

Section 1: Identification

Product Name Diethanolamine (Liquid)
Commercial Name Not available.
Product Use Laboratory chemicals
Restrictions On Use Food, drug, pesticide or biocidal product use.
Product Code 50-1302
Company PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: Acute Toxicity - Oral [Category 4] Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 1]
CFR 1910.1200 Carcinogenicity [Category 2] Toxic to Reproduction [Category 2] Specific Target Organ Toxicity (Repeated Exposure) [Category 2] Target Organs - Liver, Blood, Kidney, Central nervous system (CNS)

Signal Word DANGER

Hazard Statement(s) Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Suspected of causing cancer. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention	Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Do not breathe dust/fume/gas/mist/vapors/spray
Response	IF exposed or concerned: Get medical attention/advice Skin IF ON SKIN: Wash with plenty of soap and water If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse Eyes 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 or doctor/physician Ingestion IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth
Storage	Store locked up.
Disposal	Dispose of contents/container to an approved waste disposal plan

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Diethanolamine
% By Weight <=100
CAS# 111-42-2
Molecular Weight 105.14 g/mole
Chemical Formula C₄H₁₁NO₂
Synonym(s) 2,2'-Iminodiethanol

Mixtures				
Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Diethanolamine	111-42-2	<=100	TWA: 2 (mg/m ³)	ORAL (LD50):Acute: 710mg/kg [Rat]. DERMAL (LD50):Acute: 12200mg/kg [Rabbit].

Section 4: First-Aid Measures

Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Symptoms/Effects	
Acute	None reasonably foreseeable. Causes severe eye damage
Delayed	None reasonably foreseeable. Causes severe eye damage
Immediate Medical Attention	
Treat symptomatically	

Section 5: Fire-Fighting Measures**Suitable Extinguishing Media**

Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.

Unsuitable Extinguishing Media

Not available. Flash Point: 176C/348.8F Method - CC (closed cup)

Products of Combustion

Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

Firefighters Special Equipment and Precautions

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

Environmental Precautions Do not flush into surface water or sanitary sewer system. Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Handling: Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation. **Storage.** Keep containers tightly closed in a dry, cool and well-ventilated place. **Incompatible Materials.** Strong oxidizing agents. Acids. copper. Copper alloys. Aluminium.

Section 8: Exposure Controls/Personal Protection

Exposure Limits	ACGIH TLV: TWA: 1 mg/m ³ Skin OSHA PEL: (Vacated) TWA: 3 ppm (Vacated) TWA: 15 mg/m ³ NIOSH IDLH: TWA: 3 ppm TWA: 15 mg/m ³ Mexico OEL (TWA); TWA: 2 mg/m ³
Engineering Controls	Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.
Personal Protection	Eye/face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Tight sealing safety goggles. Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure. Respiratory Protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and Chemical Properties

Appearance	Colorless Solid.		
Odor	Ammonia-like		
Odor Threshold	Not available.		
Melting Point	27 - 30 °C / 80.6 - 86 °F	pH	11 53 g/L (20°C)
Freezing Point	Not available.	Vapor Pressure	2 hPa @ 10 °C
Boiling Point/Range	269.9 °C / 517.8 °F	Vapor Density	Not applicable.
Decomposition temperature	259 °C	Viscosity	Not available.
Partition Coefficient: n-octanol/water	Not available.	Evaporation Rate	Not available.
Flash Point	176 °C / 348.8 °F CC (clos	Autoignition temperature	370 °C / 698 °F
Flammability	Not flammable or combustibl	Flammability or Explosive Limits:	
		Lower	2.1 vol %
		Upper	10.6 vol %
Solubility(ies)	Soluble in water		
Other	Molecular Formula: C4H11NO2 Molecular Weight: 105.14		

Section 10: Stability and Reactivity

Reactivity	None known, based on information available.
Chemical Stability	Stable under normal conditions.
Hazardous Polymerization	Hazardous polymerization does not occur
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation.
Incompatible Materials	Strong oxidizing agents, Acids, copper, Copper alloys, Aluminium
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx)

Section 11: Toxicological Information

RTECS	KL2975000
Acute Toxicity	
LD50 Oral: LD50 = 780 mg/kg (Rat) LD50 Dermal: LD50 = 11.9 mL/kg (Rabbit) LC50 Inhalation: Not listed	
Skin Corrosion/Irritation	
Irritating to skin	
Serious Eye Damage/Irritation	
Risk of serious damage to eyes Severe eye irritant	
Respiratory or Skin Sensitization	
Not available	
Germ Cell Mutagenicity	
Not available	
Carcinogenicity	
IARC: Group 2B (Possibly Carcinogenic to Humans). NTP: Not listed. ACGIH: A3 (Confirmed Animal Carcinogen). OSHA: X.	
Mexico: A3 (Animal Carcinogen).	
Reproductive Toxicity	
Not available	
Routes of Entry	
Eyes. Skin.	
Symptoms Related to Exposure	
Not available.	



Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Diethanolamine (Liquid)

50-1302

Potential Health Effects

Other Adverse Effects: The toxicological properties have not been fully investigated.

Target Organ(s) STOT - repeated exposure Liver Blood Kidney Central nervous system (CNS)

Section 12: Ecological Information

Ecotoxicity

Freshwater Algae: EC50: 2.1 - 2.3 mg/L, 96h (Pseudokirchneriella subcapitata) EC50: = 7.8 mg/L, 72h (Desmodesmus subspicatus) Freshwater Fish: Pimephals promelas: LC50: 140 mg/L/96h Microtox: EC50 = 73 mg/L 5 min EC50 > 16 mg/L 16 h Water Flea: EC50: = 55 mg/L, 48h (Daphnia magna)

Persistence and Degradability

Persistence is unlikely

Bioaccumulative Potential

Not available

Mobility in Soil

Will likely be mobile in the environment due to its water solubility. Diethanolamine: log Pow (-2.46).

Other Adverse Effects

Not available.

Section 13: Disposal Considerations

Waste Disposal

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Disposal of Container

Not available.

Other Considerations

Not available

Section 14: Transport Information

DOT Classification

DOT: Not regulated. TDG: Not regulated. Technical name: Diethanolamine IATA: Not regulated. Technical name: Diethanolamine IMDG/IMO: Not regulated. Technical name: Diethanolamine

Section 15: Regulatory Information

Regulations

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT) Not applicable TSCA 12(b) - Notices of Export Not applicable International Inventories Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL). Component CAS No DSL NDSL EINECS PICCS ENCS ISHL AICS IECSC KECL Diethanolamine 111-42-2 X - 203-868-0 X X X X X KE-20959 KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>) U.S. Federal Regulations SARA 313 Component CAS No Weight % SARA 313 - Threshold Values % Diethanolamine 111-42-2 <=100 1.0 SARA 311/312 Hazard Categories See section 2 for more information CWA (Clean Water Act) Not applicable Clean Air Act Component HAPS Data Class 1 Ozone Depleters Class 2 Ozone Depleters Diethanolamine X - OSHA - Occupational Safety and Health Administration Not applicable CERCLA This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) Component Hazardous Substances RQs CERCLA EHS RQs Diethanolamine 100 lb - California Proposition 65 This product contains the following Proposition 65 chemicals. Component CAS No California Prop. 65 Prop 65 NSRL Category Diethanolamine 111-42-2 Carcinogen - Carcinogen U.S. State Right-to-Know Regulations Component Massachusetts New Jersey Pennsylvania Illinois Rhode Island Diethanolamine X X X X X U.S. Department of Transportation Reportable Quantity (RQ): Y DOT Marine Pollutant N DOT Severe Marine Pollutant N U.S. Department of Homeland Security

Other

Not available.



Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Diethanolamine (Liquid)

50-1302

Section 16: Other Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.