

SECTION 1 : IDENTIFICATION

Product Name: ETHYLENE GLYCOL INHIBITED
Product Use: Freeze Point Depressant

Supplier: Glengarry Solutions **Phone:** 416-757-1333
Address: 33 Melford Drive, Unit 5, **Fax:** 416-757-9793
Scarborough, Ontario. M1B 2G6 **Poison Control Centre:** 1-800-268-9017

SECTION 2 : HAZARD IDENTIFICATION**GHS Classification:**

Category 2B: Serious eye damage/eye irritation.
Category 2: Carcinogenicity.
Category 1B: Reproductive toxicity.
Category 1: Specific target organ toxicity (repeated exposure).
Category 4: Acute toxicity, oral.

Signal Word: **DANGER**

Pictogram:

**Hazard Statements:**

H302: Harmful if swallowed.
H313: May be harmful in contact with skin.
H320: Causes eye irritation.
H351: Suspected of causing cancer.
H373: May cause damage to organs through prolonged or repeated exposure.
H360: May damage fertility or the unborn child.

Precautionary Statements:

P202: Do not handle until all safety precautions have been read and understood.
P234: Keep only in original container.
P260: Do not breathe mist.
P264: Wash thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/face protection.

Response Statements:

P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. DO NOT INDUCE VOMITING. Immediately call a POISON CENTER/doctor.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340+P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P332+313 If skin irritation occur, get medical advice/attention.

P337+313 If eye irritation persists, get medical advice/attention.
P314: Get medical advice/attention if you feel unwell.
P363: Wash contaminated clothing before reuse.

Storage: P405: Store locked up.
Disposal: P501: Dispose of container according to all applicable regulations.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	EC No.	CONCENTRATION (wt/wt)
Ethylene Glycol	107-21-1		60 to 100
Sodium Nitrite	7632-00-0		0.1 to 1.0
Sodium tetraborate, pentahydrate	12179-04-3		0.1 to 1.0

SECTION 4 : FIRST AID MEASURES

EYES: Wash with copious amounts of water for at least 20 minutes keeping eyelids open. If irritation persists, repeat flushing. Get medical attention if irritation develops and persists.

SKIN: Immediately wash the affected areas with plenty of water. If irritation persists, obtain medical attention.

INHALATION: Remove person to fresh air and keep comfortable for breathing. Seek medical attention if symptoms develops or persists.

INGESTION: Do not attempt to give anything by mouth to an unconscious person. If person is alert and not convulsing, rinse mouth out and give 1-2 glasses of water to dilute material and seek medical attention immediately.

Most important symptoms and effects, both acute and delayed

Convulsions. Dizziness. Nausea, vomiting. Abdominal pain. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Prolonged exposure may cause chronic effects.

Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General Information

If exposed or concerned, get medical advice/attention. Ensure that medical personnel are aware of the materials involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

SECTION 5 : FIRE FIGHTING MEASURES

Flammability: Not flammable.

Suitable Extinguishing Media: Use extinguishing media suitable for surrounding materials.

Specific Hazards Arising from the Chemical: None known.

Special Protective Equipment and Precautions for Fire-fighters:
Self contained breathing apparatus and protective clothing should be worn in fighting all fires involving chemicals.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid contact with skin, eyes and inhalation of vapors.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

Methods and Materials for Containment and Cleaning Up:

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Dispose of according to local, provincial and federal regulations.

SECTION 7 : HANDLING AND STORAGE

Precautions for Safe Handling:

Do not handle until all safety precautions have been read and understood. Use normal good industrial hygiene and safety practices. Use recommended safety equipment when handling. Wash thoroughly after handling.

Conditions for Safe Storage:

Avoid storage at high temperatures and protect from freezing. Store away from incompatibles. Keep containers closed when not in use. Store locked up.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

COMPONENTS	CAS NO.	ACGIH TLV	OSHA PEL	NIOSH
Ethylene Glycol	107-21-1	100 mg/m ³ (ceiling)	125 mg/m ³ (ceiling)	Not Available
Sodium tetraborate, pentahydrate	12179-04-3	2 mg/m ³ (TWA)	Not Available	5 mg/m ³ (TWA)

Remarks:

Only those substances with limit values have been listed.

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Appropriate Engineering Controls:

Ensure adequate ventilation, especially in confined areas.

Individual Protection Measures:

Eyes: Chemical safety goggles/faceshield.

Skin: Chemical resistant gloves and appropriate protective clothing.

Respiratory: Approved NIOSH respiratory protection if TLV/PEL is exceeded or if over exposure is likely.

Work Hygienic Practices: Facilities storing or using this material should be equipped with emergency eyewash and a safety shower. Good personal hygiene practices should always be followed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.
Colour:	Clear to light yellow.
Odour :	Characteristic.
Odour Threshold:	No information available.
pH:	9.5 - 10.5
Specific Gravity (water = 1) :	1.10 1.15
Melting point/Freezing point:	-15°C
Boiling point:	199°C
Flammability (solid,gas):	Not Applicable.
Upper Explosive Limit:	No information available.
Lower Explosive Limit:	No information available.
Flash Point:	>93°C closed cup
Auto-ignition Temperature:	>400°C
Decomposition Temperature:	No information available.
Viscosity:	21 cP at 20°C
Vapour Pressure :	2.0 mm Hg at 20°C
Vapour Density (air = 1) :	2.14
Evaporation Rate :	No information available.
Solubility in Water :	Miscible.
Partition Coefficient n-Octanol/Water:	No information available.

SECTION 10 : STABILITY AND REACTIVITY

Reactivity:	Material is non reactive under normal conditions.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur.
Conditions to Avoid:	Contact with incompatible materials. Excess heat. Exposure to moist air or water.
Incompatible Materials:	Strong acids. Strong oxidizing agents, Strong reducing agents.
Hazardous Decomposition Products:	Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Alcohols. Ethers. Organic acids.

SECTION 11 : TOXICOLOGICAL INFORMATION

Primary route of exposure: Eye contact, skin contact, ingestion and inhalation.
Skin corrosion/irritation: Prolonged contact may cause temporary irritation.
Serious eye damage/irritation: May cause slight eye irritation. Mist may cause eye irritation.
Respiratory or skin sensitization: Did not cause allergic skin reactions when tested in guinea pigs.
Germ cell mutagenicity: No information available.
Carcinogenicity: Ingredients are not listed as carcinogen by ACGIH, or NTP. IARC list sodium nitrite as 2A - Group 2A: Probably carcinogenic to humans.
Reproductive toxicity: Ingestion of large amounts of ethylene glycol has been shown to interfere with reproduction in animals. In animal studies, boron compounds have been shown to interfere with fertility in males, and to a lesser degree in females.
STOT-single exposure: No information available.
STOT-repeated exposure: Causes damage to organs (kidney, liver) through prolonged or repeated exposure.
Aspiration hazard: No information available.

Component Acute Toxicity Information

COMPONENT	CAS No.	ORAL LD ₅₀	DERMAL LD ₅₀	INHALATION LC ₅₀
Ethylene Glycol	107-21-1	7712 mg/Kg (rat)	10600 mg/Kg (Rat)	Not available
Sodium Nitrite	7632-00-0	180 mg/Kg (rat)	Not available	Not available
Sodium tetraborate, pentahydrate	12179-04-3	4500-5000 mg/Kg (Rat)	10000mg/Kg (Rabbit)	Not available

SECTION 12 : ECOLOGICAL INFORMATION

COMPONENT	CAS No.	Freshwater Algae	Freshwater Fish	Water Flea
Ethylene Glycol	107-21-1	EC ₅₀ : 6500-13000 mg/L, 96h (Pseudokirchneriella)	LC ₅₀ : 72860 mg/L 48h (Pimephales promelas)	EC ₅₀ : >100 mg/L, 48h (Daphnia magna)
Sodium Nitrite	7632-00-0	Not Available	LC ₅₀ : 0.09-0.13 mg/L 96h (Oncorhynchus mykiss)	12.5 - 100 mg/L 48h

Toxicity: No information available.
Persistence and degradability: Material is readily biodegradable.
Bioaccumulative potential: No information available.
Mobility in soil: Will likely be mobile in the environment due to its water solubility.
Other adverse effects: No information available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste disposal of substance: Dispose of in accordance with national, state/provincial and regional regulations.
Container disposal: Dispose of in accordance with national, state/provincial and regional regulations.

SECTION 14 : TRANSPORT INFORMATION

T.D.G./D.O.T. Classification:

Shipping Name: Not Regulated
UN Number: Not Applicable **Class:** Not Applicable **Packing Group** Not Applicable

SECTION 15 : REGULATORY INFORMATION

WHMIS Classification:



Class D1: Material Causing Immediate & Serious Toxic Effects



Class D2: Material Causing Other Toxic Effects

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulation (HPR), Hazard

SECTION 16 : OTHER INFORMATION

Preparation Information:

Latest Revision Date: 23-Apr-2019

Issue Date: 7-Nov-2017

Version No. 1.01

Revision Notes: This document has been updated to comply with the Globally Harmonized System of Classification

Prepared By: Regulatory Affairs.

Ethylene Glycol Inhibitor

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