

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations according to Canadian Hazardous Products Regulations (HPR) Date of issue: 03/19/2015, Revision 08/14/2018

Version: 1.0

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

#### 1.1. Product identifier

Product form : Mixture

Product name : OMEGALAQ<sup>TM</sup> Liquid Temperature Lacquers 475 °F (246 °C), 488 °F (253 °C), 500 °F (260 °C)

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

Use of the substance/mixture : Temperature indicator

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

OMEGA Engineering, INC. 800 Connecticut Ave, Suite 5N01 Norwalk, CT 06854 USA (800)-848-4286 or (203)-359-1660 Fax: (203)-359-7700 info@omega.com

### 1.4. Emergency telephone number

Emergency number 24-hour emergency: ChemTel U.S.: 1-800-255-3924 International: +1-813-248-0585

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

## Classification in accordance with the Globally Harmonized Standard

Skin Irrit. 2 H315 Eye Irrit. 2A H319 Muta. 2 H341 Carc. 1B H350 Repr. 1B H360 STOT SE 3 H336 STOT SE 3 H336 STOT RE 2 H373

Full text of H-phrases: see section 16

## 2.2 Label elements

## **GHS-US** labelling

Hazard pictograms (GHS-US)



: Danger

S07 GH

Signal word (GHS-US)

Hazard statements (GHS-US) : H315 - Causes skin irritation

H319 - Causes skill mitation
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H341 - Suspected of causing genetic defects

H350 - May cause cancer

H360 - May damage fertility or the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P260 - Do not breathe mist, vapours

P264 - Wash hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area

P280 - Wear eye protection, protective clothing, protective gloves

P302+P352 - If on skin: Wash with plenty of water

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> P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P308+P313 - If exposed or concerned: Get medical advice/attention

P312 - Call a doctor if you feel unwell

P314 - Get medical advice/attention if you feel unwell

P321 - Specific treatment (see First aid measures on this label) P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention

P362 - Take off contaminated clothing and wash before reuse P403+P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation

#### 2.3. Other hazards

### Unknown acute toxicity (GHS US)

- 1.22 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
- 1.47 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
- 1.47 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

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

#### **Substance** 3.1.

Not applicable

#### 3.2. **Mixture**

Name	Product identifier	% (w/w)	GHS-US classification
1-bromopropane	(CAS No) 106-94-5	68.58 - 70.70 in 475 °F, 488 °F 68.68 - 70.81 in 500 °F	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 1B, H360 STOT SE 3, H336 STOT SE 3, H335 STOT RE 2, H373
Phenolphthalein	(CAS No) 77-09-8	22.18 in 475 °F 22.75 in 488 °F 27.19 in 500 °F	Muta. 2, H341 Carc. 1B, H350 Repr. 2, H361
1,1,1 Tris Ethane	(CAS No) 27955-94-8	3.23 - 3.26 in 475 °F 0 in 488 °F, 500 °F	Aquatic Chronic 2, H411
Toluene	(CAS No) 108-88-3	1.17 - 1.22 in 475 °F, 488 °F 0.01 in 500 °F	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
1,2-epoxybutane	(CAS No) 106-88-7	< 0.49	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335 Aquatic Chronic 3, H412

Full text of H-phrases: see section 16

## **SECTION 4: First aid measures**

## Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a

POISON CENTER or doctor/physician if you feel unwell.

: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation First-aid measures after skin contact

occurs: Get medical advice/attention.

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to First-aid measures after eye contact

do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

: Drink plenty of water. Immediately call a POISON CENTER or doctor/physician. Do NOT First-aid measures after ingestion

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

Symptoms/injuries : Suspected of causing genetic defects. May cause cancer. May damage fertility or the unborn

child. May cause damage to organs through prolonged or repeated exposure.

Symptoms/injuries after inhalation : May cause respiratory irritation. May cause drowsiness or dizziness.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

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

All treatments should be based on observed signs and symptoms of distress in the patient.

## **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Sand. Water fog.

Unsuitable extinguishing media : Do not use a heavy water stream.

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

Fire hazard : Burning produces irritating, toxic and noxious fumes.

Explosion hazard : Product is not explosive.

Reactivity : No dangerous reactions known.

## 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Wear fire/flame resistant/retardant clothing. Wear a self contained breathing apparatus.

## **SECTION 6: Accidental release measures**

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

General measures : Avoid all eye and skin contact and do not breathe vapour and mist.

## 6.1.1. For non-emergency personnel

Protective equipment : Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.

Emergency procedures : Evacuate unnecessary personnel.

## 6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.

Emergency procedures : Stop leak if safe to do so. Ventilate area.

## 6.2. Environmental precautions

Avoid release to the environment.

## 6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container. Do not allow

minor leaks or spills to accumulate on walking surfaces.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take

up in non-combustible absorbent material and shove into container for disposal.

## 6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

## **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Use personal protective equipment as required. Do not

handle until all safety precautions have been read and understood. Avoid breathing mist,

vapours. Use only outdoors or in a well-ventilated area.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work.

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## 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Keep only in the original container in a cool well ventilated place.

Incompatible products : Strong acids. Strong bases.
Incompatible materials : Heat sources. Direct sunlight.
Prohibitions on mixed storage : Incompatible materials.

## 7.3. Specific end use(s)

Temperature indicator.

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

### 8.1. Control parameters

OMEGALAQ™ Liquid Temperature Lacquers 475 °F (246 °C), 488 °F (253 °C), 500 °F (260 °C)			
ACGIH	Not applicable		
OSHA	Not applicable		
Phenolphthalein (77-09-8)			
ACGIH	Not applicable		
OSHA	Not applicable		
1,1,1 Tris Ethane (27955-94-	8)		
ACGIH	Not applicable		
OSHA	Not applicable		
Toluene (108-88-3)			
ACGIH	ACGIH TWA (ppm)	20 ppm	
ACGIH	Remark (ACGIH)	Visual impair; female repro;	
OSHA	OSHA PEL (TWA) (ppm)	200 ppm	
OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm	
OSHA	Remark (OSHA)	(2) See Table Z-2.	
Canada (Quebec)	VECD (mg/m³)	565 mg/m³	
Canada (Quebec)	VECD (ppm)	150 ppm	
Canada (Quebec)	VEMP (mg/m³)	377 mg/m³	
Canada (Quebec)	VEMP (ppm)         100 ppm		
1,2-epoxybutane (106-88-7)			
ACGIH	Not applicable		
OSHA	Not applicable		
1-bromopropane (106-94-5)			
ACGIH	ACGIH TWA (ppm) 10 ppm		
ACGIH	Remark (ACGIH) Liver & embryo/fetal dam; A3		
OSHA	Not applicable		

## 8.2. Exposure controls

Appropriate engineering controls : Avoid creating mist or spray. Avoid splashing. Either local exhaust or general room ventilation

is usually required.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Use rubber gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing. Long sleeved protective clothing.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is

recommended. Use an approved respirator equipped with oil/mist cartridges.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state : Liquid

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Appearance : Opaque liquid.
Colour : Variable.
Odour : Solvent.

Odour threshold : No data available No data available Relative evaporation rate (butyl acetate=1) : No data available Melting point : No data available Freezing point : No data available Boiling point : No data available Flash point : None (CC) Auto-ignition temperature : No data available : No data available Decomposition temperature Flammability (solid, gas) : No data available Vapour pressure : No data available

Relative vapour density at 20 °C : No data available Relative density : No data available Solubility : No data available Log Pow : No data available Log Kow : No data available : No data available Viscosity, kinematic Viscosity, dynamic : No data available Explosive properties : No data available Oxidising properties : No data available Explosive limits : No data available

9.2 Other information

VOC content : 68.6 – 70%

## **SECTION 10: Stability and reactivity**

## 10.1. Reactivity

No dangerous reactions known.

## 10.2. Chemical stability

Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

## 10.4. Conditions to avoid

Direct sunlight. Heat.

## 10.5. Incompatible materials

Strong bases. Strong acids

## 10.6. Hazardous decomposition products

Burning produces irritating, toxic and noxious fumes. Carbon dioxide. Carbon monoxide. Hydrogen halide. Bromides.

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity : Not classified

Phenolphthalein (77-09-8)			
LD50 oral rat	> 2000 mg/kg bodyweight		
1,1,1 Tris Ethane (27955-94-8)			
LD50 oral rat	> 5000 mg/kg bodyweight		
LD50 dermal rat	> 2000 mg/kg bodyweight		
Toluene (108-88-3)			
LD50 oral rat	5580 mg/kg EU Method B.1 (Acute Toxicity (Oral))		
LC50 inhalation rat (mg/l)	> 20 mg/l/4h OECD Guideline 403 (Acute Inhalation Toxicity)		
ATE CLP (oral)	5580.000 mg/kg bodyweight		

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1,2-epoxybutane (106-88-7)			
LD50 oral rat	1100 μl/kg		
ATE CLP (oral)	500.000 mg/kg bodyweight		
ATE CLP (dermal)	1100.000 mg/kg bodyweight		
ATE CLP (gases)	4500.000 ppmv/4h		
ATE CLP (vapours)	11.000 mg/l/4h		
ATE CLP (dust,mist)	1.500 mg/l/4h		
1-bromopropane (106-94-5)			
LD50 oral rat	> 2000		
LD50 dermal rat	> 2000 mg/kg		
LC50 inhalation rat (ppm)	14374 ppm/4h		
ATE CLP (gases)	14374.000 ppmv/4h		

Skin corrosion/irritation: Causes skin irritation.Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : May cause cancer.

Phenolphthalein (77-09-8)			
IARC group 2B - Possibly carcinogenic to humans			
National Toxicology Program (NTP) Status 3 - Reasonably anticipated to be Human Carcinogen			
Toluene (108-88-3)			
IARC group 3 - Not classifiable			
1,2-epoxybutane (106-88-7)			
IARC group 2B - Possibly carcinogenic to humans			

Reproductive toxicity : May damage fertility or the unborn child.

Specific target organ toxicity (single

exposure)

: May cause respiratory irritation. May cause drowsiness or dizziness.

**Specific target organ toxicity (repeated** : May cause damage to organs through prolonged or repeated exposure. exposure)

Toluene (108-88-3)		
LOAEL (inhalation, rat, gas, 90 days) 1250 ppmv/6h/day		
NOAEL (oral, rat, 90 days)	625 mg/kg bodyweight/day EU Method B.26. Increased relative weights of liver and kidney are interpreted as toxicologically insignificant differences in the absence of histological findings.	
NOAEL (inhalation, rat, gas, 90 days)	300 ppmv/6h/day OECD Guideline 453	
1-bromopropane (106-94-5)		
NOAEL (inhalation, rat, dust/mist/fume, 90 days)	1 mg/l/6h/day	

Aspiration hazard : Not classified

## Potential adverse human health effects and symptoms

Symptoms/injuries after inhalation : May cause respiratory irritation. May cause drowsiness or dizziness.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Likely routes of exposure : Skin and eye contact;Inhalation

## **SECTION 12: Ecological information**

## 12.1 Toxicity

Phenolphthalein (77-09-8)			
EC50 Daphnia 1	> 100 mg/l		
1,1,1 Tris Ethane (27955-94-8)			
LC50 fish 1	>= 18.7 no mortalities		
EC50 Daphnia 1	> 18 mg/l		
ErC50 (algae) 8.6 mg/l			
NOEC (acute)	18.7 mg/l		
NOEC chronic crustacea	0.16 mg/l 21 d		

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1,1,1 Tris Ethane (27955-94-8)		
NOEC chronic algae	0.23 mg/l 72-hour	
Toluene (108-88-3)		
LC50 fish 1	5.5 mg/l	
EC50 Daphnia 2	3.78 mg/l	
ErC50 (algae)	134 mg/l	
LOEC (chronic)	2.77 mg/l	
NOEC chronic fish	1.39 mg/l	
NOEC chronic crustacea	0.74 mg/l	
1,2-epoxybutane (106-88-7)		
LC50 fish 1	> 100 mg/l 96 h	
EC50 Daphnia 1	70 mg/l 48 h	
ErC50 (algae)	> 500 mg/l 72 h	
1-bromopropane (106-94-5)		
EC50 Daphnia 1	203 mg/l 24 h	
ErC50 (algae)	52.4 mg/l	

## 12.2. Persistence and degradability

1,1,1 Tris Ethane (27955-94-8)				
Persistence and degradability  Not readily biodegradable.				
Biodegradation	8 %			
Toluene (108-88-3)	Toluene (108-88-3)			
Persistence and degradability Readily biodegradable.				
1,2-epoxybutane (106-88-7)				
Persistence and degradability Readily biodegradable.				
1-bromopropane (106-94-5)				
Persistence and degradability	Readily biodegradable.			

## 12.3. Bioaccumulative potential

Phenolphthalein (77-09-8)		
Log Kow 2.4		
1,1,1 Tris Ethane (27955-94-8)		
Log Kow	3.88	
Toluene (108-88-3)		
Bioconcentration factor (BCF REACH) 90		
Log Kow	2.73	
1,2-epoxybutane (106-88-7)		
Log Pow 0.86		
1-bromopropane (106-94-5)		
BCF fish 1 11.29 L/kg wwt		
Log Pow 2.16		

## 12.4. Mobility in soil

No additional information available

## 12.5. Other adverse effects

No additional information available

## **SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

Waste treatment methods : Do not dispose in household garbage. Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

## **SECTION 14: Transport information**

In accordance with DOT and TDG

Not considered a dangerous good for transport regulations

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Proper Shipping Name (ADR) : Not applicable

#### Transport by sea

No additional information available

#### Air transport

No additional information available

## **SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

### Phenolphthalein (77-09-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 1,1,1 Tris Ethane (27955-94-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag P - P - indicates a commenced PMN substance.

### Toluene (108-88-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's 1000 lb

List of Lists)

## 1,2-epoxybutane (106-88-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's 100 lb

List of Lists)

#### 1-bromopropane (n-propyl bromide) (106-94-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

## 15.2. International regulations

## CANADA

		<i>.</i>	
Dhan	alnhth	alain /7	7-09-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

## 1,1,1 Tris Ethane (27955-94-8)

Listed on the Canadian NDSL (Non-Domestic Substances List)

WHMIS Classification Uncontrolled product according to WHMIS classification criteria

## Toluene (108-88-3)

Listed on the Canadian DSL (Domestic Substances List) inventory.

## 1,2-epoxybutane (106-88-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

## 1-bromopropane (n-propyl bromide) (106-94-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

## **EU-Regulations**

## Phenolphthalein (77-09-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

## 1,1,1 Tris Ethane (27955-94-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

## Toluene (108-88-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

## 1,2-epoxybutane (106-88-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

## 1-bromopropane (n-propyl bromide) (106-94-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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## National regulations

## OMEGALAQ™ Liquid Temperature Lacquers 475 °F (246 °C), 488 °F (253 °C), 500 °F (260 °C)

All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS). All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL). All ingredients are listed in the Toxic Substances Control Act (TSCA).

### 15.3. US State regulations

Phenolphthalein (77-09-8)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)	
Yes	No	No	No		
Toluene (108-88-3)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)	
No	Yes	Yes	Yes	7000	
1-bromopropane (n-propyl	1-bromopropane (n-propyl bromide) (106-94-5)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)	
No	Yes	Yes	Yes		

## Phenolphthalein (77-09-8)

U.S. - New Jersey - Right to Know Hazardous Substance List

## Toluene (108-88-3)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

## 1,2-epoxybutane (106-88-7)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

## **SECTION 16: Other information**

Indication of changes

Data sources

- : Original Document.
- : ACGIH 2000.

Canadian Centre for Occupational Health and Safety. Accessed at: <a href="http://www.ccohs.ca/oshanswers/legisl/whmis\_classifi.html">http://www.ccohs.ca/oshanswers/legisl/whmis\_classifi.html</a>.

ESIS (European chemincal Substances Information System; accessed at: <a href="http://esis.jrc.ec.europa.eu/index.php?PGM=cla">http://esis.jrc.ec.europa.eu/index.php?PGM=cla</a>.

European Chemicals Agency (ECHA) Registered Substances list. Accessed at http://echa.europa.eu/. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

TSCA Chemical Substance Inventory. Accessed at

http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html.

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Abbreviations and acronyms

: ACGIH (American Conference of Government Industrial Hygienists).

ATE: Acute Toxicity Estimate.

CAS (Chemical Abstracts Service) number. CLP: Classification, Labelling, Packaging.

EC50: Environmental Concentration associated with a response by 50% of the test population.

GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).

LD50: Lethal Dose for 50% of the test population.
OSHA: Occupational Safety & Health Administration.

PBT: Persistent, Bioaccumulative, Toxic. STEL: Short Term Exposure Limits. TSCA: Toxic Substances Control Act. TWA: Time Weight Average.

Other information : None.

NFPA health hazard : 2 - Intense or continued exposure could cause temporary

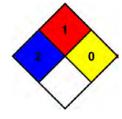
incapacitation or possible residual injury unless prompt

medical attention is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions,

and not reactive with water.



## Full text of H-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 2	Flammable liquids, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations according to Canadian Hazardous Products Regulations (HPR)

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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