



HI-VALLEY CHEMICAL

LABORATORY PRODUCTS

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Ethylene Glycol

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Ethylene Glycol
SDS Number: R-048
Revision Date: 6/4/2018
Version: 1

Supplier Details: High Valley Products, Inc.
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2 HAZARDS IDENTIFICATION

Classification of Substance

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):
Health, Acute toxicity, 4 Oral
Health, Specific target organ toxicity - Repeated exposure, 2

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **WARNING**

GHS Hazard Pictograms:



GHS Hazard Statements:

H302 - Harmful if swallowed
H373 - May cause damage to organs through prolonged or repeated exposure

GHS Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P314 - Get Medical advice/attention if you feel unwell.
P330 - Rinse mouth.
P501 - Dispose of contents/container to local regulations.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients		
CAS#	%	Chemical Name
107-21-1	100%	Ethylene glycol

4 FIRST AID MEASURES

Inhalation: If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: Wash with soap and water. Consult a physician.
Eye Contact: Flush eyes with water as a precaution.
Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5

FIRE FIGHTING MEASURES

Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Carbon oxides

Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
No data

6

ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7

HANDLING AND STORAGE

Handling Precautions: Avoid contact with eyes, skin, or clothing.
Avoid breathing vapors or mist.

Storage Requirements: Keep container tightly closed in a dry well ventilated place.

8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment: Ethylene glycol (107-21-1) [100%]
Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M)

Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific

workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Do not let product enter drains.

Exposure Guidelines

Ethylene glycol (107-21-1) [100%]

Components with workplace control parameters
See Appendix D - Substances with No Established RELs

C 50 ppm USA. OSHA - TABLE Z-1 Limits for
125 mg/m³ Air Contaminants - 1910.1000

C 100 mg/m³ USA. ACGIH Threshold Limit Values
(TLV)

Eye & Upper Respiratory Tract irritation
Not classifiable as a human carcinogen

9

PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless.
Physical State:	Liquid
Specific Gravity or Density:	1.113
Boiling Point:	196 - 198 °C (385 - 388 °F)
Freezing or Melting Point:	-13 °C (9 °F)
Flash Point:	111 °C (232 °F) - closed cup
Vapor Pressure:	0.11 hPa (0.08 mmHg) at 20 °C (68 °F) - 0.13 hPa (0.10 mmHg) at 20 °C (68 °F)
Vapor Density:	2.14 - (Air = 1.0)
Evaporation Rate:	1
Autoignition Temperature:	400 °C (752 °F)Auto-flammability
Upper Flammability Limit and Lower Flammability Limit:	15.3 %(V) / 3.2 %(V)

10

STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical Stability:	Stable under recommended storage conditions.
Conditions to Avoid Identification:	No data available
Materials to Avoid Identification:	Strong Acids; Strong Bases; Strong Oxidizing Agents; Aldehydes; Aluminum
Hazardous Decomposition:	Carbon oxides.

11

TOXICOLOGICAL INFORMATION

Ethylene glycol (107-21-1) [100%]

Information on toxicological effects

Acute toxicity:

LD50 Oral - rat - 4,700 mg/kg

Inhalation: no data available

LD50 Dermal - rabbit - 10,626 mg/kg

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: Eyes - rabbit Result: Mild eye irritation - 24 h

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

This product is or contains a component that is probably not carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

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

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

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Laboratory experiments have shown teratogenic effects.

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: KW2975000

When ingested early symptoms mimic alcohol inebriation and are followed by nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary edema, hypocalcemic tetany, and severe metabolic acidosis. Without treatment, death may occur in 8 to 24 hours. Victims who survive the initial toxicity period usually develop renal failure along with brain and liver damage., Exposure to and/or consumption of alcohol may increase toxic effects.

Central nervous system - Irregularities - Based on Human Evidence

12

ECOLOGICAL INFORMATION

Ethylene glycol (107-21-1) [100%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 18,500 mg/l - 96 h.

LC50 - *Leuciscus idus* (Golden orfe) - > 10,000 mg/l - 48 h

NOEC - *Pimephales promelas* (fathead minnow) - 32,000 mg/l - 7 d

NOEC - *Pimephales promelas* (fathead minnow) - 39,140 mg/l - 96 h

Toxicity to daphnia and EC50 - *Daphnia magna* (Water flea) - 74,000 mg/l - 24 h.

other aquatic invertebrates

NOEC - *Daphnia* - 24,000 mg/l - 48 h

LC50 - *Daphnia magna* (Water flea) - 41,000 mg/l - 48 h

Persistence and degradability: no data available

Ratio BOD/ThBOD 0.78 %

Bioaccumulative potential: Does not bioaccumulate. Bioaccumulation other fish - 61 d - 50 mg/l

Bioconcentration factor (BCF): 0.60

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14 TRANSPORT INFORMATION

Non D.O.T. Regulated.

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

Ethylene glycol (107-21-1) [100%] CERCLA, HAP, MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR



WARNING

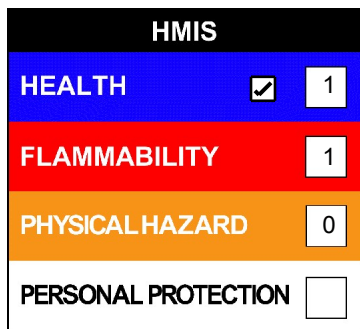
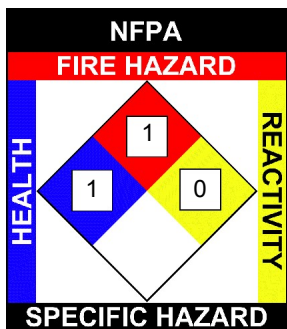
This product can expose you to chemicals including , which @VERB@ known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Regulatory CODE Descriptions

- CERCLA = Superfund clean up substance
- HAP = Hazardous Air Pollutants
- MASS = MA Massachusetts Hazardous Substances List
- NJHS = NJ Right-to-Know Hazardous Substances
- OSHA = OSHA Workplace Air Contaminants
- PA = PA Right-To-Know List of Hazardous Substances
- SARA313 = SARA 313 Title III Toxic Chemicals
- TSCA = Toxic Substances Control Act
- TXAIR = TX Air Contaminants with Health Effects Screening Level

16 OTHER INFORMATION

NFPA: Health = 1, Fire = 1, Reactivity = 0, Specific Hazard = n/a
HMIS III: Health = 1(Chronic), Fire = 1, Physical Hazard = 0



Disclaimer:

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Author: HVC

Publication Date: 5/26/16

Revision No. 1

Revision Date: 6/4/2018