DIGLYCOLAMINE®

Version	Revision Date:	SDS Number:	Date of last issue: 05/26/2022
1.5	06/16/2025	400001000972	Date of first issue: 12/04/2015

Print Date 06/21/2025

SECTION 1. IDENTIFICATION

Product name : DIGLYCOLAMINE®

Manufacturer or supplier's details

Company name of supplier : Huntsman International LLC
Address : P.O. Box 4980
The Woodlands,
TX 77387
United States of America (USA)
Telephone : TechInfo: (281) 719-7780

E-mail address : Global_Product_EHS_HPP@huntsman.com

Emergency telephone : Chemtrec: (800) 424-9300 or (703) 527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Gas treating

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion : Category 1

Serious eye damage : Category 1

Other hazards

None known.

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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 person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
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. Immediately call a POISON CENTER/ doctor.
P363 Wash contaminated clothing before reuse.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
2-(2-aminoethoxy)ethanol	929-06-6	90 - 100
N-Alkyl (C 2-40)-N-polyoxyalkylene (C2-3) amine	106007-99-2	1 - 5

The specific chemical identity and/or exact percentage (concentration) of composition may be withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance.
Treat symptomatically.
Get medical attention if symptoms occur.

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Small amounts splashed into eyes can cause irreversible

tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed : Causes serious eye damage.
Causes severe burns.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Avoid inhalation, ingestion and contact with skin and eyes.
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.

Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : Exercise caution when using a high volume water jet as it may scatter and spread fire

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)

Specific extinguishing : Use extinguishing measures that are appropriate to local

methods		circumstances and the surrounding environment.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Neutralize with acid. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Advice on safe handling	:	Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Keep in properly labeled containers.
Materials to avoid	:	Do not store near acids.

Further information on storage stability	:	Stable under normal conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection	:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Hand protection		
Remarks	:	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. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	colorless

Odor	:	amine-like
Odor Threshold	:	No data is available on the product itself.
pH	:	11.8 (68 °F / 20 °C) Concentration: ca. 15 %
Freezing point	:	9.5 °F / -12.5 °C
Boiling point	:	432.5 - 434.8 °F / 222.5 - 223.8 °C (1,013 hPa)
Flash point	:	261 °F / 127 °C Method: Pensky-Martens closed cup
Evaporation rate	:	No data is available on the product itself.
Flammability (solid, gas)	:	No data is available on the product itself.
Flammability (liquids)	:	No data is available on the product itself.
Upper explosion limit / Upper flammability limit	:	11.7 %(V)
Lower explosion limit / Lower flammability limit	:	2.6 %(V)
Vapor pressure	:	0.002 hPa (77 °F / 25 °C)
Relative vapor density	:	3.6
Relative density	:	1.06 (68 °F / 20 °C)
Density	:	No data is available on the product itself.
Solubility(ies)		
Water solubility	:	completely miscible
Solubility in other solvents	:	Solvent: Methanol Description: soluble
Partition coefficient: n-octanol/water	:	log Pow: -1.89 (68 °F / 20 °C)
Autoignition temperature	:	698 °F / 370 °C
Decomposition temperature	:	No data is available on the product itself.
Self-Accelerating decomposition temperature (SADT)	:	No data is available on the product itself.
Viscosity		

Viscosity, dynamic	:	48.688 mPa.s (77 °F / 25 °C)
Explosive properties	:	No data is available on the product itself.
Oxidizing properties	:	None.
Molecular weight	:	105.16 g/mol
Particle size	:	No data is available on the product itself.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No hazards to be specially mentioned.
Conditions to avoid	:	None known.
Incompatible materials	:	None known.
Hazardous decomposition products	:	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified due to lack of data.

Product:

Acute oral toxicity	:	Acute toxicity estimate: 3,503 mg/kg Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: 2,576 mg/kg Method: Calculation method

Components:

2-(2-aminoethoxy)ethanol:

Acute oral toxicity	:	LD50 (Rat, male and female): ca. 3,400 mg/kg Method: OECD Test Guideline 401 GLP: yes
Acute inhalation toxicity	:	LC50 (Rat, male and female): > 8.7 mg/m3 Exposure time: 8 h Test atmosphere: vapor Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit, male and female): > 3,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

Skin corrosion/irritation

Causes severe burns.

Product:

Species	:	Rabbit
Assessment	:	Causes burns.
Method	:	OECD Test Guideline 404
Result	:	Corrosive after 3 minutes to 1 hour of exposure

Components:

2-(2-aminoethoxy)ethanol:

Species	:	Rabbit
Assessment	:	Causes burns.
Method	:	OECD Test Guideline 404
Result	:	Corrosive after 3 minutes to 1 hour of exposure

N-Alkyl (C 2-40)-N-polyoxyalkylene (C2-3) amine:

Assessment	:	Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days.

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

2-(2-aminoethoxy)ethanol:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Assessment	:	Risk of serious damage to eyes.

N-Alkyl (C 2-40)-N-polyoxyalkylene (C2-3) amine:

Result	:	Risk of serious damage to eyes.

Respiratory or skin sensitisation

Skin sensitisation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Not classified due to lack of data.

Product:

Exposure routes	:	Skin
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitisation.

Components:

2-(2-aminoethoxy)ethanol:

Test Type	:	In Chemico Skin Sensitisation: Direct Peptide Reactivity Assay (DPRA)
Species	:	Not tested on animals
Method	:	OECD Test Guideline 442C
Result	:	negative
GLP	:	yes
Test Type	:	KeratinoSens assay
Species	:	Not tested on animals
Method	:	OECD Test Guideline 442D
Result	:	negative
GLP	:	yes
Test Type	:	Dendritic cell activation test
Species	:	Not tested on animals
Method	:	OECD Test Guideline 442E
GLP	:	yes

Germ cell mutagenicity

Not classified due to lack of data.

Components:

2-(2-aminoethoxy)ethanol:

Genotoxicity in vitro	:	Test Type: gene mutation test Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative GLP: yes Test Type: in vitro test Metabolic activation: without metabolic activation Method: Regulation (EC) No. 440/2008, Annex, B.21 Result: negative
Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse (male) Application Route: Intraperitoneal injection Dose: 62.5/125/250 mg/kg Method: OECD Test Guideline 474 Result: negative GLP: yes

Carcinogenicity

Not classified due to lack of data.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified due to lack of data.

Product:

Effects on fertility : Species: Rat, male and female
Application Route: Inhalation
Method: OECD Test Guideline 422

Species: Rat, male and female
Application Route: Dermal
Method: OECD Test Guideline 411

Effects on fetal development : Species: Rat, male and female
Application Route: Inhalation
General Toxicity Maternal: NOAEL: 40 mg/m³
Method: OECD Test Guideline 422
Result: No teratogenic effects

Components:

2-(2-aminoethoxy)ethanol:

Effects on fertility : Species: Rat, male and female
Application Route: Oral
Dose: 113/340/1129 mg/kg bw/d
General Toxicity Parent: NOAEL: 340 mg/kg body weight
General Toxicity F1: NOAEL: 340 mg/kg body weight
Method: OECD Test Guideline 443
GLP: yes

Effects on fetal development : Test Type: Pre-natal
Species: Rat, female
Dose: 100/300/1000 milligram per kilogram
Duration of Single Treatment: 14 d
Frequency of Treatment: 7 days/week
General Toxicity Maternal: NOAEL: 300 mg/kg body weight
Developmental Toxicity: NOAEL: >= 1,000 mg/kg body weight
Method: OECD Test Guideline 414

Test Type: Pre-natal
Species: Rabbit, female
Dose: 20/70/200 milligram per kilogram
Duration of Single Treatment: 23 d
Frequency of Treatment: 7 days/week
General Toxicity Maternal: NOAEL: >= 200 mg/kg body weight
Developmental Toxicity: NOAEL: >= 200 mg/kg body weight
Method: OECD Test Guideline 414

STOT-single exposure

Not classified due to lack of data.

STOT-repeated exposure

Not classified due to lack of data.

Repeated dose toxicity

Components:

2-(2-aminoethoxy)ethanol:

Species	:	Rat, male and female
NOAEL	:	340 mg/kg
LOAEL	:	1,129 mg/kg
Application Route	:	oral (feed)
Number of exposures	:	7 days/week
Dose	:	113/350/1129 mg/kg bw/day
Method	:	Subchronic toxicity
GLP	:	yes

Species	:	Rat, male and female
NOAEL	:	15000 ppm
Application Route	:	oral (feed)
Number of exposures	:	7 days/week
Dose	:	1500/5000/15000 ppm
Method	:	OECD Test Guideline 422
GLP	:	yes

Species	:	Rat, male and female
	:	>= 40 mg/m3
Application Route	:	inhalation (dust/mist/fume)
Exposure time	:	29 - 48 days 6 h
Number of exposures	:	7 days/week
Method	:	OECD Test Guideline 422
GLP	:	yes

Species	:	Rat, male and female
	:	175 mg/kg bw/day
Application Route	:	Dermal
Exposure time	:	90 6 h
Number of exposures	:	7 days/week
Dose	:	17/87/175 mg/kg bw/day

Aspiration toxicity

Not classified due to lack of data.

Experience with human exposure

No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information
No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

2-(2-aminoethoxy)ethanol:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): > 681 mg/l End point: mortality Exposure time: 96 h Test Type: static test Test substance: Fresh water Method: DIN 38412
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 500 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: Directive 67/548/EEC, Annex V, C.2.
Toxicity to algae/aquatic plants	:	ErC50 (Desmodesmus subspicatus (green algae)): 202 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: DIN 38412 EC10 (algae): 23.3 mg/l Exposure time: 72 h Method: QSAR GLP: no Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Toxicity to microorganisms	:	EC50 (Pseudomonas putida): 110 mg/l Exposure time: 17 h Test Type: static test Test substance: Fresh water Method: DIN 38 412 Part 8 EC10 (Pseudomonas putida): 28 mg/l Exposure time: 17 h Test Type: static test Test substance: Fresh water Method: DIN 38 412 Part 8

Persistence and degradability

Components:

2-(2-aminoethoxy)ethanol:

Biodegradability : aerobic
Inoculum: activated sludge, non-adapted
Result: Readily biodegradable.
Biodegradation: 90 - 100 %
Exposure time: 17 d
Method: OECD Test Guideline 301A
Test substance: Fresh water
Remarks: Information given is based on data on the components and the ecotoxicology of similar products.

Bioaccumulative potential

Components:

2-(2-aminoethoxy)ethanol:

Bioaccumulation : Bioconcentration factor (BCF): 9.18

Partition coefficient: n-octanol/water : log Pow: -1.89 (68 °F / 20 °C)

Mobility in soil

Components:

2-(2-aminoethoxy)ethanol:

Distribution among environmental compartments : log Koc: 1.12 - 1.13
Method: Calculation method

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of contents and container in accordance with all local, regional, national and international regulations.
Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 3055
Proper shipping name	:	2-(2-AMINOETHOXY)ETHANOL
Class	:	8
Packing group	:	III
Labels	:	8
Environmentally hazardous	:	no

IATA-DGR

UN/ID No.	:	UN 3055
Proper shipping name	:	2-(2-Aminoethoxy)ethanol
Class	:	8
Packing group	:	III
Labels	:	Corrosive
Packing instruction (cargo aircraft)	:	856
Packing instruction (passenger aircraft)	:	852

IMDG-Code

UN number	:	UN 3055
Proper shipping name	:	2-(2-AMINOETHOXY)ETHANOL
Class	:	8
Packing group	:	III
Labels	:	8
EmS Code	:	F-A, S-B
Marine pollutant	:	no

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 3055
Proper shipping name	:	2-(2-Aminoethoxy) ethanol
Class	:	8
Packing group	:	III
Labels	:	CORROSIVE
ERG Code	:	154
Marine pollutant	:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 311/312 Hazards : Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

The following chemical(s), >= 0.1%, are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

Ethylene glycol 107-21-1

California Prop. 65

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

DSL : All components of this product are on the Canadian DSL

TSCA : All substances listed as active on the TSCA inventory

TSCA - 5(a) Significant New Use Rule List of Chemicals

No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No substances are subject to TSCA 12(b) export notification requirements.

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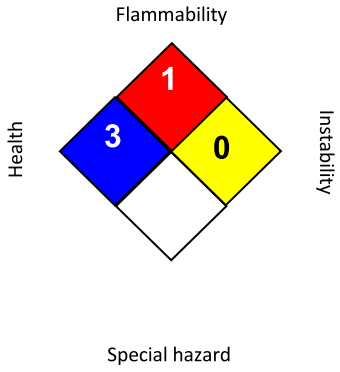
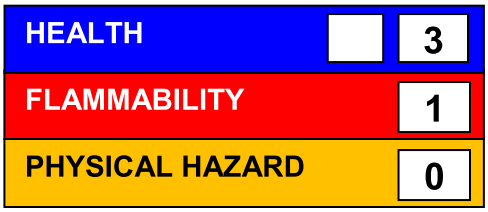
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard

Revision Date : 06/16/2025

The information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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