

Material Safety Data Sheet

Tech Tire Seal



1. Product and company identification

Product name : Tech Tire Seal
Supplier : Same as manufacturer.
Trade name : Tech Tire Seal
Manufacturer : Tech International
200 East Coshocton Street
P.O. Box 486
Johnstown, Ohio 43031.
www.techtirerepairs.com
jsellers@techtirerepairs.com
Code : 707HD, 708HD, 709HD, 714HD
MSDS # : 707, 708, 709, 714
Validation date : 1/5/2012.
Print date : 3/5/2012.
Responsible name : **Jeff Sellers**
In case of emergency : Chemtrec 1-800-424-9300
Product type : Liquid.

2. Hazards identification

Physical state : Liquid. [Viscous liquid.]
Odor : Surfactant. [Slight]
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview : DANGER!
CAUSES DIGESTIVE TRACT BURNS. MAY CAUSE EYE AND SKIN IRRITATION.
MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
Corrosive to the digestive tract. Causes burns. Slightly irritating to the eyes and skin.
Do not breathe vapor or mist. Do not ingest. Do not get in eyes. Avoid contact with skin and clothing. May cause target organ damage, based on animal data. Wash thoroughly after handling.
Routes of entry : Dermal contact. Eye contact. Ingestion.
Potential acute health effects
Inhalation : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
Ingestion : Corrosive to the digestive tract. Causes burns.
Skin : Slightly irritating to the skin.
Eyes : Slightly irritating to the eyes.
Potential chronic health effects
Chronic effects : May cause target organ damage, based on animal data.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.
Target organs : May cause damage to the following organs: central nervous system (CNS).
Contains material which may cause damage to the following organs: upper respiratory tract, skin, eyes.

Over-exposure signs/symptoms

2. Hazards identification

- Inhalation** : No specific data.
- Ingestion** : Adverse symptoms may include the following:
stomach pains
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
irritation
watering
redness
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

United States

<u>Name</u>	<u>CAS number</u>	<u>%</u>
ethanediol	107-21-1	48

Canada

<u>Name</u>	<u>CAS number</u>	<u>%</u>
ethanediol	107-21-1	48

Mexico

<u>Name</u>	<u>CAS number</u>	<u>UN number</u>	<u>%</u>	<u>IDLH</u>	<u>H</u>	<u>F</u>	<u>R</u>	<u>Classification</u> <u>Special</u>
ethanediol	107-21-1	Not available.	48	-	2	1	0	

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

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : 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.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

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

Methods for cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling : Put on appropriate personal protective equipment (see Section 8). 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. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.

Storage : Store in accordance with local regulations. 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.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
ethanediol	OSHA PEL 1989 (United States, 3/1989). CEIL: 50 ppm CEIL: 125 mg/m ³ ACGIH TLV (United States, 2/2010). C: 100 mg/m ³ Form: Aerosol

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	Notations
ethanediol	US ACGIH 2/2010	-	-	-	-	-	-	-	100	-	[a]
	AB 4/2009	-	-	-	-	-	-	-	100	-	[3]
	BC 10/2009	-	-	-	-	-	-	-	100	-	[a]
		-	10	-	-	20	-	-	-	-	[b]
	ON 7/2010	-	-	-	-	-	-	50	-	-	[c]
	QC 6/2008	-	-	-	50	127	-	-	100	-	[d]
		-	-	-	-	-	-	-	-	-	[e]

[3]Skin sensitization

Form: [a]Aerosol [b]Particulate [c]Vapour [d]aerosol [e]vapour and mist

Mexico

Ingredient	Exposure limits
ethanediol	NOM-010-STPS (Mexico, 9/2000). LMPE-Pico: 100 mg/m ³

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

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.

Hands

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes

: 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.

Skin

: 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.

8. Exposure controls/personal protection

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

9. Physical and chemical properties

Physical state : Liquid. [Viscous liquid.]
Flammable limits : Lower: 3.2%
 Upper: 15.3%
Color : White.
Odor : Surfactant. [Slight]
Boiling/condensation point : >121.1°C (>250°F)
Relative density : 1.08

10. Stability and reactivity

Chemical stability : The product is stable.
Conditions to avoid : No specific data.
Materials to avoid : No specific data.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

United States

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ethanediol	LD50 Dermal	Rabbit	9530 uL/kg	-
	LD50	Rat	5010 mg/kg	-
	Intraperitoneal			
	LD50 Intravenous	Rat	3260 mg/kg	-
	LD50 Oral	Rat	4700 mg/kg	-
	LD50	Rat	2800 mg/kg	-
	Subcutaneous			
	LD50 Unreported	Rat	13 g/kg	-
	LDLo	Rat	3300 mg/kg	-
	Intramuscular			
	LDLo Intravenous	Rat	2800 mg/kg	-
	TDLo Oral	Rat	5000 mg/kg	-
	TDLo Oral	Rat	1110 mg/kg	-
	TDLo Oral	Rat	1000 mg/kg	-
	TDLo Oral	Rat	120 mg/kg	-
	TDLo	Rat	3000 mg/kg	-
	Subcutaneous			

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
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11. Toxicological information

ethanediol	Eyes - Mild irritant	Rabbit	-	-	-
	Eyes - Moderate irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
ethanediol	A4	-	-	-	-	-

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Canada

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ethanediol	LD50 Dermal	Rabbit	9530 uL/kg	-
	LD50 Intraperitoneal	Rat	5010 mg/kg	-
	LD50 Intravenous	Rat	3260 mg/kg	-
	LD50 Oral	Rat	4700 mg/kg	-
	LD50 Subcutaneous	Rat	2800 mg/kg	-
	LD50 Unreported	Rat	13 g/kg	-
	LDLo Intramuscular	Rat	3300 mg/kg	-
	LDLo Intravenous	Rat	2800 mg/kg	-
	TDLo Oral	Rat	5000 mg/kg	-
	TDLo Oral	Rat	1110 mg/kg	-
	TDLo Oral	Rat	1000 mg/kg	-
	TDLo Oral	Rat	120 mg/kg	-
	TDLo Subcutaneous	Rat	3000 mg/kg	-

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ethanediol	Eyes - Mild irritant	Rabbit	-	-	-
	Eyes - Moderate irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

11. Toxicological information

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
ethanediol	A4	-	-	-	-	-

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Mexico

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ethanediol	LD50 Dermal	Rabbit	9530 uL/kg	-
	LD50 Intraperitoneal	Rat	5010 mg/kg	-
	LD50 Intravenous	Rat	3260 mg/kg	-
	LD50 Oral	Rat	4700 mg/kg	-
	LD50 Subcutaneous	Rat	2800 mg/kg	-
	LD50 Unreported	Rat	13 g/kg	-
	LDLo Intramuscular	Rat	3300 mg/kg	-
	LDLo Intravenous	Rat	2800 mg/kg	-
	TDLo Oral	Rat	5000 mg/kg	-
	TDLo Oral	Rat	1110 mg/kg	-
	TDLo Oral	Rat	1000 mg/kg	-
	TDLo Oral	Rat	120 mg/kg	-
	TDLo Subcutaneous	Rat	3000 mg/kg	-

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Score	Score	Exposure	Observation
ethanediol	Eyes - Mild irritant	Rabbit	-	-	-
	Eyes - Moderate irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
ethanediol	A4	-	-	-	-	-

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

11. Toxicological information

Conclusion/Summary : Not available.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

United States

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
ethanediol	-	Acute LC50 27540 mg/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 0.85 g	96 hours
	-	Acute LC50 >18500 mg/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
	-	Acute LC50 41 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.7 g	96 hours
	-	Acute LC50 16 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 1.1 g	96 hours
	-	Acute LC50 1000000000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon	48 hours
	-	Acute LC50 53000000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - FRY - 10 to 15 days - 9.5 mm - 11.6 mg	96 hours
	-	Acute LC50 49000000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 30 to 35 days - 14.9 mm - 76.8 mg	96 hours
	-	Acute LC50 25500000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
	-	Acute LC50 22600000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours

12. Ecological information

-	Acute LC50 13900000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
-	Acute LC50 13140000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - <=24 hours	48 hours
-	Acute LC50 10500000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
-	Acute LC50 >10000000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
-	Acute LC50 >10000000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
-	Acute LC50 10000000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
-	Acute LC50 8050000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - <=7 days	96 hours
-	Acute LC50 6900000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
-	Acute LC50 >100000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
-	Chronic NOEC 39140000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - <=7 days	96 hours
-	Chronic NOEC 24000000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - <=24 hours	48 hours
-	Chronic NOEC 11610000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - <=24 hours	48 hours
-	Chronic NOEC 6090000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - <=7 days	96 hours

12. Ecological information

Conclusion/Summary : Not available.

Persistence/degradability

Conclusion/Summary : Not available.

Canada

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
ethanediol	-	Acute LC50 27540 mg/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 0.85 g	96 hours
	-	Acute LC50 >18500 mg/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
	-	Acute LC50 41 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.7 g	96 hours
	-	Acute LC50 16 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 1.1 g	96 hours
	-	Acute LC50 1000000000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon	48 hours
	-	Acute LC50 53000000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - FRY - 10 to 15 days - 9.5 mm - 11.6 mg	96 hours
	-	Acute LC50 49000000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 30 to 35 days - 14.9 mm - 76.8 mg	96 hours
	-	Acute LC50 25500000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
	-	Acute LC50 22600000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
	-	Acute LC50	Daphnia - Water	48 hours

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	13900000 ug/L Fresh water	flea - Ceriodaphnia dubia - Neonate	
-	Acute LC50 13140000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - <=24 hours	48 hours
-	Acute LC50 10500000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
-	Acute LC50 >10000000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
-	Acute LC50 >10000000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
-	Acute LC50 10000000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
-	Acute LC50 8050000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - <=7 days	96 hours
-	Acute LC50 6900000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
-	Acute LC50 >100000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
-	Chronic NOEC 39140000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - <=7 days	96 hours
-	Chronic NOEC 24000000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - <=24 hours	48 hours
-	Chronic NOEC 11610000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - <=24 hours	48 hours
-	Chronic NOEC 6090000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - <=7 days	96 hours

Conclusion/Summary : Not available.

12. Ecological information

Persistence/degradability

Conclusion/Summary : Not available.

Mexico

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
ethanediol	-	Acute LC50 27540 mg/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 0.85 g	96 hours
	-	Acute LC50 >18500 mg/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
	-	Acute LC50 41 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.7 g	96 hours
	-	Acute LC50 16 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 1.1 g	96 hours
	-	Acute LC50 1000000000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon	48 hours
	-	Acute LC50 53000000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - FRY - 10 to 15 days - 9.5 mm - 11.6 mg	96 hours
	-	Acute LC50 49000000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 30 to 35 days - 14.9 mm - 76.8 mg	96 hours
	-	Acute LC50 25500000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
	-	Acute LC50 22600000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
	-	Acute LC50 13900000 ug/L	Daphnia - Water flea -	48 hours

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	Fresh water	Ceriodaphnia dubia - Neonate	
-	Acute LC50 13140000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - <=24 hours	48 hours
-	Acute LC50 10500000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
-	Acute LC50 >10000000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
-	Acute LC50 >10000000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
-	Acute LC50 10000000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
-	Acute LC50 8050000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - <=7 days	96 hours
-	Acute LC50 6900000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
-	Acute LC50 >100000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
-	Chronic NOEC 39140000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - <=7 days	96 hours
-	Chronic NOEC 24000000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - <=24 hours	48 hours
-	Chronic NOEC 11610000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - <=24 hours	48 hours
-	Chronic NOEC 6090000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - <=7 days	96 hours

Conclusion/Summary : Not available.

Persistence/degradability

12. Ecological information

- Conclusion/Summary** : Not available.
- Other adverse effects** : No known significant effects or critical hazards.

13. Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. 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 protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-
Mexico Classification	Not regulated.	-	-	-		-
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-

PG* : Packing group

15. Regulatory information

United States

- HCS Classification** : Corrosive material
Target organ effects
- U.S. Federal regulations** : **TSCA 8(a) IUR Exempt/Partial exemption:** Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: ethanediol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
ethanediol: Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Air Act (CAA) 112 accidental release prevention: No products were found.

15. Regulatory information

SARA 313

	<u>Product name</u>	<u>CAS number</u>	<u>Concentration</u>
Form R - Reporting requirements	: ethanediol	107-21-1	48
Supplier notification	: ethanediol	107-21-1	48

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations	Connecticut Carcinogen Reporting: None of the components are listed. Connecticut Hazardous Material Survey: None of the components are listed. Florida substances: None of the components are listed. Illinois Chemical Safety Act: None of the components are listed. Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed. Louisiana Reporting: None of the components are listed. Louisiana Spill: None of the components are listed. Massachusetts Spill: None of the components are listed. Massachusetts Substances: The following components are listed: ETHYLENE GLYCOL Michigan Critical Material: None of the components are listed. Minnesota Hazardous Substances: None of the components are listed. New Jersey Hazardous Substances: The following components are listed: ETHYLENE GLYCOL; 1,2-ETHANEDIOL New Jersey Spill: None of the components are listed. New Jersey Toxic Catastrophe Prevention Act: None of the components are listed. New York Acutely Hazardous Substances: The following components are listed: Ethylene glycol New York Toxic Chemical Release Reporting: None of the components are listed. Pennsylvania RTK Hazardous Substances: The following components are listed: 1,2-ETHANEDIOL Rhode Island Hazardous Substances: None of the components are listed.
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United States inventory (TSCA 8b)	: All components are listed or exempted.
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Canada

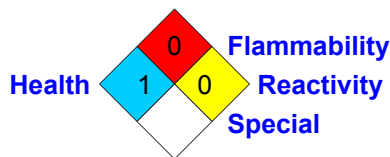
WHMIS (Canada)	: Class D-2B: Material causing other toxic effects (Toxic).
Canadian lists	CEPA Toxic substances: None of the components are listed. Canadian ARET: None of the components are listed. Canadian NPRI: The following components are listed: Ethylene glycol Alberta Designated Substances: None of the components are listed. Ontario Designated Substances: None of the components are listed. Quebec Designated Substances: None of the components are listed.

Canada inventory	: All components are listed or exempted.
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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico

Classification	:
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GHS Classification

15. Regulatory information

Hazard symbol or symbols :



Precautionary statements : Wear eye or face protection. Wash hands thoroughly after handling. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes.

Hazard statements : May be harmful if swallowed.
Causes mild skin irritation.
Causes serious eye irritation.

EU regulations

Hazard symbol or symbols :



Risk phrases : R22- Harmful if swallowed.

International regulations

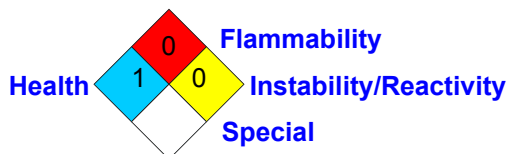
International lists : **Australia inventory (AICS)**: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.

16. Other information

Label requirements : CAUSES DIGESTIVE TRACT BURNS. MAY CAUSE EYE AND SKIN IRRITATION.
MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

The customer is responsible for determining the PPE code for this material.

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



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Version : 0.02

▣ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.