a poison center/doctor if you feel unwell. If on skin: Wash with plenty of water. If inhaled: If breathing is difficult, 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. If exposed or concerned: Get medical advice/attention. Specific treatment (see this label). Rinse mouth. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If experiencing respiratory symptoms: Call a poison center/doctor. Take off contaminated clothing and wash before reuse. Collect spillage.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	0.2% of the mixture consists of component(s) of unknown acute oral toxicity. 98.5% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 98.4% 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; METHYLENE DICHLORIDE	75-09-2	>98
2-Chlorophenol		95-57-8	0.2
4-Chloro-3-methylphenol		59-50-7	0.2
4-Nitrophenol		100-02-7	0.2
Pentachlorophenol		87-86-5	0.2
Phenol		108-95-2	0.2
1,2,4-Trichlorobenzene		120-82-1	0.1
1,4-Dichlorobenzene		106-46-7	0.1
2,4-Dinitrotoluene		121-14-2	0.1
Acenaphthene		83-32-9	0.1
N-Nitrosodi-n-propylamine		621-64-7	0.1
Pyrene		129-00-0	0.1

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	If breathing is difficult, remove 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. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Take off contaminated clothing and wash 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	Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. May cause allergic respiratory reaction. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical	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	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	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up 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. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: 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. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

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 breathe mist or vapor. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid contact during pregnancy/while nursing. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

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

Components	Type	Value
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
1,4-Dichlorobenzene (CAS 106-46-7)	PEL	450 mg/m ³
2,4-Dinitrotoluene (CAS 121-14-2)	PEL	75 ppm
		1.5 mg/m ³
Pentachlorophenol (CAS 87-86-5)	PEL	0.5 mg/m ³
Phenol (CAS 108-95-2)	PEL	19 mg/m ³
		5 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
1,2,4-Trichlorobenzene (CAS 120-82-1)	Ceiling	5 ppm
1,4-Dichlorobenzene (CAS 106-46-7)	TWA	10 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
2,4-Dinitrotoluene (CAS 121-14-2)	TWA	0.2 mg/m3
Methylene chloride (CAS 75-09-2)	TWA	50 ppm
Pentachlorophenol (CAS 87-86-5)	TWA	0.5 mg/m3
Phenol (CAS 108-95-2)	TWA	5 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
1,2,4-Trichlorobenzene (CAS 120-82-1)	Ceiling	40 mg/m3
		5 ppm
2,4-Dinitrotoluene (CAS 121-14-2)	TWA	1.5 mg/m3
Pentachlorophenol (CAS 87-86-5)	TWA	0.5 mg/m3
Phenol (CAS 108-95-2)	Ceiling	60 mg/m3
		15.6 ppm
	TWA	19 mg/m3
		5 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Methylene chloride (CAS 75-09-2)	0.3 mg/l	Dichloromethane	Urine	*
Pentachlorophenol (CAS 87-86-5)	2 mg/g	Total PCP	Creatinine in urine	*
	5 mg/l	Free PCP	Plasma	*
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**

2,4-Dinitrotoluene (CAS 121-14-2)	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.

US - Minnesota Haz Subs: Skin designation applies

2,4-Dinitrotoluene (CAS 121-14-2)	Skin designation applies.
Phenol (CAS 108-95-2)	Skin designation applies.

US - Tennessee OELs: Skin designation

2,4-Dinitrotoluene (CAS 121-14-2)	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.

US ACGIH Threshold Limit Values: Skin designation

2,4-Dinitrotoluene (CAS 121-14-2)	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.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2,4-Dinitrotoluene (CAS 121-14-2)	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.

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.
Pentachlorophenol (CAS 87-86-5)	Can be absorbed through the skin.
Phenol (CAS 108-95-2)	Can be absorbed through the skin.

Appropriate engineering controls

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. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear a full-face respirator, if needed.

Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	Wear positive pressure self-contained breathing apparatus (SCBA).
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	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	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	15.5 % estimated
Flammability limit - upper (%)	66.4 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	579.97 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	1033 °F (556.11 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	1.32533 g/cm3 estimated
Percent volatile	98.7 % estimated
Specific gravity	1.33 estimated
VOC (Weight %)	98.7 % 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	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Toxic gas.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Harmful if swallowed.
Inhalation	Prolonged inhalation may be harmful. May cause damage to organs by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Skin irritation. May cause redness and pain. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Harmful if swallowed. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Components	Species	Test Results
1,2,4-Trichlorobenzene (CAS 120-82-1)		
Acute		
<i>Dermal</i>		
LD50	Mouse	300 mg/kg
	Rabbit	> 5000 mg/kg
	Rat	11356 mg/kg
<i>Oral</i>		
LD50	Mouse	766 mg/kg
	Rat	600 mg/kg
<i>Other</i>		
LD50	Mouse	1223 mg/kg
	Rat	6100 mg/kg
1,4-Dichlorobenzene (CAS 106-46-7)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 6000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5.07 mg/l, 4 Hours
<i>Oral</i>		
LD50	Guinea pig	7593 mg/kg
	Mouse	2950 mg/kg
	Rabbit	2812 mg/kg
	Rat	500 mg/kg
		500 - 1000 mg/kg
<i>Other</i>		
LD50	Mouse	2 g/kg
	Rat	2562 mg/kg
2,4-Dinitrotoluene (CAS 121-14-2)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 2500 mg/kg
<i>Inhalation</i>		
LC50	Rat	0.24 mg/l
<i>Oral</i>		
LD50	Cat	27 mg/kg
	Guinea pig	1300 mg/kg
	Mouse	750 mg/kg
	Rat	268 mg/kg
TD	Dog	1 mg/kg

Components	Species	Test Results
<i>Other</i> LD50	Mouse	> 500 mg/kg
2-Chlorophenol (CAS 95-57-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	740 mg/kg
<i>Oral</i>		
LD50	Mouse	670 mg/kg
	Rat	670 mg/kg
<i>Other</i>		
LD50	Rat	950 mg/kg
4-Chloro-3-methylphenol (CAS 59-50-7)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg
<i>Oral</i>		
LD50	Mouse	600 mg/kg
	Rat	3636 mg/kg
<i>Other</i>		
LD50	Mouse	70 mg/kg
	Rat	400 mg/kg
4-Nitrophenol (CAS 100-02-7)		
Acute		
<i>Oral</i>		
LD50	Mouse	380 mg/kg
	Rabbit	220 mg/kg
	Rat	220 - 620 mg/kg
<i>Other</i>		
LD50	Mouse	75 mg/kg
Methylene chloride (CAS 75-09-2)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Guinea pig	11600 ppm, 6 Hours 40.2 mg/l, 6 Hours
	Mouse	14400 ppm, 7 Hours 51.5 mg/l, 2 Hours 49.1 mg/l, 6 Hours 49 mg/l, 7 Hours
	Rat	2000 mg/l, 15 Minutes 88 mg/l, 900 Days 79 mg/l, 2 Hours 52 mg/l, 6 Hours
LD50	Mouse	16000 ppm, 7 Hours
<i>Oral</i>		
LD50	Rat	1600 mg/kg
<i>Other</i>		
LD50	Mouse	437 mg/kg

Components	Species	Test Results
N-Nitrosodi-n-propylamine (CAS 621-64-7)		
Acute		
<i>Oral</i>		
LD50	Rat	480 mg/kg
<i>Other</i>		
LD50	Hamster	600 mg/kg
	Rat	487 mg/kg
Pentachlorophenol (CAS 87-86-5)		
Acute		
<i>Dermal</i>		
LD50	Rat	96 mg/kg
<i>Oral</i>		
LD50	Rat	146 mg/kg
Phenol (CAS 108-95-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	850 mg/kg
	Rat	525 mg/kg
<i>Inhalation</i>		
LC50	Mouse	0.177 mg/l
	Rat	0.316 mg/l
<i>Oral</i>		
LD50	Cat	0.1 g/kg
	Dog	0.5 g/kg
	Mouse	270 mg/kg
	Rabbit	620 mg/kg
	Rat	317 mg/kg
<i>Other</i>		
LD50	Mouse	112 mg/kg
	Rabbit	180 mg/kg
	Rat	460 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	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

1,4-Dichlorobenzene (CAS 106-46-7)	2B Possibly carcinogenic to humans.
2,4-Dinitrotoluene (CAS 121-14-2)	2B Possibly carcinogenic to humans.
2-Chlorophenol (CAS 95-57-8)	2B Possibly carcinogenic to humans.
4-Chloro-3-methylphenol (CAS 59-50-7)	2B Possibly carcinogenic to humans.
Acenaphthene (CAS 83-32-9)	3 Not classifiable as to carcinogenicity to humans.
Methylene chloride (CAS 75-09-2)	2B Possibly carcinogenic to humans.
N-Nitrosodi-n-propylamine (CAS 621-64-7)	2B Possibly carcinogenic to humans.
Pentachlorophenol (CAS 87-86-5)	2B Possibly carcinogenic to humans.
Phenol (CAS 108-95-2)	3 Not classifiable as to carcinogenicity to humans.
Pyrene (CAS 129-00-0)	3 Not classifiable as to carcinogenicity to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

1,4-Dichlorobenzene (CAS 106-46-7)	Reasonably Anticipated to be a Human Carcinogen.
Methylene chloride (CAS 75-09-2)	Reasonably Anticipated to be a Human Carcinogen.

N-Nitrosodi-n-propylamine (CAS 621-64-7)

Reasonably Anticipated to be a Human Carcinogen.

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

Methylene chloride (CAS 75-09-2)

Cancer

Reproductive toxicity

May damage fertility or the unborn child.

Specific target organ toxicity - single exposure

Not classified.

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Not available.

Chronic effects

Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. May cause damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity

Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

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
1,4-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-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-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
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-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
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
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
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
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 No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

1,2,4-Trichlorobenzene	4.02
1,4-Dichlorobenzene	3.44
2,4-Dinitrotoluene	1.98
2-Chlorophenol	2.15
4-Chloro-3-methylphenol	3.1
4-Nitrophenol	1.91
Acenaphthene	3.92
Methylene chloride	1.25
N-Nitrosodi-n-propylamine	1.36
Pentachlorophenol	5.12
Phenol	1.46
Pyrene	4.88

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. 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 U List: Reference

1,4-Dichlorobenzene (CAS 106-46-7)	U072
2,4-Dinitrotoluene (CAS 121-14-2)	U105
2-Chlorophenol (CAS 95-57-8)	U048
4-Chloro-3-methylphenol (CAS 59-50-7)	U039
4-Nitrophenol (CAS 100-02-7)	U170
Methylene chloride (CAS 75-09-2)	U080
N-Nitrosodi-n-propylamine (CAS 621-64-7)	U111
Phenol (CAS 108-95-2)	U188

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

14. Transport information

DOT

UN number	UN1593
UN proper shipping name	Dichloromethane, solution, MARINE POLLUTANT
Transport hazard class(es)	
Class	6.1(PGIII)
Subsidiary risk	-
Label(s)	6.1
Packing group	III

Environmental hazards

Marine pollutant Yes
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions IB3, IP8, N36, T7, TP2
Packaging exceptions 153
Packaging non bulk 203
Packaging bulk 241

IATA

UN number UN1593
UN proper shipping name Dichloromethane solution
Transport hazard class(es)
Class 6.1(PGIII)
Subsidiary risk -
Packing group III
Environmental hazards No.
ERG Code 6L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed.
Cargo aircraft only Allowed.

IMDG

UN number UN1593
UN proper shipping name DICHLOROMETHANE SOLUTION, MARINE POLLUTANT
Transport hazard class(es)
Class 6.1(PGIII)
Subsidiary risk -
Packing group III
Environmental hazards
Marine pollutant Yes
EmS F-A, S-A
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

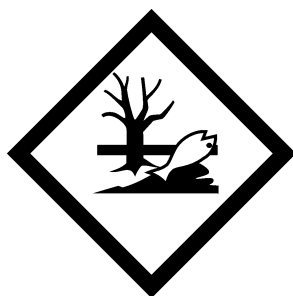
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

DOT



IATA; IMDG





15. Regulatory information

US federal regulations

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

All components are on the U.S. EPA TSCA Inventory List.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

1,2,4-Trichlorobenzene (CAS 120-82-1)	Listed.
2,4-Dinitrotoluene (CAS 121-14-2)	Listed.
2-Chlorophenol (CAS 95-57-8)	Listed.
4-Chloro-3-methylphenol (CAS 59-50-7)	Listed.
4-Nitrophenol (CAS 100-02-7)	Listed.
Acenaphthene (CAS 83-32-9)	Listed.
Methylene chloride (CAS 75-09-2)	Listed.
N-Nitrosodi-n-propylamine (CAS 621-64-7)	Listed.
Pentachlorophenol (CAS 87-86-5)	Listed.
Phenol (CAS 108-95-2)	Listed.
Pyrene (CAS 129-00-0)	Listed.

SARA 304 Emergency release notification

Phenol (CAS 108-95-2)	1000 LBS
Pyrene (CAS 129-00-0)	5000 LBS

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

Methylene chloride (CAS 75-09-2)	Cancer Heart Central nervous system Liver Skin irritation Eye irritation
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Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Phenol	108-95-2	1000		500 lbs	10000 lbs
Pyrene	129-00-0	5000		1000 lbs	10000 lbs

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Methylene chloride	75-09-2	>98
2-Chlorophenol	95-57-8	0.2
4-Chloro-3-methylphenol	59-50-7	0.2
Pentachlorophenol	87-86-5	0.2
1,4-Dichlorobenzene	106-46-7	0.1
2,4-Dinitrotoluene	121-14-2	0.1
N-Nitrosodi-n-propylamine	621-64-7	0.1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

1,2,4-Trichlorobenzene (CAS 120-82-1)
1,4-Dichlorobenzene (CAS 106-46-7)
2,4-Dinitrotoluene (CAS 121-14-2)
4-Nitrophenol (CAS 100-02-7)
Acenaphthene (CAS 83-32-9)
Methylene chloride (CAS 75-09-2)
Pentachlorophenol (CAS 87-86-5)
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.

US state regulations

US. Massachusetts RTK - Substance List

1,2,4-Trichlorobenzene (CAS 120-82-1)
1,4-Dichlorobenzene (CAS 106-46-7)
2,4-Dinitrotoluene (CAS 121-14-2)
2-Chlorophenol (CAS 95-57-8)
4-Chloro-3-methylphenol (CAS 59-50-7)
4-Nitrophenol (CAS 100-02-7)
Acenaphthene (CAS 83-32-9)
Methylene chloride (CAS 75-09-2)
N-Nitrosodi-n-propylamine (CAS 621-64-7)
Pentachlorophenol (CAS 87-86-5)
Phenol (CAS 108-95-2)
Pyrene (CAS 129-00-0)

US. New Jersey Worker and Community Right-to-Know Act

1,2,4-Trichlorobenzene (CAS 120-82-1)	500 LBS
1,4-Dichlorobenzene (CAS 106-46-7)	500 LBS
2,4-Dinitrotoluene (CAS 121-14-2)	500 LBS
2-Chlorophenol (CAS 95-57-8)	500 LBS
4-Chloro-3-methylphenol (CAS 59-50-7)	500 LBS
4-Nitrophenol (CAS 100-02-7)	500 LBS
Methylene chloride (CAS 75-09-2)	500 LBS
N-Nitrosodi-n-propylamine (CAS 621-64-7)	500 LBS
Pentachlorophenol (CAS 87-86-5)	500 LBS
Phenol (CAS 108-95-2)	500 LBS
Pyrene (CAS 129-00-0)	500 LBS

US. Pennsylvania RTK - Hazardous Substances

1,2,4-Trichlorobenzene (CAS 120-82-1)
1,4-Dichlorobenzene (CAS 106-46-7)
2,4-Dinitrotoluene (CAS 121-14-2)
2-Chlorophenol (CAS 95-57-8)
4-Chloro-3-methylphenol (CAS 59-50-7)
4-Nitrophenol (CAS 100-02-7)
Acenaphthene (CAS 83-32-9)
Methylene chloride (CAS 75-09-2)
N-Nitrosodi-n-propylamine (CAS 621-64-7)
Pentachlorophenol (CAS 87-86-5)
Phenol (CAS 108-95-2)
Pyrene (CAS 129-00-0)

US. Rhode Island RTK

1,2,4-Trichlorobenzene (CAS 120-82-1)
1,4-Dichlorobenzene (CAS 106-46-7)
2,4-Dinitrotoluene (CAS 121-14-2)
2-Chlorophenol (CAS 95-57-8)
4-Chloro-3-methylphenol (CAS 59-50-7)
4-Nitrophenol (CAS 100-02-7)
Acenaphthene (CAS 83-32-9)
Methylene chloride (CAS 75-09-2)
N-Nitrosodi-n-propylamine (CAS 621-64-7)
Pentachlorophenol (CAS 87-86-5)
Phenol (CAS 108-95-2)
Pyrene (CAS 129-00-0)

US. California Proposition 65

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

1,4-Dichlorobenzene (CAS 106-46-7)	Listed: January 1, 1989
2,4-Dinitrotoluene (CAS 121-14-2)	Listed: July 1, 1988
Methylene chloride (CAS 75-09-2)	Listed: April 1, 1988
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/Female reproductive toxin

2,4-Dinitrotoluene (CAS 121-14-2)	Listed: August 20, 1999
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US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

2,4-Dinitrotoluene (CAS 121-14-2)	Listed: August 20, 1999
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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)	Yes
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	Yes

*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	10-30-2014
Version #	01
NFPA ratings	Health: 2 Flammability: 1 Instability: 0

Disclaimer

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

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