

Common Name: **2,3-EPOXY-1-PROPANOL**

Synonyms: Glycidol; Epoxypropyl Alcohol

CAS No: 556-52-5

Molecular Formula: C<sub>3</sub>H<sub>6</sub>O<sub>2</sub>

RTK Substance No: 0831

Description: Colorless, slightly thick liquid

**HAZARD DATA**

| Hazard Rating  | Firefighting  | Reactivity  |
|--|---|---|
| <p><b>4 - Health</b></p> <p><b>2 - Fire</b></p> <p><b>0 - Reactivity</b></p> <p><b>DOT#:</b> UN 2810</p> <p><b>ERG Guide #:</b> 153</p> <p><b>Hazard Class:</b> 6.1<br/>(Poison)</p> | <p><b>2,3-Epoxy-1-Propanol</b> is a COMBUSTIBLE LIQUID.</p> <p>Use dry chemical, CO<sub>2</sub>, water spray or foam as extinguishing agents.</p> <p>POISONOUS GASES ARE PRODUCED IN FIRE.</p> <p>Use water spray to keep fire-exposed containers cool.</p> | <p><b>2,3-Epoxy-1-Propanol</b> reacts violently with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE).</p> <p><b>2,3-Epoxy-1-Propanol</b> may decompose and/or polymerize, with the release of HEAT, when in contact with STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE); STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); METALS (such as ALUMINUM, COPPER and ZINC); METAL SALTS (such as IRON CHLORIDE and TIN CHLORIDE); and TRICHLOROETHYLENE.</p> |

**SPILL/LEAKS**

**Isolation Distance:**

Small Spill: 60 meters (200 feet)

Large Spill: 300 meters (1,200 feet)

Fire: 800 meters (1/2 mile)

Absorb liquids in vermiculite, dry sand, earth, or a similar material and deposit in sealed containers.

DO NOT wash into sewer.

No environmental information available.

**PHYSICAL PROPERTIES**

|                            |                          |
|----------------------------|--------------------------|
| <b>Odor Threshold:</b>     | Unknown                  |
| <b>Flash Point:</b>        | 162°F (72°C)             |
| <b>LEL:</b>                | 3.7%                     |
| <b>UEL:</b>                | Unknown                  |
| <b>Auto Ignition Temp:</b> | 779°F (415°C)            |
| <b>Vapor Density:</b>      | 2.15 (air = 1)           |
| <b>Vapor Pressure:</b>     | 0.9 mm Hg at 68°F (20°C) |
| <b>Specific Gravity:</b>   | 1.1 (water = 1)          |
| <b>Water Solubility:</b>   | Miscible                 |
| <b>Boiling Point:</b>      | 320°F (160°C)            |
| <b>Molecular Weight:</b>   | 74.1                     |

**EXPOSURE LIMITS**

**OSHA:** 50 ppm, 8-hr TWA

**NIOSH:** 25 ppm, 10-hr TWA

**ACGIH:** 2 ppm, 8-hr TWA

**IDLH:** 150 ppm

**PROTECTIVE EQUIPMENT**

|                    |  |
|--------------------|--|
| <b>Gloves:</b>     | Butyl and Silver Shield®/4H®   |
| <b>Coveralls:</b>  | DuPont Tychem® BR, LV, Responder®, and TK; Kappler® Zytron® 500; and Saint-Gobain ONESuit® TEC (>8-hr breakthrough for <i>Heterocyclic compounds, Oxygen</i> , |
| <b>Respirator:</b> | <i>Epoxides</i> )<br>>2 ppm - Supplied air   |

**HEALTH EFFECTS**

|                    |  |
|--------------------|--|
| <b>Eyes:</b>       | Irritation and burns   |
| <b>Skin:</b>       | Irritation, burns, rash, dryness and redness   |
| <b>Inhalation:</b> | Nose, throat and lung irritation with coughing, wheezing, and shortness of breath<br><br>Headache, dizziness, lightheadedness, and passing out |
| <b>Chronic:</b>    | Cancer (lung, skin, mammary glands) in animals   |

**FIRST AID AND DECONTAMINATION**

**Remove** the person from exposure.

**Flush** eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn. Seek medical attention immediately.

**Quickly** remove contaminated clothing. Immediately wash contaminated skin with large amounts of water.

**Begin** artificial respiration if breathing has stopped and CPR if necessary.

**Transfer** to a medical facility.