SAFETY DATA SHEET

1. Identification

Product identifier **TCLP Semi-Volatiles Spiking Mixture**

Other means of identification

Item M-TCLP1SSB5

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 4
	Acute toxicity, inhalation	Category 4
	Serious eye damage/eye irritation	Category 2A
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Carcinogenicity	Category 1
	Reproductive toxicity	Category 1
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
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. Harmful if swallowed. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness. May cause cancer. May damage fertility or the unborn child. 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. Avoid breathing mist or vapor. 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 eye protection/face protection. 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 (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. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. 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. Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. 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	0.4% of the mixture consists of component(s) of unknown acute oral toxicity. 1% of the mixture consists of component(s) of unknown acute inhalation toxicity. 97.4% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 97.4% 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	%
Acetone		67-64-1	97.4
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-Dinitrotoluene		121-14-2	0.2
2-Methylphenol		95-48-7	0.2
3-Methylphenol	m-Cresol	108-39-4	0.2
4-Methylphenol		106-44-5	0.2
Hexachloro-1,3-butadiene		87-68-3	0.2
Hexachlorobenzene		118-74-1	0.2
Hexachloroethane		67-72-1	0.2
Nitrobenzene		98-95-3	0.2
Pentachlorophenol		87-86-5	0.2
Pyridine		110-86-1	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. 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.

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 vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. May cause an allergic skin reaction. Dermatitis. Rash.
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 all contaminated clothing immediately. 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	Alcohol resistant foam. Water fog. 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. Avoid inhalation of vapors and spray mists. 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.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. 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. 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. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. 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. Avoid inhalation of vapors and spray mists. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. 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. 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. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. 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).

8. Exposure controls/personal protection

Occupational exposure limits

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/m3
		75 ppm
2,4-Dinitrotoluene (CAS 121-14-2)	PEL	1.5 mg/m3
2-Methylphenol (CAS 95-48-7)	PEL	22 mg/m3
		5 ppm
3-Methylphenol (CAS 108-39-4)	PEL	22 mg/m3
		5 ppm
4-Methylphenol (CAS 106-44-5)	PEL	22 mg/m3
		5 ppm
Acetone (CAS 67-64-1)	PEL	2400 mg/m3
		1000 ppm
Hexachloroethane (CAS 67-72-1)	PEL	10 mg/m3
		1 ppm
Nitrobenzene (CAS 98-95-3)	PEL	5 mg/m3
		1 ppm
Pentachlorophenol (CAS 87-86-5)	PEL	0.5 mg/m3
Pyridine (CAS 110-86-1)	PEL	15 mg/m3

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

Components	Type	Value
		5 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
1,4-Dichlorobenzene (CAS 106-46-7)	TWA	10 ppm	
2,4-Dinitrotoluene (CAS 121-14-2)	TWA	0.2 mg/m3	
2-Methylphenol (CAS 95-48-7)	TWA	20 mg/m3	Inhalable fraction and vapor.
3-Methylphenol (CAS 108-39-4)	TWA	20 mg/m3	Inhalable fraction and vapor.
4-Methylphenol (CAS 106-44-5)	TWA	20 mg/m3	Inhalable fraction and vapor.
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Hexachloro-1,3-butadiene (CAS 87-68-3)	TWA	0.02 ppm	
Hexachlorobenzene (CAS 118-74-1)	TWA	0.002 mg/m3	
Hexachloroethane (CAS 67-72-1)	TWA	1 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.
Pyridine (CAS 110-86-1)	TWA	1 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2,4-Dinitrotoluene (CAS 121-14-2)	TWA	1.5 mg/m3
2-Methylphenol (CAS 95-48-7)	TWA	10 mg/m3
		2.3 ppm
3-Methylphenol (CAS 108-39-4)	TWA	10 mg/m3
		2.3 ppm
4-Methylphenol (CAS 106-44-5)	TWA	10 mg/m3
		2.3 ppm
Acetone (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm
Hexachloro-1,3-butadiene (CAS 87-68-3)	TWA	0.24 mg/m3
		0.02 ppm
Hexachloroethane (CAS 67-72-1)	TWA	10 mg/m3
		1 ppm
Nitrobenzene (CAS 98-95-3)	TWA	5 mg/m3
		1 ppm
Pentachlorophenol (CAS 87-86-5)	TWA	0.5 mg/m3
Pyridine (CAS 110-86-1)	TWA	15 mg/m3
		5 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
Nitrobenzene (CAS 98-95-3)	1.5 %	Methemoglobin	Hemoglobin in blood	*

* - 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.
2-Methylphenol (CAS 95-48-7)	Can be absorbed through the skin.
3-Methylphenol (CAS 108-39-4)	Can be absorbed through the skin.
4-Methylphenol (CAS 106-44-5)	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.
Nitrobenzene (CAS 98-95-3)	Can be absorbed through the skin.
Pentachlorophenol (CAS 87-86-5)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2,4-Dinitrotoluene (CAS 121-14-2)	Skin designation applies.
2-Methylphenol (CAS 95-48-7)	Skin designation applies.
3-Methylphenol (CAS 108-39-4)	Skin designation applies.
4-Methylphenol (CAS 106-44-5)	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.

US - Tennessee OELs: Skin designation

2,4-Dinitrotoluene (CAS 121-14-2)	Can be absorbed through the skin.
2-Methylphenol (CAS 95-48-7)	Can be absorbed through the skin.
3-Methylphenol (CAS 108-39-4)	Can be absorbed through the skin.
4-Methylphenol (CAS 106-44-5)	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.

US ACGIH Threshold Limit Values: Skin designation

2,4-Dinitrotoluene (CAS 121-14-2)	Can be absorbed through the skin.
2-Methylphenol (CAS 95-48-7)	Can be absorbed through the skin.
3-Methylphenol (CAS 108-39-4)	Can be absorbed through the skin.
4-Methylphenol (CAS 106-44-5)	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.
Nitrobenzene (CAS 98-95-3)	Can be absorbed through the skin.
Pentachlorophenol (CAS 87-86-5)	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.
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.

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-Methylphenol (CAS 95-48-7)	Can be absorbed through the skin.
3-Methylphenol (CAS 108-39-4)	Can be absorbed through the skin.
4-Methylphenol (CAS 106-44-5)	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.

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. Suitable gloves can be recommended by the glove supplier.
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	When using do not smoke. Keep away from food and drink. 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	-138.46 °F (-94.7 °C) estimated
Initial boiling point and boiling range	132.89 °F (56.05 °C) estimated
Flash point	-4.0 °F (-20.0 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	2.6 % estimated
Flammability limit - upper (%)	12.8 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	309.3 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	869 °F (465 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	0.80417 g/cm3 estimated
Explosive properties	Not explosive.

Flammability class	Flammable IB estimated
Oxidizing properties	Not oxidizing.
Percent volatile	98.2 % estimated
Specific gravity	0.8 estimated
VOC (Weight %)	99 % 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	Harmful if inhaled. May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Harmful if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Headache. May cause drowsiness and dizziness. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Harmful if inhaled. Harmful if swallowed. Narcotic effects. May cause an allergic skin reaction.

Components	Species	Test Results
1,4-Dichlorobenzene (CAS 106-46-7)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours
Inhalation		
Vapor		
LC50	Rat	> 5.07 mg/l, 4 Hours
Oral		
LD50	Rabbit	2830 mg/kg
	Rat	3790 mg/kg
2,4,5-Trichlorophenol (CAS 95-95-4)		
Acute		
Oral		
LD50	Rat	820 mg/kg
		0.82 g/kg
2,4,6-Trichlorophenol (CAS 88-06-2)		
Acute		
Oral		
LD50	Rat	820 mg/kg
2,4-Dinitrotoluene (CAS 121-14-2)		
Acute		
Dermal		
LD50	Rat	> 2500 mg/kg, Hours

Components	Species	Test Results
Inhalation		
Vapor or aerosol		
LC50	Rat	0.24 mg/l
Oral		
LD50	Mouse	750 mg/kg
	Rat	270 mg/kg
TD	Dog	1 mg/kg
2-Methylphenol (CAS 95-48-7)		
Acute		
Dermal		
LD50	Mouse	620 mg/kg
	Rabbit	1380 mg/kg
	Rat	620 mg/kg
Inhalation		
LC50	Mouse	0.179 mg/l, 2 Hours
Oral		
LD50	Rabbit	1800 mg/kg
	Rat	121 mg/kg
3-Methylphenol (CAS 108-39-4)		
Acute		
Dermal		
LD50	Rabbit	2050 mg/kg
	Rat	1100 mg/kg
Oral		
LD50	Rabbit	1400 mg/kg
	Rat	242 mg/kg
4-Methylphenol (CAS 106-44-5)		
Acute		
Dermal		
LD50	Rabbit	300 mg/kg
Oral		
LD50	Rabbit	620 mg/kg
	Rat	207 mg/kg
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Guinea pig	> 7426 mg/kg, 24 Hours
		> 9.4 ml/kg, 24 Hours
	Rabbit	> 7426 mg/kg, 24 Hours
		> 9.4 ml/kg, 24 Hours
Inhalation		
Vapor		
LC50	Rat	55700 ppm, 3 Hours
		132 mg/l, 3 Hours
LC50	Rat	76 mg/l, 4 Hours
Vapor		
LC50	Rat	50.1 mg/l
LC50	Rat	50.1 mg/l, 8 Hours

Components	Species	Test Results
Oral		
LD50	Mouse	5.2 g/kg
	Rat	5800 mg/kg
		2.2 ml/kg
Hexachloro-1,3-butadiene (CAS 87-68-3)		
Acute		
Dermal		
LD50	Rabbit	1211 mg/kg
Oral		
LD50	Guinea pig	90 mg/kg
	Hamster	960 mg/kg
	Mouse	46 mg/kg
	Rat	90 mg/kg
Hexachlorobenzene (CAS 118-74-1)		
Acute		
Oral		
LD50	Cat	1700 mg/kg
	Mouse	4000 mg/kg
	Rabbit	2600 mg/kg
	Rat	3500 mg/kg
Hexachloroethane (CAS 67-72-1)		
Acute		
Dermal		
LD50	Rabbit	> 32000 mg/kg
Oral		
LD50	Guinea pig	4970 mg/kg
	Rat	4460 mg/kg
Nitrobenzene (CAS 98-95-3)		
Acute		
Dermal		
LD50	Rabbit	760 mg/kg, 24 Hours
	Rat	2100 mg/kg, 14 Days
Oral		
LD50	-	640 mg/kg
	Rat	588 mg/kg
Pentachlorophenol (CAS 87-86-5)		
Acute		
Dermal		
LD50	Rat	96 mg/kg
Oral		
LD50	Rat	146 mg/kg
Pyridine (CAS 110-86-1)		
Acute		
Dermal		
LD50	Rabbit	1000 - 2000 mg/kg, 24 Hours
Inhalation		
Vapor		
LC50	Rat	9010 ppm, 1 Hours
		5400 ppm, 4 Hours

Components	Species	Test Results
LD50	Rat	9000 ppm, 1 Hours
Oral		
LD50	-	1500 mg/kg
	Guinea pig	4000 mg/kg
	Mouse	0.8 g/kg
	Rat	800 - 1600 mg/kg
		0.8 g/kg

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

Skin corrosion/irritation Prolonged skin contact may cause temporary 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.
2,4,5-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-Dinitrotoluene (CAS 121-14-2)	2B Possibly carcinogenic to humans.
Hexachloro-1,3-butadiene (CAS 87-68-3)	3 Not classifiable as to carcinogenicity to humans.
Hexachlorobenzene (CAS 118-74-1)	2B Possibly carcinogenic to humans.
Hexachloroethane (CAS 67-72-1)	2B Possibly carcinogenic to humans.
Nitrobenzene (CAS 98-95-3)	2B Possibly carcinogenic to humans.
Pentachlorophenol (CAS 87-86-5)	2B Possibly carcinogenic to humans.
Pyridine (CAS 110-86-1)	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.
2,4,6-Trichlorophenol (CAS 88-06-2)	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.
Nitrobenzene (CAS 98-95-3)	Reasonably Anticipated to be a Human Carcinogen.

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

Not listed.

Reproductive toxicity May damage fertility or the unborn child.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects 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
1,4-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

Components		Species	Test Results
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-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-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
3-Methylphenol (CAS 108-39-4)			
Aquatic			
Crustacea	EC50	Scud (Gammarus fasciatus)	7 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.9 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
Acetone (CAS 67-64-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4740 - 6330 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
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
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
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
Pyridine (CAS 110-86-1)			
Aquatic			
Fish	LC50	Chum salmon (Oncorhynchus keta)	3.7 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

Partition coefficient n-octanol / water (log Kow)	
1,4-Dichlorobenzene	3.44
2,4,5-Trichlorophenol	3.72
2,4,6-Trichlorophenol	3.69
2,4-Dinitrotoluene	1.98
2-Methylphenol	1.95
3-Methylphenol	1.96
4-Methylphenol	1.94
Acetone	-0.24
Hexachloro-1,3-butadiene	4.78
Hexachlorobenzene	5.73
Hexachloroethane	4.14
Nitrobenzene	1.85
Pentachlorophenol	5.12
Pyridine	0.65

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. 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.

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 UN1090
UN proper shipping name Acetone, solution (Acetone RQ = 5133 LBS) (Nitrobenzene)
Transport hazard class(es)
Class 3
Subsidiary risk -
Label(s) 3
Packing group II
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions IB2, T4, TP1
Packaging exceptions 150
Packaging non bulk 202
Packaging bulk 242

IATA

UN number UN1090
UN proper shipping name Acetone solution (Acetone)

Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3H
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	UN1090
UN proper shipping name	ACETONE SOLUTION (Acetone)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
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 established.

DOT

IATA; IMDG

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.

CERCLA Hazardous Substance List (40 CFR 302.4)

2,4,5-Trichlorophenol (CAS 95-95-4)	Listed.
2,4,6-Trichlorophenol (CAS 88-06-2)	Listed.
2,4-Dinitrotoluene (CAS 121-14-2)	Listed.
2-Methylphenol (CAS 95-48-7)	Listed.
3-Methylphenol (CAS 108-39-4)	Listed.

4-Methylphenol (CAS 106-44-5)	Listed.
Acetone (CAS 67-64-1)	Listed.
Hexachloro-1,3-butadiene (CAS 87-68-3)	Listed.
Hexachlorobenzene (CAS 118-74-1)	Listed.
Hexachloroethane (CAS 67-72-1)	Listed.
Nitrobenzene (CAS 98-95-3)	Listed.
Pentachlorophenol (CAS 87-86-5)	Listed.
Pyridine (CAS 110-86-1)	Listed.

SARA 304 Emergency release notification

2-Methylphenol (CAS 95-48-7)	100 LBS
Nitrobenzene (CAS 98-95-3)	1000 LBS

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

Not listed.

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	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
2-Methylphenol	95-48-7	100		1000 lbs	10000 lbs
Nitrobenzene	98-95-3	1000	10000 lbs		

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
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
Hexachlorobenzene	118-74-1	0.2
Hexachloroethane	67-72-1	0.2
Nitrobenzene	98-95-3	0.2
Pentachlorophenol	87-86-5	0.2

Other federal regulations

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

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-Dinitrotoluene (CAS 121-14-2)
2-Methylphenol (CAS 95-48-7)
3-Methylphenol (CAS 108-39-4)
4-Methylphenol (CAS 106-44-5)
Hexachloro-1,3-butadiene (CAS 87-68-3)
Hexachlorobenzene (CAS 118-74-1)
Hexachloroethane (CAS 67-72-1)
Nitrobenzene (CAS 98-95-3)
Pentachlorophenol (CAS 87-86-5)

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

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1)	6532

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1)	35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1)	6532

US state regulations

US - New Jersey RTK - Substances: Listed substance

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-Dinitrotoluene (CAS 121-14-2)
2-Methylphenol (CAS 95-48-7)
3-Methylphenol (CAS 108-39-4)
4-Methylphenol (CAS 106-44-5)
Acetone (CAS 67-64-1)
Hexachloro-1,3-butadiene (CAS 87-68-3)
Hexachlorobenzene (CAS 118-74-1)
Hexachloroethane (CAS 67-72-1)
Nitrobenzene (CAS 98-95-3)
Pentachlorophenol (CAS 87-86-5)
Pyridine (CAS 110-86-1)

US - Pennsylvania RTK - Hazardous Substances: Special hazard

1,4-Dichlorobenzene (CAS 106-46-7)
2,4,5-Trichlorophenol (CAS 95-95-4)
2,4,6-Trichlorophenol (CAS 88-06-2)
Hexachlorobenzene (CAS 118-74-1)
Pentachlorophenol (CAS 87-86-5)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

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

1,4-Dichlorobenzene (CAS 106-46-7)
2,4,6-Trichlorophenol (CAS 88-06-2)
2,4-Dinitrotoluene (CAS 121-14-2)
2-Methylphenol (CAS 95-48-7)
3-Methylphenol (CAS 108-39-4)
4-Methylphenol (CAS 106-44-5)
Acetone (CAS 67-64-1)
Hexachloro-1,3-butadiene (CAS 87-68-3)
Hexachloroethane (CAS 67-72-1)
Nitrobenzene (CAS 98-95-3)
Pyridine (CAS 110-86-1)

US. Massachusetts RTK - Substance List

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-Dinitrotoluene (CAS 121-14-2)
2-Methylphenol (CAS 95-48-7)
3-Methylphenol (CAS 108-39-4)
4-Methylphenol (CAS 106-44-5)
Acetone (CAS 67-64-1)
Hexachloro-1,3-butadiene (CAS 87-68-3)
Hexachlorobenzene (CAS 118-74-1)
Hexachloroethane (CAS 67-72-1)
Nitrobenzene (CAS 98-95-3)
Pentachlorophenol (CAS 87-86-5)
Pyridine (CAS 110-86-1)

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

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-Dinitrotoluene (CAS 121-14-2)
2-Methylphenol (CAS 95-48-7)
3-Methylphenol (CAS 108-39-4)
4-Methylphenol (CAS 106-44-5)
Hexachloro-1,3-butadiene (CAS 87-68-3)

Hexachlorobenzene (CAS 118-74-1)
Hexachloroethane (CAS 67-72-1)
Nitrobenzene (CAS 98-95-3)
Pentachlorophenol (CAS 87-86-5)
Pyridine (CAS 110-86-1)

US. Pennsylvania RTK - Hazardous Substances

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-Dinitrotoluene (CAS 121-14-2)
2-Methylphenol (CAS 95-48-7)
3-Methylphenol (CAS 108-39-4)
4-Methylphenol (CAS 106-44-5)
Acetone (CAS 67-64-1)
Hexachloro-1,3-butadiene (CAS 87-68-3)
Hexachlorobenzene (CAS 118-74-1)
Hexachloroethane (CAS 67-72-1)
Nitrobenzene (CAS 98-95-3)
Pentachlorophenol (CAS 87-86-5)
Pyridine (CAS 110-86-1)

US. Pennsylvania Worker and Community Right-to-Know Law

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-Dinitrotoluene (CAS 121-14-2)
2-Methylphenol (CAS 95-48-7)
3-Methylphenol (CAS 108-39-4)
4-Methylphenol (CAS 106-44-5)
Acetone (CAS 67-64-1)
Hexachloro-1,3-butadiene (CAS 87-68-3)
Hexachlorobenzene (CAS 118-74-1)
Hexachloroethane (CAS 67-72-1)
Nitrobenzene (CAS 98-95-3)
Pentachlorophenol (CAS 87-86-5)
Pyridine (CAS 110-86-1)

US. Rhode Island RTK

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-Dinitrotoluene (CAS 121-14-2)
2-Methylphenol (CAS 95-48-7)
3-Methylphenol (CAS 108-39-4)
4-Methylphenol (CAS 106-44-5)
Acetone (CAS 67-64-1)
Hexachloro-1,3-butadiene (CAS 87-68-3)
Hexachlorobenzene (CAS 118-74-1)
Hexachloroethane (CAS 67-72-1)
Nitrobenzene (CAS 98-95-3)
Pentachlorophenol (CAS 87-86-5)
Pyridine (CAS 110-86-1)

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
2,4,6-Trichlorophenol (CAS 88-06-2)	Listed: January 1, 1988
2,4-Dinitrotoluene (CAS 121-14-2)	Listed: July 1, 1988
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
Nitrobenzene (CAS 98-95-3)	Listed: August 26, 1997
Pentachlorophenol (CAS 87-86-5)	Listed: January 1, 1990
Pyridine (CAS 110-86-1)	Listed: May 17, 2002

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

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

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

2,4-Dinitrotoluene (CAS 121-14-2)	Listed: August 20, 1999
Nitrobenzene (CAS 98-95-3)	Listed: March 30, 2010

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
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)	Yes
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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 09-03-2014

Revision date 10-20-2016

Version # 02

NFPA ratings Health: 2
Flammability: 3
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.

Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.

This Safety Data Sheet (SDS) is intended only for use with Chem Service, Inc. products and should not be relied on for use with materials from any other supplier even if the chemical name(s) on the product are identical! Whenever using an SDS for a solution or mixture the user should refer to the SDS for every component of the solution or mixture. Chem Service warrants that this SDS is based upon the most current information available to Chem Service at the time it was last revised. THIS WARRANTY IS EXCLUSIVE, AND CHEM SERVICE, INC. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. This SDS is provided gratis and CHEM SERVICE, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES.

This product is furnished FOR LABORATORY USE ONLY.

Revision Information This document has undergone significant changes and should be reviewed in its entirety.