

SAFETY DATA SHEET



Section 1. Identification

GHS product identifier :
Product code : Not available.
Chemical name :
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Soil Stabilization and Waterstop.

Supplier's details :

Manufacturer :

Emergency telephone number (with hours of operation) : CHEMTREC, U.S.: 1-800-424-9300
International: +1-703-527-3887
24/7

Section 2. Hazard(s) identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms :



Signal word : Warning

Section 2. Hazard(s) identification

Hazard statements	: H319 - Causes serious eye irritation.
Precautionary statements	
Prevention	: P280 - Wear eye or face protection. P264 - Wash thoroughly after handling.
Response	: P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Storage	: Not applicable.
Disposal	: Not applicable.
Hazards not otherwise classified (US)	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Chemical name	:
Other means of identification	: Not available.

Ingredient name	% (w/w)	CAS number
2,2' -Oxybisethanol	5 - 10	111-46-6
Ethenediol	1 - 5	107-21-1
1,4-Diazabicyclooctane	0.5 - 1.5	280-57-9

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

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

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical or CO₂. Water spray for large fires.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : 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.

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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 and materials for containment and 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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.

Advice on general occupational hygiene : 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. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

Ingredient name	Exposure limits
2,2' -Oxybisethanol	AIHA WEEL (United States, 7/2020). TWA: 10 mg/m ³ 8 hours.
Ethanediol	ACGIH TLV (United States, 3/2020). STEL: 10 mg/m ³ 15 minutes. Form: Inhalable fraction. Aerosol only. STEL: 50 ppm 15 minutes. Form: Vapor fraction
1,4-Diazabicyclooctane	TWA: 25 ppm 8 hours. Form: Vapor fraction None.

Canada

Occupational exposure limits

Ingredient name	Exposure limits
2,2' -Oxybisethanol	AIHA WEEL (United States, 7/2020). TWA: 10 mg/m ³ 8 hours.
Ethanediol	CA British Columbia Provincial (Canada, 1/2020). C: 100 mg/m ³ Form: Aerosol TWA: 10 mg/m ³ 8 hours. Form: Particulate STEL: 20 mg/m ³ 15 minutes. Form: Particulate C: 50 ppm Form: Vapor CA Saskatchewan Provincial (Canada, 7/2013). CEIL: 100 mg/m ³ Form: Aerosol CA Ontario Provincial (Canada, 6/2019). Ceiling Limit: 10 mg/m ³ Form: Inhalable particulate matter. Aerosol only. STEL: 50 ppm 15 minutes. Form: Vapor fraction TWA: 25 ppm 8 hours. Form: Vapor fraction CA Quebec Provincial (Canada, 7/2019). STEV: 50 ppm 15 minutes. Form: Vapor and mist STEV: 127 mg/m ³ 15 minutes. Form: Vapor and mist CA Alberta Provincial (Canada, 6/2018). C: 100 mg/m ³
1,4-Diazabicyclooctane	CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.

Section 8. Exposure controls/personal protection

TWA: 4.6 mg/m³ 8 hours.
TWA: 1 ppm 8 hours.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

- 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.
- Eye/face protection** : 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : 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.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid. [Clear.]
- Color** : Clear to light yellow.
- Odor** : Slight.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: >93.333°C (>200°F) [Pensky-Martens]

Section 9. Physical and chemical properties and safety characteristics

Evaporation rate	: Not available.
Flammability	: Not available.
Lower and upper explosion limit/flammability limit	: Not available.
Vapor pressure	: Not available.
Relative vapor density	: Not available.
Relative density	: 1.04 to 1.05
Solubility	: Slightly soluble in water.
Solubility in water	: Slightly soluble.
Miscible with water	: Not available.
Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic: 185 to 235 mPa·s (185 to 235 cP)
Flow time (ISO 2431)	: Not available.
Particle characteristics	
Median particle size	: Not applicable.

Section 10. Stability and reactivity

Reactivity	: This material reacts with isocyanates.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid extreme heat, direct sunlight, and moisture.
Incompatible materials	: Strong oxidizers, strong alkalis.
Hazardous decomposition products	: Carbon monoxide, carbon dioxide, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2,2' -Oxybisethanol	LD50 Dermal	Rabbit	11890 mg/kg	-
	LD50 Oral	Rat	12000 mg/kg	-
Ethanediol	LD50 Oral	Rat	4700 mg/kg	-
	LD50 Oral	Rat	1400 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
2,2' -Oxybisethanol Ethanediol	Eyes - Mild irritant	Rabbit	-	50 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	1 hours 100 mg	-
1,4-Diazabicyclooctane	Eyes - Moderate irritant	Rabbit	-	6 hours 1440 mg	-
	Skin - Mild irritant	Rabbit	-	555 mg	-
	Eyes - Moderate irritant	Rabbit	-	25 mg	-
	Skin - Mild irritant	Rabbit	-	2500 ug	-

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Classification Canada

Product/ingredient name	IARC	NTP	ACGIH
Ethanediol	-	-	A4

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Long term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Potential chronic health effects

- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2,2' -Oxybisethanol	3637.7	N/A	N/A	N/A	N/A
Ethenediol	500	11890	N/A	N/A	N/A
1,4-Diazabicyclooctane	500	N/A	N/A	N/A	N/A
	1400	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2,2' -Oxybisethanol Ethenediol	Acute LC50 75200000 µg/L Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 6900000 µg/L Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 41000 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
1,4-Diazabicyclooctane	Acute LC50 8050000 µg/L Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 1730000 µg/L Fresh water	Fish - Pimephales promelas	96 hours

Section 12. Ecological information

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2,2'-Oxybisethanol	-1.98	100	low
Ethenediol	-1.36	-	low
1,4-Diazabicyclooctane	-	<13	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. 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 empty 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.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

AERG : Not applicable

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 14. Transport information

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 4(a) final test rules: Octamethylcyclotetrasiloxane
TSCA 8(a) PAIR: Octamethylcyclotetrasiloxane; Decamethylcyclopentasiloxane
TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

Composition/information on ingredients

Name	%	Classification
2,2' -Oxybisethanol	≥5 - ≤10	ACUTE TOXICITY (oral) - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
Ethanediol	≥3 - ≤5	ACUTE TOXICITY (oral) - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
1,4-Diazabicyclooctane	≥1 - ≤2.3	FLAMMABLE SOLIDS - Category 1 ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Ethanediol	107-21-1	≥3 - ≤5
Supplier notification	Ethanediol	107-21-1	≥3 - ≤5

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

State regulations

Massachusetts : The following components are listed: Ethanediol

Section 15. Regulatory information

- New York** : The following components are listed: Ethanediol
New Jersey : The following components are listed: Ethanediol
Pennsylvania : The following components are listed: 2,2' -Oxybisethanol; Ethanediol
California Prop. 65

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

Ingredient name	No significant risk level	Maximum acceptable dosage level
Ethanediol	-	Yes.

Canadian lists

- Canadian NPRI** : The following components are listed: Ethanediol
CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Canada** : All components are listed or exempted.
United States (TSCA 8b) : All components are active or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method

History

- Date of issue/Date of revision** : 02/28/2022
Date of previous issue : 07/30/2019
Version : 2
Internal code : 119-033
Prepared by : KMK Regulatory Services Inc.

Section 16. Other information

Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

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.