



#### Section 1: Identification of the substance/mixture and of the company /undertaking

##### 1.1. Product identifier

**Product form:** Substance

**Trade name:** Polyol

**Chemical name:** ETHOXYLATED, PROPOXYLATED ETHYLENEDIAMINE

**CAS No:** 26316-40-5

**Formula:** (C3H60.C2H8N2.C2H40)

**Synonyms:** Ethylenediamine, ethoxylated and propoxylated / Polymer, 1,2-ethanediamine with methyloxirane and oxirane / 1,2-Ethanediamine, polymer with 2-methyloxirane and oxirane / Tetronic 304 surfactant / Ethylene oxide-propylene oxide copolymer ethylenediamine ether / Ethylene oxide-propylene oxide copolymer ether with ethylenediamine / Oxirane, 2-methyl-polymer with oxirane, 1,2-Ethanediylbis(nitrilodialkylene) ether / Ethylenediamine, ethoxylated and propoxylated / Polymer, 1,2-ethanediamine with methyloxirane and oxirane / 1,2-Ethanediamine, polymer with 2-methyloxirane and oxirane / Tetronic 304 surfactant / Ethylene oxide-propylene oxide copolymer ethylenediamine ether / Ethylene oxide-propylene oxide copolymer ether with ethylenediamine / Oxirane, 2-methyl-polymer with oxirane, 1,2-Ethanediylbis(nitrilodialkylene) ether

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Use of the substance/mixture:** chemical intermediate for urethane polymer production

##### 1.3. Details of the supplier of the safety data sheet

Railroad Solutions

100 South Santa Fe Drive

Denver, CO 80223 - USA

Phone: 303.777.9692 email: raab@r-sols.com website: www.r-sol.com

##### 1.4 Emergency Telephone:

24 HR CHEMTREC - 1-800-424-9300

24 HR Emergency Assistance - 1-270-422-6860

#### Section 2: Hazards Identification

##### 2.1 Classification of the substance or mixture:

Classification according to GHS

Eye Irrit. 2; H319

Skin Sens. 1; H317

Full text of H-phrases: see section 16

##### 2.2 Label elements:

GHS-US labeling

**Hazard pictograms (GHS-US)**



**Signal word (GHS-US):** Warning

**Hazard statements (GHS-US):** H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

##### Precautionary statements (GHS-US):

P261 - Avoid breathing fume spray, vapors

P264 - Wash hands thoroughly after handling

P272 - Contaminated work clothing must not be allowed out of the workplace

P280 - Wear eye protection protective clothing, protective gloves

P302+P352 - If on skin: Wash with plenty of water

P305+P351+P338 - If in eyes Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P321 - Specific treatment (see a doctor on this label)

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention

**Section 2: Hazards Identification, continued**

P337+P313 - If eye irritation persists: Get medical advice/attention  
P362+P364 - Take off contaminated clothing and wash it before reuse  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

**2.3. Other hazards**

No additional information available

**2.4. Unknown acute toxicity (GHS US)**

Not applicable

**Section 3: Composition/information on ingredients****3.1. Substance**

Common Name	Product Identifier	%	Classification (GHS-US)
Ethoxylated, Propoxylated Ethylenediamine (Main constituent)	(CAS No) 26316-40-5	99-100	Eye Irrit. 2A, H319 Skin Sens., H317

Full text of H-phrases: see section 16

**3.2. Mixture**

Not applicable

**Section 4: First aid measures****4.1. Description of first aid measures**

**First-aid measures general:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid measures after inhalation:** Allow victim to breathe fresh air. Allow the victim to rest.

**First-aid measures after skin contact:** Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. If skin irritation or rash occurs: Gently wash with plenty of soap and water, Get medical advice/attention. Get medical advice/attention. Specific treatment (see Wash skin with plenty of water on this label). Wash contaminated clothing before reuse.

**First-aid measures after eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Consult an eye specialist. Get medical advice/attention.

**First-aid measures after ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**

**Symptoms/injuries after inhalation:** May cause an allergic skin reaction.

**Symptoms/injuries after eye contact:** Causes serious eye irritation.

**4.3. Indication of any immediate medical attention and special treatment needed**

No additional information available



### Section 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media:** Foam. Dry powder. Carbon dioxide. Water spray. Sand.

**Unsuitable extinguishing media:** Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

**Firefighting instructions:** Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

**Protection during firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

### Section 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

**Emergency procedures:** Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

**Protective equipment:** Equip cleanup crew with proper protection.

**Emergency procedures:** Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up:** Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### Section 7: Handling and storage

#### 7.1. Precautions for safe handling

**Precautions for safe handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing fume, spray, vapors.

**Hygiene measures:** Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Keep only in the original container in a cool, well ventilated place away from: Ignition sources, Incompatible materials. Keep container closed when not in use.

**Incompatible products:** Strong bases. Strong acids.

**Incompatible materials:** Sources of ignition. Direct sunlight.

#### 7.3. Specific end use(s)

No additional information available



**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

ETHOXYLATED, PROPOXYLATED ETHYLENEDIAMINE (26316-40-5)

**ACGIH** Not applicable

**OSHA** Not applicable

**8.2. Exposure controls**

**Personal protective equipment:** Avoid all unnecessary exposure.

**Hand protection:** Wear protective gloves.

**Eye protection:** Chemical goggles or safety glasses.

**Respiratory protection:** Wear appropriate mask.

**Other information:** Do not eat, drink or smoke during use

**Section 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**Physical state:** Liquid

**Appearance:** Colorless to pale yellow liquid.

**Color:** Colorless to yellow

**Odor:** mild

**Odor threshold:** No data available

**pH:** 10- 11.9 (@ 25 Deg. C)

**Melting point:** No data available

**Freezing point:** No data available

**Boiling point:** No data available

**Flash point:** 252°C

**Relative evaporation rate (butyl acetate=1):** No data available

**Flammability (solid, gas):** No data available

**Explosion limits:** No data available

**Explosive properties:** No data available

**Oxidizing properties:** No data available

**Vapor pressure:** < 1 mm Hg (@ 25 Deg. C)

**Relative density:** 1-1.1

**Relative vapor density at 20°C:** No data available

**Specific gravity / density:** 1 -1.1 g/ml

**Molecular mass:** - 500 g/mol

**Solubility:** Insoluble in water.

**Log Pow:** No data available

**Log Kow:** No data available

**Auto-ignition temperature:** No data available

**Decomposition temperature:** No data available

**Viscosity:** No data available

**Viscosity, kinematic:** No data available

**Viscosity, dynamic:** No data available

**9.2. Other information**

No additional information available



**Section 10: Stability and reactivity**

**10.1. Reactivity**

No additional information available

**10.2. Chemical stability**

Not established.

**10.3. Possibility of hazardous reactions**

Not established.

**10.4. Conditions to avoid**

Direct sunlight. Extremely high or low temperatures.

**10.5. Incompatible materials**

Strong acids. Strong bases.

**10.6. Hazardous decomposition products fume.**

Carbon monoxide. Carbon dioxide.

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

Acute toxicity	: Not classified
<b>Ethoxylated, Propoxylated Ethylenediamine (26316-40-5)</b>	
LD50 oral (rat)	3 - 5 g/kg
LD50 dermal (rabbit)	> 2000 mg/kg
ATE US (oral)	3000.000 mg/kg body weight

**Skin corrosion/irritation:** Not classified. pH: 10 -11.9 (@25 Deg. C)

**Serious eye damage/irritation:** Causes serious eye irritation. pH: 10 -11.9 (@25 Deg. C)

**Respiratory or skin sensitization:** May cause an allergic skin reaction.

**Germ cell mutagenicity:** Not classified

**Carcinogenicity:** Not classified

**Reproductive toxicity:** Not classified

**Specific target organ toxicity (single exposure):** Not classified

**Specific target organ toxicity (repeated exposure):** Not classified

**Aspiration hazard:** Not classified

**Potential Adverse human health effects and symptoms:** Based on available data, the classification criteria are not met.

**Symptoms/injuries after inhalation:** May cause an allergic skin reaction.

**Symptoms/injuries after eye contact:** Causes serious eye irritation.



**Section 12: Ecological information**

**12.1. Toxicity**

**Ethoxylated, Propoxylated Ethylenediamine (26316-40-5)**

LC50 fish 1 > 100 mg/l

**12.2. Persistence and degradability**

**Ethoxylated, Propoxylated Ethylenediamine (26316-40-5)**

Persistence and degradability. Not established.

**12.3. Bioaccumulative potential**

**Ethoxylated, Propoxylated Ethylenediamine (26316-40-5)**

Bioaccumulative potential. Not established.

**12.4. Mobility in soil**

No additional information available

**12.5. Other adverse effects**

Other information : Avoid release to the environment.

**Section 13: Disposal Considerations**

**13.1. Waste treatment methods**

**Waste disposal recommendations:** Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Ecology - waste materials:** Avoid release to the environment

**SECTION 14: Transport information**

**Department of Transportation (DOT)**

In accordance with DOT

Not regulated for transport

**Additional information**

**Other information:** No supplementary information available.

**ADR**

No additional information available

**Transport by sea**

No additional information available

**Air transport**

No additional information available

**Section 15: Regulatory information**

**15.1. US Federal**

Ethoxylated, Propoxylated Ethylenediamine (26316-40-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**15.2. International regulations**

**CANADA**

Ethoxylated, Propoxylated Ethylenediamine (26316-40-5)

Listed on the Canadian DSL (Domestic Substances List)

**Section 15: Regulatory information continued****EU Regulations****Ethoxylated, Propoxylated Ethylenediamine (26316-40-5)**

Listed on the EU NLP (No Longer Polymers) inventory

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

National regulations

**Ethoxylated, Propoxylated Ethylenediamine (26316-40-5)**

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on INSQ (Mexican national Inventory of Chemical Substances)

Listed on Turkish inventory of chemical

**15.3. US State regulations****Section 16: Other information**

**Revision date: January 1, 2021**

**Other information:** None

Full text of H-phrases:

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Sens. 1	Skin sensitization Category 1
H317	May cause an allergic skin reaction
H319 Causes serious eye irritation	Causes serious eye irritation

SOS US (GHS HazCom 2012)

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