SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	**Imperial Scale Remover (4360-84, 4360-88)**
Other means of identification	Not available
Recommended use	Remover
Recommended restrictions	None known.
Manufacturer information	Nu-Calgon 2611 Schuetz Road St. Louis, MO 63043 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHEMTREC)
Supplier	See above.

2. Hazards Identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Reproductive toxicity	Category 1B
Environmental hazards	Not classified.	
WHMIS 2015 defined hazards	Not classified	

Label elements

Signal word	Danger
Hazard statement	May be corrosive to metals. Causes skin irritation. Causes serious eye irritation. May damage fertility or the unborn child.
Precautionary statement	
Prevention	Keep only in original packaging. Wear protective gloves, protective clothing and eye protection. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Response	Absorb spillage to prevent material-damage. IF ON SKIN: Wash with plenty of water. Specific treatment (see information on this label). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. IF exposed or concerned: Get medical attention.
Storage	Store locked up. Store in a corrosion resistant container with a resistant inner liner.
Disposal	Dispose of container in accordance with local, regional, national and international regulations.
WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)	None known
WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)	None known
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Ethanol, 2-butoxy-		111-76-2	0.1-1*
Ethylene glycol		107-21-1	0.1-1*

Chemical name	Common name and synonyms	CAS number	%
Potassium iodide		7681-11-0	0.1-1*
Sulfamic acid		5329-14-6	80-100*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments

US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.
*CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

Inhalation

If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Skin contact

IF ON SKIN: Wash with plenty of water. Specific treatment (see information on this label). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Ingestion

Rinse mouth. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious or is convulsing. Obtain medical attention.

Most important symptoms/effects, acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

General information

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. Avoid contact with eyes and skin. Keep out of reach of children. IF exposed or concerned: Get medical advice.

5. Fire Fighting Measures

Suitable extinguishing media

Water spray. Foam. Powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions

Use water spray to cool unopened containers.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

Hazardous combustion products

May include and are not limited to: Oxides of carbon. Oxides of sulfur.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

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

Methods and materials for containment and cleaning up

Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

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. Avoid contact with eyes, skin, and clothing. Pregnant or breastfeeding women must not handle this product. Provide adequate ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink.

Conditions for safe storage, including any incompatibilities

Avoid moisture. Store locked up. Store in a corrosion resistant container with a resistant inner liner. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	97 mg/m3
		20 ppm
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m3

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	20 ppm	
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol.
		50 ppm	Vapor.
	STEL	20 mg/m3	Particulate.
	TWA	10 mg/m3	Particulate.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	20 ppm	
Ethylene glycol (CAS 107-21-1)	STEL	10 mg/m3	Aerosol, inhalable.
		50 ppm	Vapor fraction
	TWA	25 ppm	Vapor fraction
Potassium iodide (CAS 7681-11-0)	TWA	0.01 ppm	Inhalable fraction and vapor.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	20 ppm	
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol.
Potassium iodide (CAS 7681-11-0)	TWA	0.01 ppm	Inhalable fraction and vapor.

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	97 mg/m3	
		20 ppm	
Ethylene glycol (CAS 107-21-1)	Ceiling	127 mg/m3	Vapor and mist.
		50 ppm	Vapor and mist.

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol.

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

Components	Type	Value
Ethanol, 2-butoxy- (CAS 111-76-2)	PEL	240 mg/m3
		50 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	20 ppm	
Ethylene glycol (CAS 107-21-1)	STEL	10 mg/m3	Aerosol, inhalable.
		50 ppm	Vapor fraction
	TWA	25 ppm	Vapor fraction
Potassium iodide (CAS 7681-11-0)	TWA	0.01 ppm	Inhalable fraction and vapor.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	24 mg/m3
		5 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Ethanol, 2-butoxy- (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US. NIOSH: Pocket Guide to Chemical Hazards

Ethanol, 2-butoxy- (CAS 111-76-2) Can be absorbed through the skin.

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

Ethanol, 2-butoxy- (CAS 111-76-2) Can be absorbed through the skin.

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Impervious gloves. Confirm with reputable supplier first.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. As required by employer code.

Respiratory protection Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards Not applicable.

General hygiene considerations 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. When using do not eat or drink.

9. Physical and Chemical Properties

Appearance	Crystals
Physical state	Solid.
Form	Solid.
Color	Blue
Odor	Odorless
Odor threshold	Not available.
pH	~ 1 (solution)

Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and Reactivity

Reactivity	May be corrosive to metals. This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Do not mix with other chemicals. Keep away from excessive heat and moisture.
Incompatible materials	Strong oxidizing agents. Metals.
Hazardous decomposition products	May include and are not limited to: Oxides of sulfur. Oxides of carbon.

11. Toxicological Information

Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Information on likely routes of exposure	
Ingestion	May cause stomach distress, nausea or vomiting.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity

Components	**Species**	**Test Results**
Ethanol, 2-butoxy- (CAS 111-76-2)		
Acute		
Dermal		
LD50	Guinea pig	7.3 ml/kg, 4 Days, ECHA

Components	Species	Test Results
		0.3 ml/kg, 24 Hours, ECHA
		0.2 ml/kg, 24 Hours, ECHA
	Rabbit	> 2000 mg/kg, 24 Hours, ECHA
		1060 mg/kg, 24 Hours, ECHA
		841 mg/kg, 24 Hours, ECHA
		667 mg/kg, 24 Hours, ECHA
		560 ml/kg, 24 Hours, ECHA
		450 ml/kg, 24 Hours, ECHA
		435 mg/kg, 24 Hours, ECHA
		400 mg/kg, HSDB
		0.7 ml/kg, 24 Hours, ECHA
		0.6 ml/kg, ECHA
	Rat	> 2000 mg/kg, 24 Hours, ECHA
Inhalation		
LC50	Mouse	700 mg/L, 7 Hours, HSDB
		700 ppm, 7 Hours, HSDB
	Rabbit	400 ppm, 7 Hours, ECHA
	Rat	> 900 ppm, ECHA
		> 800 ppm, 4 Hours, ECHA
		900 ppm, ECHA
		800 ppm, 4 Hours, ECHA
		486 ppm, 4 Hours, ECHA
		450 ppm, 4 Hours, ECHA
Oral		
LD50	Dog	> 695 mg/kg, ECHA
	Guinea pig	1414 mg/kg
		1200 mg/kg, ECHA
	Mouse	2005 mg/kg, ECHA
		1519 mg/kg
		1200 mg/kg, HSDB
	Rabbit	320 mg/kg, HMIRA
	Rat	1000 - 2000 mg/kg, ECHA
		560 - 3000 mg/kg, ECHA
		530 - 2800 mg/kg
		2600 mg/kg, ECHA
		2420 mg/kg, ECHA
		1746 mg/kg
		1480 mg/kg, ECHA
		880 mg/kg, ECHA
		615 mg/kg, ECHA
Ethylene glycol (CAS 107-21-1)		
Acute		
Dermal		
LD50	Mouse	> 3500 mg/kg, ECHA
	Rabbit	9530 mg/kg, HSDB
Inhalation		
LC50	Rat	> 2.5 mg/L, 6 Hours, ECHA
		2725 mg/m3, 4 hr, HSDB

Components	Species	Test Results
Oral		
LD50	Cat	1670 mg/kg, CCID - New Zealand
		1650 mg/kg, HSDB
	Dog	> 8.8 g/kg, HSDB
		5500 mg/kg, HSDB
	Guinea pig	6600 mg/kg, CCOHS
		8.2 g/kg, HSDB
	Human	1110 - 1665 mg/kg, HSDB
	Mouse	14.6 g/kg, HSDB
	Rabbit	5000 mg/kg, CCOHS
	Rat	> 10000 mg/kg, ECHA
		7712 mg/kg, ECHA
		5.9 g/kg, HSDB
Potassium iodide (CAS 7681-11-0)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	3118 mg/kg, ECHA
Sulfamic acid (CAS 5329-14-6)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours, ECHA
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	2140 mg/kg, ECHA

Skin corrosion/irritation	Causes skin irritation.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Causes serious eye irritation.
Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.

Respiratory or skin sensitization

ACGIH sensitization

Propylene oxide (CAS 75-56-9)	Dermal sensitization

Canada - Alberta OELs: Irritant

Ethanol, 2-butoxy- (CAS 111-76-2)	Irritant
Ethylene glycol (CAS 107-21-1)	Irritant

Canada - British Columbia OELs: Respiratory or skin sensitiser

Propylene oxide (CAS 75-56-9)	Capable of causing respiratory, dermal or conjunctival sensitization.

Canada - Manitoba OELs Hazard: Dermal sensitization

Propylene oxide (CAS 75-56-9)	Dermal sensitization

Canada - Saskatchewan OELs Hazard Data: Sensitiser

Propylene oxide (CAS 75-56-9)	Sensitizer.

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity See below.

ACGIH Carcinogens

Crystalline silica (CAS 14808-60-7)	A2 Suspected human carcinogen.
Ethanol, 2-butoxy- (CAS 111-76-2)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Ethylene oxide (CAS 75-21-8)	A2 Suspected human carcinogen.
Propylene oxide (CAS 75-56-9)	A3 Confirmed animal carcinogen with unknown relevance to humans.

Canada - Alberta OELs: Carcinogen category

Crystalline silica (CAS 14808-60-7)	Suspected human carcinogen.
Ethylene oxide (CAS 75-21-8)	Suspected human carcinogen.

Canada - Manitoba OELs: carcinogenicity

2-BUTOXYETHANOL (EGBE) (CAS 111-76-2)	Confirmed animal carcinogen with unknown relevance to humans.
ETHYLENE OXIDE (CAS 75-21-8)	Suspected human carcinogen.
PROPYLENE OXIDE (CAS 75-56-9)	Confirmed animal carcinogen with unknown relevance to humans.
SILICA, CRYSTALLINE-.ALPHA.-QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7)	Suspected human carcinogen.

Canada - Quebec OELs: Carcinogen category

Crystalline silica (CAS 14808-60-7)	Suspected carcinogenic effect in humans.
Ethylene oxide (CAS 75-21-8)	Suspected carcinogenic effect in humans.
Propylene oxide (CAS 75-56-9)	Suspected carcinogenic effect in humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Crystalline silica (CAS 14808-60-7)	Volume 68, Volume 100C 1 Carcinogenic to humans.
Ethanol, 2-butoxy- (CAS 111-76-2)	Volume 88 - 3 Not classifiable as to carcinogenicity to humans.
Ethylene oxide (CAS 75-21-8)	Volume 97, Volume 100F 1 Carcinogenic to humans.
Propylene oxide (CAS 75-56-9)	Volume 60 - 2B Possibly carcinogenic to humans.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Crystalline silica (CAS 14808-60-7)
Ethylene oxide (CAS 75-21-8)
Propylene oxide (CAS 75-56-9)

US NTP Report on Carcinogens: Anticipated carcinogen

Propylene oxide (CAS 75-56-9)	Reasonably Anticipated to be a Human Carcinogen.

US NTP Report on Carcinogens: Known carcinogen

Crystalline silica (CAS 14808-60-7)	Known To Be Human Carcinogen.
Ethylene oxide (CAS 75-21-8)	Known To Be Human Carcinogen.

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

Crystalline silica (CAS 14808-60-7)	Cancer
Ethylene oxide (CAS 75-21-8)	Cancer

Reproductive toxicity May damage fertility or the unborn child.

Teratogenicity In rats and mice exposed to ethylene glycol, embryotoxic (late resorptions), fetotoxic (reduced fetal body weight) and teratogenic (external, soft tissue and skeletal defects) effects were observed at relatively high oral doses that caused no or minimal maternal toxicity.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological Information

Ecotoxicity See below

Ecotoxicological data

Components		Species	Test Results
Ethanol, 2-butoxy- (CAS 111-76-2)			
Crustacea	EC50	Daphnia	1819 mg/L, 48 Hours

Components		Species	Test Results
Aquatic			
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/L, 96 hours
Ethylene glycol (CAS 107-21-1)			
Crustacea	EC50	Daphnia	46300 mg/L, 48 Hours
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	8050 mg/L, 96 hours
Potassium iodide (CAS 7681-11-0)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	896 mg/L, 96 hours
Sulfamic acid (CAS 5329-14-6)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	14.2 mg/L, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Mobility in soil

Mobility in general No data available.

Other adverse effects Not available.

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

13. Disposal Considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. 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

Transport of Dangerous Goods (TDG) Proof of Classification Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

General IMDG Regulated Marine Pollutant.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number	UN2967
Proper shipping name	Sulfamic acid
Hazard class	8
Packing group	III
Special provisions	IB8, IP3, T1, TP33
Packaging exceptions	< 11 pds - Limited Quantity
Packaging non bulk	213
Packaging bulk	240

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN2967
Proper shipping name	SULFAMIC ACID
Hazard class	8
Packing group	III
Packaging exceptions	<5 kg - Limited Quantity

DOT

TDG

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Canada CEPA Schedule I: Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.
Ethylene oxide (CAS 75-21-8)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.

Canada DSL Challenge Substances: Listed substance

Crystalline silica (CAS 14808-60-7)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

Ethanol, 2-butoxy- (CAS 111-76-2)	1 TONNES

Canada Priority Substances List (Second List): Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.
Ethylene glycol (CAS 107-21-1)	Listed.
Ethylene oxide (CAS 75-21-8)	Listed.

Canada SNAc Reporting Requirements: Listed substance/Publication date

Propylene oxide (CAS 75-56-9)	12/21/2011 Listed.

Export Control List (CEPA 1999, Schedule 3)

Ethylene oxide (CAS 75-21-8)	Substance subject to notification or consent.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS 2015 Exemptions Not applicable

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)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.
Ethylene glycol (CAS 107-21-1)	Listed.
Ethylene oxide (CAS 75-21-8)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.

US EPCRA Section 304 Extremely Haz. Subs. & CERCLA Haz. Subs.: Section 304 EHS reportable quantity

Ethylene oxide (CAS 75-21-8)	10 LBS
Propylene oxide (CAS 75-56-9)	100 LBS

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

Crystalline silica (CAS 14808-60-7)	Cancer
Ethylene oxide (CAS 75-21-8)	Cancer
Crystalline silica (CAS 14808-60-7)	lung effects

Ethylene oxide (CAS 75-21-8)	Reproductive toxicity
Crystalline silica (CAS 14808-60-7)	immune system effects
Ethylene oxide (CAS 75-21-8)	Mutagenicity
Crystalline silica (CAS 14808-60-7)	kidney effects
Ethylene oxide (CAS 75-21-8)	Central nervous system
	Skin sensitization
	Skin irritation
	Eye irritation
	respiratory tract irritation
	Acute toxicity
	Flammability

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

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

Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Propylene oxide (CAS 75-56-9)

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

Ethylene oxide (CAS 75-21-8)
Propylene oxide (CAS 75-56-9)

US state regulations See below

US - California Hazardous Substances (Director's): Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.
Ethylene glycol (CAS 107-21-1)	Listed.
Ethylene oxide (CAS 75-21-8)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.

US - Illinois Chemical Safety Act: Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Propylene oxide (CAS 75-56-9)

US - Louisiana Spill Reporting: Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.
Ethylene glycol (CAS 107-21-1)	Listed.
Ethylene oxide (CAS 75-21-8)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.

US - Minnesota Haz Subs: Listed substance

Crystalline silica (CAS 14808-60-7)	Listed.
Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.
Ethylene glycol (CAS 107-21-1)	Listed.
Ethylene oxide (CAS 75-21-8)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.

US - New Jersey RTK - Substances: Listed substance

Crystalline silica (CAS 14808-60-7)
Ethanol, 2-butoxy- (CAS 111-76-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Propylene oxide (CAS 75-56-9)
Sulfamic acid (CAS 5329-14-6)

US - North Carolina Toxic Air Pollutants: Listed substance

Ethylene oxide (CAS 75-21-8)

US - Pennsylvania RTK - Hazardous Substances: Special hazard

Ethylene oxide (CAS 75-21-8)
Propylene oxide (CAS 75-56-9)

US - Texas Effects Screening Levels: Listed substance

Crystalline silica (CAS 14808-60-7)	Listed.
Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.
Ethylene glycol (CAS 107-21-1)	Listed.
Ethylene oxide (CAS 75-21-8)	Listed.
Potassium iodide (CAS 7681-11-0)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.
Sulfamic acid (CAS 5329-14-6)	Listed.

US - Washington Chemical of High Concern to Children: Listed substance

Ethylene glycol (CAS 107-21-1)

US. Massachusetts RTK - Substance List

Crystalline silica (CAS 14808-60-7)
Ethanol, 2-butoxy- (CAS 111-76-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Propylene oxide (CAS 75-56-9)

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

Ethanol, 2-butoxy- (CAS 111-76-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Propylene oxide (CAS 75-56-9)

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

Crystalline silica (CAS 14808-60-7)
Ethanol, 2-butoxy- (CAS 111-76-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Propylene oxide (CAS 75-56-9)

US. Rhode Island RTK

Crystalline silica (CAS 14808-60-7)
Ethanol, 2-butoxy- (CAS 111-76-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Propylene oxide (CAS 75-56-9)

US. California Proposition 65

WARNING: This product can expose you to chemicals including ethylene oxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Crystalline silica (CAS 14808-60-7)	Listed: October 1, 1988
Ethylene oxide (CAS 75-21-8)	Listed: July 1, 1987
Propylene oxide (CAS 75-56-9)	Listed: October 1, 1988

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

Ethylene glycol (CAS 107-21-1)	Listed: June 19, 2015
Ethylene oxide (CAS 75-21-8)	Listed: August 7, 2009

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

Ethylene oxide (CAS 75-21-8)	Listed: February 27, 1987

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

Ethylene oxide (CAS 75-21-8)	Listed: August 7, 2009

Inventory status

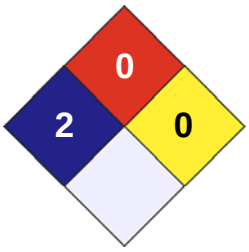
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	*	2
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		X



Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.
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Prepared by	Dell Tech Laboratories Ltd. Phone: (519) 858-5021
Other information	For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.