

(Material) Safety Data Sheet

Section 1 - Product and Company Identification

- Material Name** ▪ **CertaSpray® B-Side (Open Cell)**
- MSDS No.** ▪ CT-10156-3
- Product Use** ▪ Component of a polyurethane system.
- Manufacturer** ▪ CertainTeed Corporation
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P.O. Box 860 Valley Forge, PA 19482-0105
United States
www.certainteed.com
CertainTeed - EHS@saint-gobain.com
- Telephone**
- General** ▪ 610-341-7000
- Technical** ▪ (610) 341-7000 - 9 AM – 5 PM (Eastern Time – USA)
- Emergency** ▪ (800) 424-9300 - Chemtrec
- Preparation Date** ▪ 05/28/2010
- Last Revision Date** ▪ 10/19/2011
- Product Literature Number** ▪ 30-50-049

Key to abbreviations

‡ = HMIS is a registered trademark of the American Coatings Association

Section 2 - Hazards Identification

Emergency Overview

WARNING

May cause respiratory irritation. Causes skin irritation. Causes serious eye irritation. May be harmful if swallowed. Harmful to aquatic life.


Prevention Avoid breathing dust, fume, gas, mist, vapours and/or spray. Wash : thoroughly after handling. Wear protective gloves-Gloves, clothing , and eye/face protection , . Use only outdoors or in a well-ventilated area. Keep container tightly closed. Avoid release to the environment.

Response IF INHALED: 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. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. 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 advice/attention.

Storage/Disposal Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.



- Physical Form** ▪ Liquid
- Color** ▪ Pale color.

- Odor**
 - Slight odor.
- Flash Point**
 - 230 F(110 C)
- OSHA**
 - Flammable/Combustible - Class IIIB, Irritant
- WHMIS**
 - Class D - Poisonous and Infectious Materials - Division 2 - Subdivision B
 - 
- EU**
 - None
- GHS**
 - Acute Hazards to the aquatic environment - Category 3, Specific Target Organ Toxicity Single Exposure - Category 3: Respiratory Tract Irritation, Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2A, Acute Toxicity - Category 5
- Route Of Entry**
 - Inhalation, Skin, Eye, Ingestion/Oral

Potential Health Effects

Inhalation

Acute (Immediate)

Chronic (Delayed)

Skin

Acute (Immediate)

Chronic (Delayed)

Eye

Acute (Immediate)

Chronic (Delayed)

Ingestion

Acute (Immediate)

Chronic (Delayed)

Potential Environmental Effects

- May cause respiratory irritation. May be harmful if inhaled.
- No chronic effects expected.
- Causes skin irritation.
- No chronic effects expected.
- Causes serious eye irritation. Amine catalysts are alkaline in nature and their vapors are irritating to the eyes, even at low air concentrations. Such concentrations can cause corneal swelling without pain manifested by visual disturbances such as blurred or “foggy” vision with a blue tint (“blue haze”) and sometimes a halo phenomenon around lights. These symptoms are transient and upon cessation of exposure, usually disappear within hours, or longer depending on the duration and extent of exposure. Exposure to higher vapor concentration or direct contact with the liquid amine may cause severe irritation and tissue injury, with symptoms like burning, discomfort, involuntary closing of the eyelids, redness, and tearing. Contact with droplets or mists of amine catalysts may result in mechanical irritation, pain, and permanent corneal injury.
- Repeated and prolonged contact may cause conjunctivitis.
- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.
- No chronic effects expected.
- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Section 3 - Composition/Information on Ingredients

Hazardous Components

Chemical Name	CAS	%(wt)	UN;EINECS	LD50/LC50	EU R & S Phrases	Other
Polyethylene glycol nonylphenyl ether	9016-45-9	13% TO 30%	NDA	Ingestion/Oral-Rat LD50 · 4 g/kg	NDA	NDA
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	7% TO 13%	237-158-7	Ingestion/Oral-Rat LD50 · 1500 mg/kg	NDA	NDA

Chemical Name	CAS	%(wt)	UN;EINECS	LD50/LC50	EU R & S Phrases	Other
Ethanol, 2-(2-dimethylaminoethoxy)-	1704-62-7	3% TO 7%	216-940-1	Ingestion/Oral-Rat LD50 · 2460 µL/kgSkin-Rabbit LD50 · 1410 µL/kg	NDA	NDA
2-((2-(dimethylamino)ethyl)methylamino)-ethanol	2212-32-0	1% TO 3%	218-658-4	NDA	NDA	NDA
Ethylamine, 2,2'-oxybis(N,N-dimethyl-	3033-62-3	1% TO 3%	221-220-5	Ingestion/Oral-Rat LD50 · 571 mg/kgInhalation-Rat LC50 · 117 ppm 6 Hour(s)Skin-Rabbit LD50 · 314 mg/kg 24 Hour(s)	NDA	NDA
Non-Hazardous Components						
Chemical Name	CAS	%(wt)	UN;EINECS	LD50/LC50	EU R & S Phrases	Other
Polyether polyol blend		30% TO 60%	NDA	NDA	NDA	NDA

Under United States Regulations (29 CFR 1900.1200 - Hazard Communication Standard), this product is considered hazardous. In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS). According to the Globally Harmonized Standard for Classification and Labeling (GHS) this product is considered hazardous.

Section 4 - First Aid Measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

Eye

- Get medical attention immediately. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Chemical burns must be treated promptly by a physician.

Ingestion

- If swallowed, rinse mouth with water (only if the person is conscious) Do not induce vomiting unless directed to do so by medical personnel. Obtain medical attention immediately if ingested.

Notes to Physician

- Treat symptomatically and supportively. Call medical doctor or poison control center immediately if large quantities have been ingested.

Section 5 - Fire Fighting Measures

Extinguishing Media

- LARGE FIRES: Dry chemical, CO2, alcohol-resistant foam or water spray. SMALL FIRES: Dry chemical, CO2 or water spray.

Unsuitable Extinguishing Media

- None known.

Firefighting Procedures

- 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 INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: Do not get water inside containers. FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: Cool containers with flooding quantities of water until well after fire is out.

<p>Unusual Fire and Explosion Hazards</p> <p>Hazardous Combustion Products</p> <p>Protection of Firefighters</p> <p>Flash Point</p>	<p>FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.</p> <p>FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: ALWAYS stay away from tanks engulfed in fire.</p> <ul style="list-style-type: none"> ▪ Containers may explode when heated. ▪ Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, phosphorous oxides, and halogenated compounds. ▪ Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear positive pressure self-contained breathing apparatus (SCBA). ▪ 230 F(110 C) CC (Closed Cup)
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Section 6 - Accidental Release Measures

<p>Personal Precautions</p> <p>Emergency Procedures</p> <p>Environmental Precautions</p> <p>Containment/Clean-up Measures</p> <p>Prohibited Materials</p>	<ul style="list-style-type: none"> ▪ Take proper precautions to minimize exposure by using appropriate personal protective equipment. Do not touch or walk through spilled material Do not breathe vapor or mist Ventilate enclosed areas Do not touch damaged containers or spilled material unless wearing appropriate protective clothing ▪ ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) Stop leak if you can do it without risk As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions Keep unauthorized personnel away Stay upwind Keep out of low areas Do not get water inside container ▪ Do not allow material or runoff to contact soil or enter waterways, drains and sewers Runoff from fire control or dilution water may cause pollution Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air). ▪ 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. Contaminated absorbent material may exhibit the same hazard(s) as the spilled product. ▪ No data available.
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Section 7 - Handling and Storage

<p>Handling</p> <p>Storage</p>	<ul style="list-style-type: none"> ▪ Put on appropriate personal protective equipment. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Keep containers closed when not in use. Use only with adequate ventilation. Empty containers retain product residue and can be hazardous. Do not reuse container. Keep in the original container or an approved alternative made from a compatible material. Wear appropriate respirator when ventilation is inadequate. ▪ Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials(see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. It is recommended that the product drums be stored
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between 55–80°F. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Ventilate enclosed areas.

**Special Packaging Materials
Incompatible Materials or
Ignition Sources**

- No data available
- Reactive or incompatible with the following materials: oxidizing materials, reducing materials, metals, acids and alkalis.

Section 8 - Exposure Controls/Personal Protection

**Personal Protective Equipment
Pictograms**



Respiratory

- Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eye/Face

- 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 or dusts.

Hands

- Chemical-resistant, impervious gloves should be worn at all times when handling this product.

Skin/Body

- Wear protective clothing Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**General Industrial Hygiene
Considerations**

- Do not get in eyes or on skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Handle in accordance with good industrial hygiene and safety practice.

**Engineering
Measures/Controls**

- Good general ventilation 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.

Exposure Limits/Guidelines

- None listed.

Exposure Limits/Guidelines

	Result	ACGIH	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories
p-Dioxane (123-91-1)	TWAs	20 ppm TWA	20 ppm TWA	20 ppm TWA	25 ppm TWA; 90 mg/m3 TWA	25 ppm TWA; 90 mg/m3 TWA
	STELs	Not established	Not established	Not established	Not established	100 ppm STEL; 360 mg/m3 STEL
1,2-Ethandiol (107-21-1)	Ceilings	100 mg/m3 Ceiling (aerosol only)	100 mg/m3 Ceiling (aerosol); 50 ppm Ceiling (vapour)	100 mg/m3 Ceiling (aerosol only)	100 mg/m3 Ceiling (aerosol)	50 ppm Ceiling (vapour); 127 mg/m3 Ceiling (vapour)
	STELs	Not established	20 mg/m3 STEL (particulate)	Not established	Not established	20 mg/m3 STEL (particulate)
	TWAs	Not established	10 mg/m3 TWA (particulate)	Not established	Not established	10 ppm TWA (particulate)
Ethylamine, 2,2'-oxybis(N,N-dimethyl-	STELs	0.15 ppm STEL	0.15 ppm STEL	0.15 ppm STEL	Not established	Not established
	TWAs	0.05 ppm TWA	0.05 ppm TWA	0.05 ppm TWA	Not established	Not established

Exposure Limits/Guidelines						
	Result	ACGIH	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories
(3033-62-3)						
Ethylene oxide (75-21-8)	STELs	Not established	1 ppm STEL	Not established	Not established	50 ppm STEL; 100 mg/m3 STEL
	TWAs	1 ppm TWA	0.1 ppm TWA	1 ppm TWA	1 ppm TWA; 1.8 mg/m3 TWA	10 ppm TWA; 20 mg/m3 TWA
	Result	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec	Canada Yukon
p-Dioxane (123-91-1)	TWAs	20 ppm TWA	25 ppm TWA; 90 mg/m3 TWA	20 ppm TWAEV	20 ppm TWAEV; 72 mg/m3 TWAEV	50 ppm TWA; 180 mg/m3 TWA
	STELs	Not established	100 ppm STEL; 360 mg/m3 STEL	Not established	Not established	50 ppm STEL; 180 mg/m3 STEL
1,2-Ethanediol (107-21-1)	Ceilings	100 mg/m3 Ceiling (aerosol only)	50 ppm Ceiling (vapour); 127 mg/m3 Ceiling (vapour)	100 mg/m3 CEV	50 ppm Ceiling (mist and vapour); 127 mg/m3 Ceiling (mist and vapour)	Not established
	STELs	Not established	20 mg/m3 STEL (particulate)	Not established	Not established	10 ppm STEL (particulate); 20 mg/m3 STEL (particulate); 125 ppm STEL (vapour); 325 mg/m3 STEL (vapour)
	TWAs	Not established	10 mg/m3 TWA (particulate)	Not established	Not established	10 mg/m3 TWA (particulate); 100 ppm TWA (vapour); 250 mg/m3 TWA (vapour)
Ethylamine, 2,2'-oxybis(N,N-dimethyl-) (3033-62-3)	STELs	0.15 ppm STEL	Not established	0.15 ppm STEV	Not established	Not established
	TWAs	0.05 ppm TWA	Not established	0.05 ppm TWAEV	Not established	Not established
Ethylene oxide (75-21-8)	TWAs	1 ppm TWA	10 ppm TWA; 20 mg/m3 TWA	1 ppm TWAEV (designated substance regulation); 1.8 mg/m3 TWAEV (designated substance regulation)	1 ppm TWAEV; 1.8 mg/m3 TWAEV	50 ppm TWA; 90 mg/m3 TWA
	STELs	Not established	50 ppm STEL; 100 mg/m3 STEL	10 ppm STEV (designated substances regulation); 18 mg/m3 STEV (designated substances regulation)	Not established	75 ppm STEL; 135 mg/m3 STEL

Exposure Limits/Guidelines(Con't.)			
	Result	NIOSH	OSHA
p-Dioxane (123-91-1)	TWAs	Not established	100 ppm TWA; 360 mg/m3 TWA
	Ceilings	1 ppm Ceiling (30 min); 3.6 mg/m3 Ceiling (30 min)	Not established
Ethylene oxide (75-21-8)	STELs	Not established	5 ppm STEL (see 29 CFR 1910.1047)
	TWAs	0.1 ppm TWA (less than stated value); 0.18 mg/m3 TWA (less than stated value)	1 ppm TWA
	Ceilings	5 ppm Ceiling (10 min/day); 9 mg/m3 Ceiling (10 min/day)	Not established

Section 9 - Physical and Chemical Properties

Physical Form:	Liquid	Appearance/Description:	Pale color liquid with slight odor.
Color:	Pale color.	Odor:	Slight odor.
Taste:	No data available.	Particulate Type:	Not relevant
Particulate Size:	Not relevant	Aerosol Type:	Not relevant
Odor Threshold:	Not relevant	Boiling Point:	Not relevant
Melting Point:	41 F(5 C)	Decomposition Temperature:	Not relevant
Heat of Decomposition:	Not relevant	pH:	Not relevant
Specific Gravity/Relative Density:	= 1.14 Water=1	Density:	= 9.5133 lbs/gal
Bulk Density:	Not relevant	Water Solubility:	Not relevant
Solvent Solubility:	Not relevant	Viscosity:	= 175 Centipoise (cPs, cP) or mPas
Vapor Pressure:	= 0.13 kPa	Vapor Density:	Not relevant
Evaporation Rate:	Not relevant	VOC (Wt.):	Not relevant
VOC (Vol.):	Not relevant	Volatiles (Wt.):	Not relevant
Volatiles (Vol.):	Not relevant	Flash Point:	230 F(110 C)
Flash Point Test Type:	CC (Closed Cup)	UEL:	Not relevant
LEL:	Not relevant	Heat of Combustion (ΔHc):	Not relevant
Autoignition:	Not relevant	Self-Accelerating Decomposition Temperature (SADT):	Not relevant
Burning Time:	Not relevant	Flame Duration:	Not relevant
Flame Height:	Not relevant	Flame Extension:	Not relevant
Ignition Distance:	Not relevant	Half-Life:	Not relevant
Octanol/Water Partition coefficient:	Not relevant	Coefficient of water/oil distribution:	Not relevant
Bioaccumulation Factor:	Not relevant	Bioconcentration Factor:	Not relevant
Biochemical Oxygen Demand BOD/BOD5:	Not relevant	Chemical Oxygen Demand:	Not relevant
Persistence:	Not relevant	Degradation:	Not relevant

Section 10 - Stability and Reactivity

Stability	<ul style="list-style-type: none"> Stable
Hazardous Polymerization	<ul style="list-style-type: none"> Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to Avoid	<ul style="list-style-type: none"> Incompatible materials. Excess heat.
Incompatible Materials	<ul style="list-style-type: none"> Reactive or incompatible with the following materials: oxidizing materials, reducing materials, metals, acids and alkalis.
Hazardous Decomposition Products	<ul style="list-style-type: none"> Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, phosphorous oxides, and halogenated compounds.

Section 11 - Toxicological Information

Irritating to eyes, skin, and respiratory tract. May be harmful if swallowed and inhaled.

Component Name	Concentration	CAS	Data
2-Propanol, 1-chloro-, 2,2',2"-phosphate	7% TO 13%	13674-84-5	Acute Toxicity: ; orl-rat LD50:1500 mg/kg
Ethanol, 2-(2-dimethylaminoethoxy)-	3% TO 7%	1704-62-7	Acute Toxicity: ; orl-rat LD50:2460 uL/kg Irritation: ; eye-rbt 750 ug/24H SEV

Section 12 - Ecological Information

CertaSpray B (Open Cell)

Dosage	Units	Species	Species Description	Duration	Results	Comments
= 320	mg/L	Fish	NDA	96 Hour(s)	Dimethylaminoethoxyethanol - 1704-62-7	LC50
= 35	mg/L	Fish	NDA	96 Hour(s)	2-Propanol, 1-chloro-, 2,2',2''-phosphate - 13674-84-5	LC50

Ecological Fate

Persistence/Degradability

Bioaccumulation Potential

Mobility in Soil

- No information available for the product.
- No information available for the product.
- No information available for the product.
- No information available for the product.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Section 13 - Disposal Considerations

Product

- The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental and waste disposal legislation and any regional local authority requirements. Do not allow material or runoff to contact soil or enter waterways, drains and sewers.

Packaging

- Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Do not reuse container.

Section 14 - Transportation Information

DOT - United States - Department of Transportation

Shipping Name: Not Regulated

TDG - Canada - Transport of Dangerous Goods

Shipping Name: Not Regulated

Section 15 - Regulatory Information

SARA Hazard Classifications ▪ Acute

State Right To Know

Component	CAS	MA	NJ	PA
Polyether polyol blend	NDA	No	No	No
Polyethylene glycol nonylphenyl ether	9016-45-9	No	No	No
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	No	No	No
Ethanol, 2-(2-dimethylaminoethoxy)-	1704-62-7	No	No	No
2-((2-(dimethylamino)ethyl)methylamino)-ethanol	2212-32-0	No	No	No
Ethylamine, 2,2'-oxybis(N,N-dimethyl-	3033-62-3	No	Yes	No
Ethylene oxide	75-21-8	Yes	Yes	Yes
1,2-Ethanediol	107-21-1	Yes	Yes	Yes
p-Dioxane	123-91-1	Yes	Yes	Yes

Inventory

Component	CAS	Canada DSL	Canada NDSL	TSCA
Polyether polyol blend	NDA	No	No	No
Polyethylene glycol nonylphenyl ether	9016-45-9	Yes	No	Yes
2-Propanol, 1-chloro-, 2,2',2"-phosphate	13674-84-5	Yes	No	Yes
Ethanol, 2-(2-dimethylaminoethoxy)-	1704-62-7	Yes	No	Yes
2-((2-(dimethylamino)ethyl)methylamino)-ethanol	2212-32-0	Yes	No	Yes
Ethylamine, 2,2'-oxybis(N,N-dimethyl-	3033-62-3	Yes	No	Yes
Ethylene oxide	75-21-8	Yes	No	Yes
1,2-Ethanediol	107-21-1	Yes	No	Yes
p-Dioxane	123-91-1	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

▪ Ethylene oxide	75-21-8	< 1%	A, B1, D1A, D2A, E, F
▪ p-Dioxane	123-91-1	< 0.1%	B2, D2A, D2B
▪ p-Dioxane as Dioxin and Dioxin-Like Compounds	123-91-1	< 0.1%	B2, D2A, D2B
▪ Polyethylene glycol nonylphenyl ether	9016-45-9	13% TO 30%	D2B

Canada - WHMIS - Ingredient Disclosure List

▪ Ethylene oxide	75-21-8	< 1%	0.1 %
▪ p-Dioxane	123-91-1	< 0.1%	0.1 %

▪ p-Dioxane as Dioxin and Dioxin-Like Compounds	123-91-1	< 0.1%	0.1 %
▪ 1,2-Ethanediol	107-21-1	< 0.1%	1 %

Environment

Canada - CEPA - Priority Substances List

▪ Ethylene oxide	75-21-8	< 1%	Priority Substance List 2 (substance considered toxic)
▪ 1,2-Ethanediol	107-21-1	< 0.1%	Priority Substance List 2 (substance proposed to be considered toxic)

Mexico

Other

Mexico - Hazard Classifications

▪ Ethylene oxide	75-21-8	< 1%	Class = 2.3, 2.1
▪ p-Dioxane	123-91-1	< 0.1%	Class = 3
▪ p-Dioxane as Dioxin and Dioxin-Like Compounds	123-91-1	< 0.1%	Class = 3

Mexico - Regulated Substances

▪ Ethylene oxide	75-21-8	< 1%	UN1040
▪ p-Dioxane	123-91-1	< 0.1%	UN1165
▪ p-Dioxane as Dioxin and Dioxin-Like Compounds	123-91-1	< 0.1%	UN1165

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

▪ Ethylene oxide	75-21-8	< 1%	5000 lb TQ
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U.S. - OSHA - Specifically Regulated Chemicals

▪ Ethylene oxide	75-21-8	< 1%	5 ppm Excursion Limit (Cancer hazard and reproductive hazard, See 29 CFR 1910.1047, 15 min); 0.5 ppm Action Level; 1 ppm TWA
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Environment

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

▪ Ethylene oxide	75-21-8	< 1%	10 lb final RQ; 4.54 kg final RQ
▪ p-Dioxane	123-91-1	< 0.1%	100 lb final RQ; 45.4 kg final RQ
▪ p-Dioxane as Dioxin and Dioxin-Like Compounds	123-91-1	< 0.1%	100 lb final RQ; 45.4 kg final RQ
▪ 1,2-Ethanediol	107-21-1	< 0.1%	5000 lb final RQ; 2270 kg final RQ

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

▪ Ethylene oxide	75-21-8	< 1%	10 lb EPCRA RQ
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U.S. - CERCLA/SARA - Section 313 - Emission Reporting

▪ Ethylene oxide	75-21-8	< 1%	0.1 % de minimis concentration
▪ p-Dioxane	123-91-1	< 0.1%	0.1 % de minimis concentration
▪ p-Dioxane as Dioxin and Dioxin-Like Compounds	123-91-1	< 0.1%	0.1 % de minimis concentration

▪ 1,2-Ethanediol	107-21-1	< 0.1%	1.0 % de minimis concentration
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United States - California

Environment			
U.S. - California - Proposition 65 - Carcinogens List			
▪ Ethylene oxide	75-21-8	< 1%	carcinogen, initial date 7/1/87
▪ p-Dioxane	123-91-1	< 0.1%	carcinogen, initial date 1/1/88
▪ p-Dioxane as Dioxin and Dioxin-Like Compounds	123-91-1	< 0.1%	carcinogen, initial date 1/1/88
U.S. - California - Proposition 65 - Developmental Toxicity			
▪ Ethylene oxide	75-21-8	< 1%	developmental toxicity, initial date 8/7/09
U.S. - California - Proposition 65 - Reproductive Toxicity - Female			
▪ Ethylene oxide	75-21-8	< 1%	female reproductive toxicity, initial date 2/27/87
U.S. - California - Proposition 65 - Reproductive Toxicity - Male			
▪ Ethylene oxide	75-21-8	< 1%	male reproductive toxicity, initial date 8/7/09

United States - Rhode Island

Labor			
U.S. - Rhode Island - Hazardous Substance List			
▪ Ethylene oxide	75-21-8	< 1%	Toxic; Flammable; Carcinogen
▪ p-Dioxane	123-91-1	< 0.1%	Toxic (skin); Flammable (skin); Carcinogen (skin)
▪ p-Dioxane as Dioxin and Dioxin-Like Compounds	123-91-1	< 0.1%	Toxic (skin); Flammable (skin); Carcinogen (skin)
▪ 1,2-Ethanediol	107-21-1	< 0.1%	Toxic; Flammable

Additional Regulatory Information	▪ WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.
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Section 16 - Other Information

Last Revision Date	▪ 5/28/2010
Preparation Date	▪ 10/19/2011
Disclaimer/Statement of Liability	▪ Reasonable care has been taken in the preparation of this information, but the supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.