

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: 03/12/2015, Revision 08/14/2018 Version: 1.0

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

1.1. Product identifier

Trade name

: OMEGALAQ[™] Liquid Temperature Lacquers 950 °F (510 °C) Green, 1000 °F (538 °C) Pink Brown

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
Skin Sens. 1	H317
Muta. 1B	H340
Carc. 1B	H350
Repr. 1B	H360
STOT SE 3	H335
STOT SE 3	H336
STOT RE 2	H373
Aquatic Chronic 3	H412

Full text of H-phrases: see section 16

2.2 Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



10/00/0015	
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, spray, vapours
Hazard statements (GHS-US) :	 H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H335 - May cause respiratory irritation H336 - May cause drowsiness or dizziness H340 - May cause 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 H412 - Harmful to aquatic life with long lasting effects
Signal word (GHS-US)	Danger

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)

P264 - Wash hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P272 - Contaminated work clothing must not be allowed out of the workplace P273 - Avoid release to the environment P280 - Wear eye protection, protective clothing, protective gloves P302+P352 - If on skin: Wash with plenty of water 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 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse P362+P364 - Take off contaminated clothing and wash it before reuse P403+P233 - Store in a well-ventilated place. Keep container tightly closed P405 - Store locked up P501 - Dispose of contents/container to Dispose in a safe manner in accordance with local/national regulations

2.3. Other hazards

2.4 Unknown acute toxicity (GHS-US)

0.5 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

0.5 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
1-bromopropane	(CAS No) 106-94-5	71.44 - 73.65 all	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
Molybdenum trioxide	(CAS No) 1313-27-5	16.93 in 950 °F 4.57 in 1000 °F	Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335
potassium chromate	(CAS No) 7789-00-6	0.54 - 0.61 in 950 °F 0.67 - 0.74 in 1000 °F	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1B, H350 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Toluene	(CAS No) 108-88-3	0.61 - 0.64 all	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	< 0.52 all	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

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)

SECTION 4: First aid measures

4.1. Description of first aid measures

4.1. Description of first aid measures	
First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
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.
First-aid measures after skin contact	: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Drink plenty of water. Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
4.2. Most important symptoms and effec	s, both acute and delayed
Symptoms/injuries	: May damage fertility or the unborn child. Causes damage to organs. Suspected of causing cancer. May cause genetic defects.
Symptoms/injuries after inhalation	: May cause respiratory irritation. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: May cause irritation of the mucous membranes.

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.

SECTIO	SECTION 5: Firefighting measures		
5.1.	Extinguishing media		
Suitable	extinguishing media	:	Carbon dioxide. Dry powder. Foam. Sand. Water fog.
Unsuitab	le extinguishing media	:	Do not use a heavy water stream.
5.2.	Special hazards arising from the sub	ost	ance or mixture
Fire haza	ırd	:	Burning produces irritating, toxic and noxious fumes.
Explosion	hazard	:	Product is not explosive.
Reactivity	4	:	No dangerous reactions known.
5.3.	Advice for firefighters		
Firefighti	ng 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.
Protectio	n 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. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment

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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Methods for cleaning up
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: 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	 Avoid breathing mist, spray, vapours. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.	
7.2. Conditions for safe storage, incl	uding any incompatibilities	
Storage conditions	. Keen container tightly closed. Keen only in the original container in a cool well ventilated place	

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™ Liqu	OMEGALAQ™ Liquid Temperature Lacquers 950 °F (510 °C) Green, 1000 °F (538 °C) Pink Brown	
ACGIH	Not applicable	
OSHA	Not applicable	
1,2-epoxybutane (106-88-7)		
ACGIH	Not applicable	
OSHA Not applicable		
1-bromopropane (10		

1-bromopropane (100-54-5)			
ACGIH	ACGIH TWA (ppm)	10 ppm	
ACGIH	Remark (ACGIH)	Liver & embryo/fetal dam; A3	
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/m ³)	565 mg/m³
Canada (Quebec)	VECD (ppm)	150 ppm
Canada (Quebec)	VEMP (mg/m ³)	377 mg/m³
Canada (Quebec)	VEMP (ppm)	100 ppm

potassium chromate (7789-00-6)	
ACGIH	Not applicable
OSHA	Not applicable

Molybdenum trioxide (1313-27-5)	
ACGIH	Not applicable
OSHA	Not applicable

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)

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.
Other information	: Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

	enennear propertiee
Physical state	: Liquid
Colour	: Green. pink. brown.
Odour	: Solvent.
Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: 510 - 538 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 96 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
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
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

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.

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)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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 D50 oral rat > 2000 LD50 dermal rat > 2000 mg/kg LD50 dermal rat > 2000 mg/kg LC50 inhalation rat (ppm) 14374 ppm/4h		
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 ILD50 oral rat LD50 dermal rat > 2000 mg/kg		
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 I-bromopropane (106-94-5) LD50 oral rat > 2000 LD50 dermal rat > 2000 mg/kg		
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)		
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 LD50 dermal rat > 2000 LD50 dermal rat > 2000 mg/kg		
ATE CLP (dust,mist) 1.500 mg/l/4h 1-bromopropane (106-94-5) LD50 oral rat > 2000 LD50 dermal rat > 2000 mg/kg		
1-bromopropane (106-94-5) LD50 oral rat > 2000 LD50 dermal rat > 2000 mg/kg		
LD50 oral rat > 2000 LD50 dermal rat > 2000 mg/kg		
LD50 dermal rat > 2000 mg/kg		
LC50 inhalation rat (ppm) 14374 ppm/4h		
ATE CLP (gases) 14374.000 ppmv/4h		
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		
potassium chromate (7789-00-6) LD50 dermal rabbit > 2000 mg/kg Read across category approach		
LC50 inhalation rat (mg/l) 99 mg/m ³ 4 h, read across category approach		
Molybdenum trioxide (1313-27-5)		
LD50 oral rat > 2000 mg/kg		
LD50 dermal rat > 2000 mg/kg bodyweight		
LC50 inhalation rat (mg/l) > 3.92 mg/l/4h		
Skin corrosion/irritation : Causes skin irritation.		
Serious eye damage/irritation : Causes serious eye irritation.		
Respiratory or skin sensitisation : May cause an allergic skin reaction.		
Germ cell mutagenicity : May cause genetic defects.		
Carcinogenicity : May cause cancer.		
1,2-epoxybutane (106-88-7)		
IARC group 2B - Possibly carcinogenic to humans		
Toluene (108-88-3)		
IARC group 3 - Not classifiable		
Reproductive toxicity : May damage fertility or the unborn child.		
Specific target organ toxicity (single : May cause respiratory irritation. May cause drowsiness or dizziness.		
xposure)		
Specific target organ toxicity (repeated : May cause damage to organs through prolonged or repeated exposure. exposure)		
1-bromopropane (106-94-5)		
NOAEL (inhalation, rat, dust/mist/fume, 90 1 mg/l/6h/day		
days)		
Toluene (108-88-3)		
LOAEL (inhalation, rat, gas, 90 days) 1250 ppmv/6h/day		
	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		
Aspiration hazard : Not classified		
Potential adverse human health effects and symptoms		
Symptoms/injuries after inhalation : May cause respiratory irritation. May cause drowsiness or dizziness.		
2/03/2015 EN (English)	6/1	

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)

Symptoms/injuries after skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: May cause irritation of the mucous membranes.
Likely routes of exposure	: Skin and eye contact;Inhalation

SECTION 12: Ecological information

12.1 Toxicity Ecology - water

: Harmful to aquatic life with long lasting effects.

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
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
potassium chromate (7789-00-6)	
LC50 fish 1	58.5 mg/l Brachydanio rerio, read across category approach
EC50 Daphnia 1	0.035 mg/l Read across category approach
Molybdenum trioxide (1313-27-5)	
LC50 fish 1	>= 43.3 (≤ 58) mg/l
NOEC (chronic)	> 87.8 mg/l
12.2. Persistence and degradability	
OMEGALAQ [™] Liquid Temperature Lacqu	ers 950 °F (510 °C) Green, 1000 °F (538 °C) Pink Brown
Persistence and degradability May cause long-term adverse effects in the environment.	
1,2-epoxybutane (106-88-7)	
Persistence and degradability	Readily biodegradable.
1-bromopropane (106-94-5)	

Toluene (108-88-3)

Persistence and degradability Readily biodegradable.

Readily biodegradable.

12.3. Bioaccumulative potential

Persistence and degradability

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
Toluene (108-88-3)	
Bioconcentration factor (BCF REACH)	90
Log Kow	2.73

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

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)

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 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 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 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) Potassium chromate (7789-00-6) Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313 EPA TSCA Regulatory Flag R - R - indicates a substance that is the subject of a Section 6 risk management rule under TSCA Molybdenum trioxide (1313-27-5) Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

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.
Toluene (108-88-3)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Potassium chromate (7789-00-6)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Molybdenum trioxide (1313-27-5)
Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

1,2-epoxybutane (106-88-7)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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)

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

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)

Potassium chromate (7789-00-6)

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

Molybdenum trioxide (1313-27-5)

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

National regulations

OMEGALAQ™ Liquid Temperature Lacquers 950 °F (510 °C) Green, 1000 °F (538 °C) Pink Brown 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

1-bromopropane (n-prop	yl 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	
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

1,2-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

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

Potassium chromate (7789-00-6)

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

U.S. - Pennsylvania - List of Hazardous Substances

SECTION 16: Other information

Indication of changes

: Original document.

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)

Data sources	: ACGIH 2000.
	Canadian Centre for Occupational Health and Safety. Accessed at: <u>http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html</u> .
	ESIS (European chemincal Substances Information System; accessed at: http://esis.jrc.ec.europa.eu/index.php?PGM=cla.
	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.
Abbreviations and acronyms	: ACGIH (American Conference of Governement 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 Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1		
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1		
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. 1B	Germ cell mutagenicity, Category 1B		
Repr. 1B	Reproductive toxicity, Category 1B		
Repr. 2	Reproductive toxicity, Category 2		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
Skin Sens. 1	Sensitisation — Skin, category 1		
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		

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)

H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause 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
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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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