

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2014

Reviewed on 05/16/2014

1 Identification

- **Product identifier**

- **Trade name:** Ethylene Glycol

- **Article number:** JLM 0715

- **CAS Number:**
107-21-1

- **EC number:**
203-473-3

- **Index number:**
603-027-00-1

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Jamson Laboratories, Inc.
101 South Bayview Blvd.
Oldsmar, FL 34677
USA

- **Information department:** Product Safety Department

- **Emergency telephone number:** ChemTel Inc. (800) 255-3924 Intl. +01 (813) 248-0585



2 Hazard(s) identification

- **Classification of the substance or mixture**

The substance is not classified according to the Globally Harmonized System (GHS).

- **Additional information:**

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.

- **Label elements**

- **GHS label elements**

- **Hazard-determining components of labeling:**

ethanediol

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

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· **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
107-21-1 ethanediol
- **Identification number(s)**
- **EC number:** 203-473-3
- **Index number:** 603-027-00-1

4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Remove contact lenses if able to do so.
Rinse opened eye for several minutes under running water.
- **After swallowing:**
A person vomiting while lying on their back should be turned onto their side.
Do not induce vomiting; immediately call for medical help.
If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
Nausea
Cyanosis
Headache
- **Danger**
Condition may deteriorate with alcohol consumption.
Danger of circulatory collapse.
Danger of pulmonary edema.
Danger of convulsion.
- **Indication of any immediate medical attention and special treatment needed**
In cases of cyanosis, administer vitamin C, oxygen, protect from sunlight.
Medical supervision for at least 48 hours.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
Dilute with plenty of water.

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- Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Unsuitable material for receptacle: aluminium.
- **Information about storage in one common storage facility:**
Do not store together with oxidizing and acidic materials.
Store away from foodstuffs.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

107-21-1 ethanediol

TLV	Ceiling limit value: 100 mg/m ³
H	

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
Neoprene gloves
PVA gloves
PVC or PE gloves
PVC gloves
Rubber gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Fluid
Color:	Colorless
Odor:	Sweetish
Odour threshold:	Not determined.

· **pH-value at 20 °C (68 °F):** 9

· Change in condition

Melting point/Melting range:	-12.4 °C (10 °F)
Boiling point/Boiling range:	197 °C (387 °F)

· **Flash point:** 111 °C (232 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 410 °C (770 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· Explosion limits:

Lower:	3.2 Vol %
Upper:	53 Vol %

· **Vapor pressure at 20 °C (68 °F):** 0.08 hPa

· **Density at 20 °C (68 °F):** 1.114 g/cm³ (9.296 lbs/gal)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· Solubility in / Miscibility with

Water at 20 °C (68 °F): 1 g/l

· **Partition coefficient (n-octanol/water):** Not determined.

· Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

Organic solvents: 0.0 %

· **Other information** No further relevant information available.

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10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
 - Reacts with strong acids and oxidizing agents.
 - Reacts with aluminium at raised temperatures.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
 - Aldehyde
 - Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

107-21-1 ethanediol

Oral	LD50	5840 mg/kg (rat)
Dermal	LD50	9530 mg/kg (rabbit)

- **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
 - When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
 - The substance is not subject to classification.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
 - Water hazard class 1 (Assessment by list): slightly hazardous for water
 - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|-------------------------------------------------------------------------------------|----------------------------------------------|
| · UN-Number | UN2810 |
| · DOT, IMDG, IATA | |
| · UN proper shipping name | Toxic, liquids, organic, n.o.s. (ethanediol) |
| · DOT | TOXIC LIQUID, ORGANIC, N.O.S. (ethanediol) |
| · IMDG, IATA | |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 6.1 Toxic substances. |
| · Label | 6.1 |
| | |
| · IMDG, IATA | |
|  | |
| · Class | 6.1 Toxic substances. |
| · Label | 6.1 |
| · Packing group | III |
| · DOT, IMDG, IATA | |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | |
| · Danger code (Kemler): | 60 |
| · EMS Number: | F-A,S-A |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

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· UN "Model Regulation": UN2810, Toxic, liquids, organic, n.o.s. (ethanediol), 6.1, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

- Section 355 (extremely hazardous substances):

Substance is not listed.

- Section 313 (Specific toxic chemical listings):

Substance is listed.

- TSCA (Toxic Substances Control Act):

Substance is listed.

- Proposition 65

- Chemicals known to cause cancer:

Substance is not listed.

- Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

- Chemicals known to cause reproductive toxicity for males.

Substance is not listed.

- Chemicals known to cause developmental toxicity:

Substance is not listed.

- Carcinogenic categories

- EPA (Environmental Protection Agency)

Substance is not listed.

- TLV (Threshold Limit Value established by ACGIH)

107-21-1 ethanediol

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- NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

- OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

- GHS label elements

- Hazard-determining components of labeling:

ethanediol

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS: Environment protection department.

- Date of preparation / last revision 5/16/2014

- Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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*IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**ACGIH: American Conference of Governmental Industrial Hygienists**EINECS: European Inventory of Existing Commercial Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent*

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