



# Safety Data Sheet

(11310)

## HEMPEL'S CURING AGENT 98000

Protective Clothing	General Hazard	DOT

Conforms to ANSI Z400.1-2010 Standard - HPR - Canada

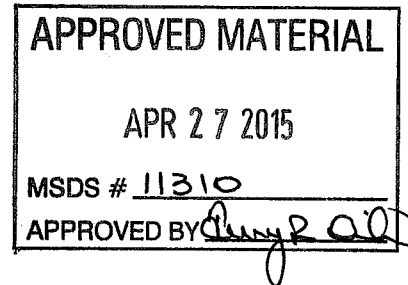
### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name : HEMPEL'S CURING AGENT 98000  
 Product identity : 9800000000  
 Product type : curing agent.

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Field of application : used only as part of two- or multi component products.  
 Ready-for-use mixture : (see base component)  
 Identified uses : Industrial/Professional use



#### 1.3 Details of the supplier of the safety data sheet

Company details : Hempel (Canada), Inc.  
 #111 19097 26th Ave  
 Surrey, B.C V3S 3V7  
 Phone: 604-536-4275  
 Fax: 604-536-4375  
 Toll free: 1 800 661 3201  
 E-mail Hempel@Hempel.com

Manufacturer : HEMPEL (USA), Inc., 600 Conroe Park North Drive, Conroe, Texas 77303, USA

#### 1.4 Emergency telephone number (with hours of operation)

For Transportation Emergencies : CHEMTREC: **1-800-424-9300** (Toll-free in the U.S., Canada and the U.S. Virgin Islands) **703-527-3887**  
 (24 hours)  
 For calls originating elsewhere (Collect calls are accepted). Contract number: CCN10384  
 To preserve the effectiveness of arrangements for providing accurate and timely emergency response information, the basic identifying information (shipper name or contract number) must be included on shipping papers.  
 If the purchaser of this product is going to be shipping this product to other locations, the purchaser must arrange for its own Emergency Information Provider to respond to transport incidents. Hempel's 24 hour response contract does not cover non-Hempel shipments.

For all other information : In Canada toll free calling available: 1-800-661-3201 or (604)-273-3200  
 (8 AM - 5 PM CST) See Section 4 of the safety data sheet (first aid measures).

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

GHS Classification : FLAMMABLE LIQUIDS - Category 3  
 SKIN CORROSION/IRRITATION - Category 2  
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
 SKIN SENSITIZATION - Category 1  
 TOXIC TO REPRODUCTION (Unborn child) - Category 2

#### 2.2 Label elements

**SECTION 2: Hazards identification**

Hazard pictograms :



Signal word :

Danger

Hazard statements :

H226 - Flammable liquid and vapor.  
 H318 - Causes serious eye damage.  
 H315 - Causes skin irritation.  
 H317 - May cause an allergic skin reaction.  
 H361 - Suspected of damaging the unborn child.

Precautionary statements :

Prevention :

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response :

IF exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical attention. 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 or physician.

Storage :

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

Disposal :

Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements :

None known.

**2.3 Other hazards**

Hazards not otherwise classified : None known.

**SECTION 3: Composition/information on ingredients**

Product definition :

Mixture

Physical state :

Liquid.

Product/ingredient name	Identifiers	%	GHS Classification
polymers with 3-[(2-aminoethyl)amino]propyl Ph silsesquioxanes, methoxy-terminated	477725-72-7	50 - 75	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
xylene	1330-20-7	5 - 10	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2
3-(2-aminoethylamino)propyltrimethoxysilane	1760-24-3	3 - 5	ACUTE TOXICITY (inhalation) - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1
dimethyl dimethoxy silane methanol	1112-39-6 67-56-1	1 - 3 0.5 - 1	ACUTE TOXICITY (oral) - Category 4 FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3
toluene	108-88-3	0.5 - 1	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (central nervous system (CNS) and eyes) (oral) - Category 1 FLAMMABLE LIQUIDS - Category 2 SKIN CORROSION/IRRITATION - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2



### SECTION 3: Composition/information on ingredients

			SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1
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Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Occupational exposure limits, if available, are listed in Section 8.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

General :	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).
Eye contact :	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek immediate medical attention.
Inhalation :	Remove to fresh air. Keep person warm and at rest. If unconscious, place in recovery position and seek medical advice.
Skin contact :	Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion :	If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat.
Protection of first-aiders :	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

#### 4.2 Most important symptoms and effects, both acute and delayed

##### Potential acute health effects

Eye contact :	Causes serious eye damage.
Inhalation :	May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact :	Causes skin irritation. May cause an allergic skin reaction.
Ingestion :	May cause burns to mouth, throat and stomach.

##### Over-exposure signs/symptoms

Eye contact :	Adverse symptoms may include the following: pain watering redness
Inhalation :	No specific data.
Skin contact :	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion :	Adverse symptoms may include the following: stomach pains

#### 4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : If gasses have been inhaled, from the decomposition of the product, symptoms may be delayed.



## SECTION 4: First aid measures

Specific treatments : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Extinguishing media : Recommended: alcohol resistant foam, CO<sub>2</sub>, powders, water spray.  
Not to be used: waterjet.

### 5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides

### 5.3 Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Exclude sources of ignition and be aware of explosion hazard. Ventilate the area. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training.

### 6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.

### 6.3 Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilled product.

### 6.4 Reference to other sections

See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. No sparking tools should be used.

Avoid inhalation of vapour, dust and spray mist. Avoid contact with skin and eyes. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Appropriate personal protective equipment: see Section 8. Always keep in containers made from the same material as the original one.



**SECTION 7: Handling and storage**

**7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep out of the reach of children. Keep away from: Oxidizing agents, strong alkalis, strong acids. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

**7.3 Specific end use(s)**

See separate Product Data Sheet for recommendations or industrial sector specific solutions. This product may be applied using several application techniques and methods of handling may be different for each. Application techniques include [but are not limited to] brushing, rolling, and spray application [conventional, HPLV, airless, pleural component or aerosol can]. Avoid the breathing of vapors and, if spraying, do not breath spray mist or aerosols.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

Product/ingredient name	List name	TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
		ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	
xylene	US ACGIH 4/2014	100	434	-	150	651	-	-	-	-	
	AB 4/2009	100	434	-	150	651	-	-	-	-	
	BC 4/2014	100	-	-	150	-	-	-	-	-	
	ON 1/2013	100	434	-	150	651	-	-	-	-	
	QC 1/2014	100	434	-	150	651	-	-	-	-	
ethylbenzene	US ACGIH 4/2014	20	-	-	-	-	-	-	-	-	
	AB 4/2009	100	434	-	125	543	-	-	-	-	
	BC 4/2014	20	-	-	-	-	-	-	-	-	
	ON 1/2013	20	-	-	-	-	-	-	-	-	
	QC 1/2014	100	434	-	125	543	-	-	-	-	
methanol	US ACGIH 4/2014	200	262	-	250	328	-	-	-	-	[1]
	AB 4/2009	200	262	-	250	328	-	-	-	-	[1]
	BC 4/2014	200	-	-	250	-	-	-	-	-	[1]
	ON 1/2013	200	262	-	250	328	-	-	-	-	[1]
	QC 1/2014	200	262	-	250	328	-	-	-	-	[1]
toluene	US ACGIH 4/2014	20	-	-	-	-	-	-	-	-	
	AB 4/2009	50	188	-	-	-	-	-	-	-	[1]
	BC 4/2014	20	-	-	-	-	-	-	-	-	
	ON 1/2013	20	-	-	-	-	-	-	-	-	
	QC 1/2014	50	188	-	-	-	-	-	-	-	[1]

[1]Absorbed through skin.

**Recommended monitoring procedures**

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**8.2 Exposure controls**

**Appropriate engineering controls**

Provide local exhaust and general ventilation systems to maintain airborne concentrations below OSHA, ACGIH, and manufacturer recommended exposure limits. Local exhaust ventilation is preferred because it prevents contaminant dispersion into work areas by controlling it at its source. Use local and general exhaust ventilation to effectively remove and prevent buildup of mists/vapors/fumes generated from the handling of this product.

Note: Local exhaust ventilation is designed to capture an emitted contaminant at or near its source, before the contaminant has a chance to disperse into the workplace air. General exhaust ventilation, also called dilution ventilation, is different from local exhaust ventilation because instead of capturing emissions at their source and removing them from the air, general exhaust ventilation allows the contaminant to be emitted into the workplace air and then dilutes the concentration of the contaminant to an acceptable level (e.g., to the PEL or below).

**Individual protection measures**



## SECTION 8: Exposure controls/personal protection

- General :** Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. Safety eyewear should be used when there is a likelihood of exposure.
- Hygiene measures :** Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.
- Eye/face protection :** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Hand protection :** Wear chemical-resistant gloves in combination with 'basic' employee training. The quality of the chemical-resistant protective gloves must be chosen as a function of the specific workplace concentrations and quantity of hazardous substances.
- Since the actual work situation is unknown. Supplier of gloves should be contacted in order to find the appropriate type. Below listed glove(s) should be regarded as generic advice:
- Recommended: Silver Shield / 4H gloves, polyvinyl alcohol (PVA), Viton®  
Not recommended: nitrile rubber, neoprene rubber, butyl rubber, natural rubber (latex), polyvinyl chloride (PVC)
- Body protection :** Personal protective equipment for the body should be selected based on the task being performed and the risks involved handling this product.
- Wear suitable protective clothing. Always wear protective clothing when spraying.
- Respiratory protection :** If working areas have insufficient ventilation, wear half or totally covering mask equipped with gas filter of type Organic Vapor, when grinding use particle filter of type P95, P99 or P100. When spraying use a combined filter (organic vapor / HEPA or organic vapor / P100 type). Be sure to use approved/certified respirator or equivalent. Always wear an air-fed respirator when spraying in a continuous and prolonged work situation (e.g. hood with supply of fresh or compressed air or a full face, powered air purifying filter).

Protective clothing (pictograms) :



Note: Application of paint products by spraying requires additional safety precautions: Full body suit, Full face respirator with air supplied.

## Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Physical state :** Liquid.
- Odor :** Non-characteristic.
- pH :** Testing not relevant or not possible due to nature of the product.
- Melting point/freezing point :** Testing not relevant or not possible due to nature of the product.
- Boiling point/boiling range :** Testing not relevant or not possible due to nature of the product.
- Flash point :** Closed cup: 38°C (100.4°F)
- Evaporation rate :** Testing not relevant or not possible due to nature of the product.
- Flammability :** Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
- Upper/lower flammability or explosive limits :** 0.6 - 12 vol %
- Vapor pressure :** 1.3 kPa This is based on data for the following ingredient: methoxy functional phenyl/methyl siloxane



## SECTION 9: Physical and chemical properties

Vapor density :	Testing not relevant or not possible due to nature of the product.
Relative density :	1.116 g/cm <sup>3</sup>
Solubility(ies) :	Very slightly soluble in the following materials: cold water and hot water.
Partition coefficient (LogKow) :	Testing not relevant or not possible due to nature of the product.
Auto-ignition temperature :	Testing not relevant or not possible due to nature of the product.
Decomposition temperature :	Testing not relevant or not possible due to nature of the product.
Viscosity :	Testing not relevant or not possible due to nature of the product.
Explosive properties :	Not available.
Oxidizing properties :	Testing not relevant or not possible due to nature of the product.

### 9.2 Other information

Solvent(s) % by weight (Included exempt solvent(s)):	9.7 % (w/w)
Water % by weight :	Weighted average: 0 %
VOC content (Coatings) :	0.904 lbs/gal (108.4 g/l)
VOC content (Regulatory) :	0.904 lbs/gal (108.4 g/l)
TOC Content (Volatile) :	Weighted average: 88 g/l
Solvent Gas :	Weighted average: 0.028 m <sup>3</sup> /l

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability

The product is stable.

### 10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

### 10.5 Incompatible materials

Reactive or incompatible with the following materials: oxidizing materials.  
Slightly reactive or incompatible with the following materials: reducing materials.

### 10.6 Hazardous decomposition products

When exposed to high temperatures (i.e. in case of fire) harmful decomposition products may be formed:  
Decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides



**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

Exposure to component solvent vapor concentrations may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.

Direct contact with the eyes can cause irreversible damage, including blindness.

**Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	6350 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
3-(2-aminoethylamino) propyltrimethoxysilane methanol	LD50 Oral	Rat	2413 mg/kg	-
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	8 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
toluene	LD50 Oral	Rat	5600 mg/kg	-
	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	636 mg/kg	-

**Acute toxicity estimates**

Route	ATE value
Oral	8855.7 mg/kg
Dermal	12451.6 mg/kg
Inhalation (gases)	76011.2 ppm
Inhalation (vapors)	86.07 mg/l

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure
xylene	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams
	Eyes - Severe irritant	Rabbit	-	15 milligrams
3-(2-aminoethylamino) propyltrimethoxysilane				
dimethyl dimethoxy silane methanol	Skin - Mild irritant	Rabbit	-	500 milligrams
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams
toluene	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams
	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams

**Carcinogen Classification**

Product/ingredient name	IARC	NTP	OSHA
xylene	3	-	-
toluene	3	-	-

**Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
methanol	Category 1	Oral	central nervous system (CNS) and eyes
toluene	Category 3	Not applicable.	Narcotic effects

**Specific target organ toxicity (repeated exposure)**



**SECTION 11: Toxicological information**

Product/ingredient name	Category	Route of exposure	Target organs
toluene	Category 2	Not determined	Not determined

**Aspiration hazard**

Product/ingredient name	Result
toluene	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure**

Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential chronic health effects**

Sensitization : Contains 3-(2-aminoethylamino)propyltrimethoxysilane. May produce an allergic reaction.

Other information : No additional known significant effects or critical hazards.

**SECTION 12: Ecological information****12.1 Toxicity**

Do not allow to enter drains or watercourses. Harmful to aquatic life with long lasting effects.

When spilled, this product may act as an oil, causing a film, sheen, emulsion, or sludge at or beneath the surface of a body of water. Oils of any kind can cause: (a) drowning of waterfowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility; (b) lethal effect on fish by coating gill surfaces, preventing respiration; (c) potential fish kills resulting from alteration in biochemical oxygen demand; (d) asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom; and (e) adverse aesthetic effects of fouled shoreline and beaches.

Product/ingredient name	Result	Species	Exposure
methanol toluene	Chronic NOEC 9.96 mg/l Marine water Chronic NOEC <500000 µg/l Fresh water Chronic NOEC 1000 µg/l Fresh water	Algae - Ulva pertusa Algae - Pseudokirchneriella subcapitata Daphnia - Daphnia magna	96 hours 96 hours 21 days

**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
ylene	-	>60 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ylene	-	-	Readily

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
ylene	3.12	8.1 - 25.9	low
methanol	-0.77	<10	low
toluene	2.73	90	low

**12.4 Mobility in soil**

Soil/water partition coefficient (K<sub>oc</sub>) : No known data available in our database.

Mobility : No known data available in our database.

**12.5 Other adverse effects**

No known significant effects or critical hazards.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.





The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7 and Section 8 for additional handling information and protection of employees.

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

Transport may take place according to national regulation or TDG for transport by road and by train, IMDG for transport by sea, IATA for Air shipment.

	14.1 UN no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env*	Additional information
DOT Code	UN1263	PAINT	3 - 	III	No.	ERG : 128 <u>Reportable quantity</u> (xylene) [79.2 lbs / 671.57 kg [158.97 gal / 601.76 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
TDG Code	UN1263	PAINT	3 - 	III	No.	-
IMDG Code	UN1263	PAINT	3 - 	III	No.	<u>Emergency schedules (EmS)</u> F-E, S-E
IATA Code	UN1263	PAINT	3 - 	III	No.	-

Code : Classification

PG\* : Packing group

Env.\* : Environmental hazards

**14.6 Special precautions for user**

**Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable.



**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

U.S. Federal regulations : All components are listed or exempted.

**Canada**

WHMIS (Canada) : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).  
Class D-1B: Material causing immediate and serious toxic effects (Toxic).  
Class D-2A: Material causing other toxic effects (Very toxic).  
Class D-2B: Material causing other toxic effects (Toxic).



Canadian lists : **CEPA Toxic substances:** None of the components are listed.  
**Canadian ARET:** None of the components are listed.  
**Canadian NPRI:** The following components are listed: Xylene (all isomers)  
**Alberta Designated Substances:** None of the components are listed.  
**Ontario Designated Substances:** None of the components are listed.  
**Quebec Designated Substances:** None of the components are listed.  
**CEPA Toxic Substances (Schedule I):** Particulate Matter (spray mist – during spray application), Volatile organic compounds (evaporating solvents).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**SECTION 16: Other information**

Remarks : Warning! If you scrape, sand, or remove old paint, you may release lead dust. LEAD is TOXIC.

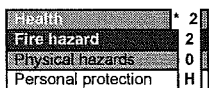
Validation : Validated by US - HSE Products Coordinator on 3/11/2015.

**GHS Classification**

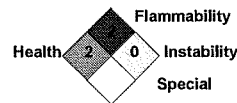
Procedure used to derive the classification.

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
TOXIC TO REPRODUCTION (Unborn child) - Category 2	Calculation method

Hazardous Material Information System (U.S.A.)



National Fire Protection Association (U.S.A.)



Personal Protective Equipment (PPE) shown in this section is a suggestion. Since conditions vary from one work location to another consult the facility safety & health program. Customer or end user is responsible to evaluate worker exposure conditions at the site of application and determine the appropriate PPE suitable for workers at that particular facility or location.

**Abbreviations and acronyms :**

- ANSI = American National Standards Institute
- HCS = Hazardous Communication System
- TSCA = Toxic Substances Control Act
- CFR = Code of federal Regulations
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- OSHA = United States Occupational Health and Safety Administration
- NIOSH = National Institute for Occupational Safety and Health
- ACGIH = American Conference of Industrial Hygienists
- IARC = International Agency for Research on Cancer.
- NTP = National Toxicology Program
- ATE = Acute Toxicity Estimate
- OECD = Organisation for Economic Co-operation and Development
- BCF = Bioconcentration Factor
- DOT = United States Department of Transportation
- ERG = Emergency Response Guide
- TDG = Transport of Dangerous Goods, Canada
- SCT = Transportation & Communications Ministry, Mexico
- IMDG = International Maritime Dangerous Goods
- IATA = International Air Transport Association
- WHMIS = Workplace Hazardous Material Information System
- CEPA = Canadian Environmental Protection Act
- NOM = Norma Oficial Mexicana
- IDLH = Immediate Danger to Life and Health

**Notice to reader**

▣ Indicates information that has changed from previously issued version.

**SECTION 16: Other information**

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*