SAFETY DATA SHEET

Section 1. Identification

GHS product identifier
Other means of

identification

Product type : Liquid

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

Not applicable

Supplier's details :

Emergency telephone number (with hours of operation)

Section 2. Hazards identification

OSHA/HCS status

: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

: Not classified.

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 19.7% There is no toxicity data available for the polymer in this product, which is exempt and categorized in a low concern functional group under the EPA's Toxic Substances Control Act (TSCA).

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

General: Read label before use. Keep out of reach of children. If medical advice is needed,

have product container or label at hand.

Prevention : Not applicable
Response : Not applicable
Storage : Not applicable
Disposal : Not applicable
Hazards not otherwise : None known.

classified

Date of issue/Date of revision : 2/4/2019 Date of previous issue : 2/4/2019 Version : 0.05 1/10

Section 3. Composition/information on ingredients

Substance/mixture
Other means of

: Mixture: Not available

identification

CAS number/other identifiers

CAS number : Not applicable

Product code :

Ingredient name	%	CAS number
2-(2-ethoxyethoxy)ethanol	1 - 5	111-90-0
(2-methoxymethylethoxy)propanol	1 - 5	34590-94-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation

occurs.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get

medical attention if symptoms occur.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

Ingestion: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position

comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact
 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: No specific data.Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

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

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

Date of issue/Date of revision : 2/4/2019 Date of previous issue : 2/4/2019 Version : 0.05 2/10

Section 4. First aid measures

See toxicological information (section 8)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

: None known.

Specific hazards arising from the chemical

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

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

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. 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 nonemergency 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. 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. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Date of issue/Date of revision : 2/4/2019 Date of previous issue : 2/4/2019 Version : 0.05 3/10

Section 7. Handling and storage

Precautions for safe handling

Protective measures Advice on general occupational hygiene

- : 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. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe 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 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

Occupational exposure limits

Ingredient name	Exposure limits
2-(2-ethoxyethoxy)ethanol	AIHA WEEL (United States, 10/2011).
· · · · · · · · · · · · · · · · · · ·	TWA: 25 ppm 8 hours.
(2-methoxymethylethoxy)propanol	ACGIH TLV (United States, 3/2016).
, , , , , , , , , , , , , , , , , , , ,	Absorbed through skin.
	TWA: 100 ppm 8 hours.
	TWA: 606 mg/m ³ 8 hours.
	STEL: 150 ppm 15 minutes.
	STEL: 909 mg/m³ 15 minutes.
	OSHA PEL 1989 (United States, 3/1989).
	Absorbed through skin.
	TWA: 100 ppm 8 hours.
	TWA: 600 mg/m ³ 8 hours.
	STEL: 150 ppm 15 minutes.
	STEL: 900 mg/m³ 15 minutes.
	NIOSH REL (United States, 10/2013).
	Absorbed through skin.
	TWA: 100 ppm 10 hours.
	TWA: 600 mg/m³ 10 hours.
	STEL: 150 ppm 15 minutes.
	STEL: 900 mg/m³ 15 minutes.
	OSHA PEL (United States, 6/2016).
	Absorbed through skin.
	TWA: 100 ppm 8 hours.
	TWA: 600 mg/m ³ 8 hours.

Appropriate engineering controls

Environmental exposure controls

- : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- 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.

Individual protection measures

Date of issue/Date of revision : 2/4/2019 Date of previous issue : 2/4/2019 Version : 0.05	Date of issue/Date of revision	: 2/4/2019	Date of previous issue	: 2/4/2019	Version : 0.05	4/10
--	--------------------------------	------------	------------------------	------------	----------------	------

Section 8. Exposure controls/personal protection

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: safety glasses with sideshields.

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.

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

Appearance

Physical state : Liquid
Color : White
Odor : Bland

Odor threshold : Not available

pH : 8

Melting point : 0°C (32°F)

Boiling point : 100°C (212°F)

Flash point : Closed cup: >93.334°C (>200°F)

Evaporation rate : Not available
Flammability (solid, gas) : Not available
Lower and upper explosive : Not available

(flammable) limits

Vapor pressure : <4 kPa (<30 mm Hg) [room temperature]

Vapor density: <1 [Air = 1]</th>Specific gravity: 1.05 g/cm³Solubility: Not available

Partition coefficient: n-

octanol/water

: Not available

Auto-ignition temperature : Not available : Not available Viscosity : Not available : 219.6 g/l

VOCs are calculated following the requirements under 40 CFR, Part 59, Subpart C for Consumer Products and Subpart D for Architectural Coatings

Date of issue/Date of revision: 2/4/2019Date of previous issue: 2/4/2019Version: 0.055/10

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

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 : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-(2-ethoxyethoxy)ethanol (2-methoxymethylethoxy) propanol	LD50 Oral LD50 Dermal		7500 mg/kg 9500 mg/kg	-
propulsor	LD50 Oral	Rat	5135 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-(2-ethoxyethoxy)ethanol	Eyes - Mild irritant	Rabbit	-	125 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
(2-methoxymethylethoxy) propanol	Eyes - Mild irritant	Human	-	8 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitization

Not available

Mutagenicity

Not available

Carcinogenicity

Not available

Reproductive toxicity

Not available

Teratogenicity

Not available

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Not available

Specific target organ toxicity (repeated exposure)

Not available

Aspiration hazard

Not available

Information on the likely

: Not available

routes of exposure

Potential acute health effects

Eye contact
 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

Eye contact: No specific data.Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

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

Short term exposure

Potential immediate :

effects

: Not available

Potential delayed effects : Not available

Long term exposure

Potential immediate : Not available

effects

Potential delayed effects : Not available

Potential chronic health effects

Not available

General : No known significant effects or critical hazards.
 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.

Numerical measures of toxicity

Acute toxicity estimates

Not available

Date of issue/Date of revision : 2/4/2019 Date of previous issue : 2/4/2019 Version : 0.05 7/10

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-(2-ethoxyethoxy)ethanol	. •	Daphnia - Daphnia magna - Neonate	48 hours
		Fish - Ictalurus punctatus	96 hours

Persistence and degradability

Not available

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-(2-ethoxyethoxy)ethanol	-0.54	-	low
(2-methoxymethylethoxy)	0.004	-	low
propanol			

Mobility in soil

Soil/water partition coefficient (Koc)

: 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 at all times 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. 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	IMDG	IATA
UN number	Not regulated	Not regulated	Not regulated
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Date of issue/Date of revision : 2/4/2019 Date of previous issue : 2/4/2019 Version : 0.05 8/10

Section 14. Transport information

Additional	-	-	-
information			

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.

Transport in bulk according

: Not available

to Annex II of MARPOL and

the IBC Code

Section 15. Regulatory information

: United States inventory (TSCA 8b): All components are listed or exempted. U.S. Federal regulations

Clean Air Act Section 112

(b) Hazardous Air **Pollutants (HAPs) SARA 311/312**

Listed

Classification : Not applicable **Composition/information on ingredients**

Name	%	Fire hazard	Sudden release of pressure	Reactive		Delayed (chronic) health hazard
2-(2-ethoxyethoxy)ethanol (2-methoxymethylethoxy)propanol	1 - 5 1 - 5	No. Yes.		No. No.	Yes. Yes.	No. No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	2-(2-ethoxyethoxy)ethanol	111-90-0	2.7888

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

International regulations

Canada inventory : All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Date of previous issue Date of issue/Date of revision : 2/4/2019 : 2/4/2019 Version : 0.05 9/10

Section 16. Other information

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of printing : 2/4/2019

Date of issue/Date of : 2/4/2019

revision

Date of previous issue : 2/4/2019

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)

UN = United Nations

References : Not available

▼ 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.

Date of issue/Date of revision : 2/4/2019 Date of previous issue : 2/4/2019 Version : 0.05 10/10