

Safety Data Sheet

acc. to OSHA HCS





Printing date 07/31/2019

Reviewed on 07/30/2019

1 Identification

- **Product identifier**
 - **Trade name:** Polycool EG-25 060340
 - **Recommended use** Heat transfer fluid
 - **Restrictions on use** For industrial use only
- **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
Kitpackers, LLC
N109 W13300 Ellsworth Drive
Germantown, WI 53022
1-877-259-1669
www.kitpackers.com
 - **Emergency Telephone Number:** North America - Chemtrec: 1-800-424-9300 (24 hours)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Acute Tox. 4 H302 Harmful if swallowed.
STOT SE 2 H371 May cause damage to organs.
STOT RE 2 H373 May cause damage to the central nervous system, the kidneys and the liver through prolonged or repeated exposure.
Route of exposure: Oral.
- **Label elements**
 - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
 - **Hazard pictograms**


 GHS07 GHS08
 - **Signal word** Warning
 - **Hazard-determining components of labeling:**
ethanediol
 - **Hazard statements**
H302 Harmful if swallowed.
H371 May cause damage to organs.
H373 May cause damage to the central nervous system, the kidneys and the liver through prolonged or repeated exposure. Route of exposure: Oral.
 - **Precautionary statements**
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
If swallowed: Call a poison center/doctor if you feel unwell.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
- **Classification system:**
 - **NFPA System**
 - **NFPA ratings (scale 0 - 4)**

 Health = 2
Fire = 1
Reactivity = 0
 NFPA special hazards (water reactivity and oxidizing property): None
 - **HMIS System**
 - **HMIS-ratings (scale 0 - 4)**

 Health = 2
Fire = 1
Reactivity = 0
- **Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Dangerous components:**

CAS: 107-21-1 EINECS: 203-473-3 Index number: 603-027-00-1 RTECS: KW 2975000	ethanediol	STOT RE 2, H373 Acute Tox. 4, H302	>89%
	Liquid dye - CAS number withheld as trade secret.		<1%

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Corrosion inhibitors and pH buffers - CAS number withheld as trade secret.

1-10%

Additional information:

If the chemical name/CAS number is proprietary and or weight percentage is listed as a range, the specific chemical identity and or percentage of composition has been withheld as a trade secret.

4 First-aid measures

Description of first aid measures

- **After inhalation:** Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing.
- **After skin contact:**
Gently wash skin with soap and water.
If skin rash or irritation occurs, seek medical advice.
Remove all contaminated clothing and wash before reuse.
- **After eye contact:**
Rinse opened eye for several minutes under running water.
Remove contact lenses if present and easy to do so; continue rinsing.
If symptoms develop seek medical attention.
- **After swallowing:**
If victim is unconscious; never give anything by mouth.
Do NOT induce vomiting.
If victim is conscious, rinse out mouth with water.
Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel un well.
- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed**
Swallowing a small amount of this material will result in a serious health hazard.
 - **Indication of any immediate medical attention and special treatment needed**
Check section 11 Toxicological Information for further relevant information.

5 Fire-fighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:**
Use fire fighting measures that suit the environment.
Alcohol resistant foam
dry chemical
Carbon dioxide
Dry sand
Water spray
 - **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
Will not burn unless preheated.
During heating or in case of fire poisonous gases are produced.
Carbon dioxide (CO₂) and Carbon monoxide (CO)
- **Advice for firefighters**
 - **Protective equipment:**
If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard (29 CFR 1910.156).
As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.
- **Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
For large spills: provide diking or containment to minimize spreading. If possible pump and store material in appropriate container.
For small spills: Ventilate and wash area. Collect spills and absorbant material in appropriate container.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
Keep away from incompatible material(s).
Avoid any release into the environment.
Do not breathe dust/fumes/mist/vapor/spray.
Avoid contact with eyes, skin and clothing.
Keep away from heat, sparks, flames and ignition sources.
Observe all the personal protection requirements in Section 8.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
Keep stored in accordance with local, regional, national, and international regulations.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

107-21-1 ethanediol

TLV	Short-term value: 10** mg/m ³ , 50* ppm Long-term value: 25* ppm *vapor fraction:**inh. fraction, aerosol only
WEEL	I (2)

· **Additional Occupational Exposure Limit Values for possible hazards during processing:** None.

- **Exposure controls**
If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.
- **Personal protective equipment:**
 - **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
 - **Personal Protective Equipment (PPE)**
 - **Breathing equipment:**
Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.
Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.
 - **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**



Chemical resistant gloves

- **Eye protection:**



Safety Glasses with side shields

- **Body protection:** Appropriate chemical resistant clothing.
- **Limitation and supervision of exposure into the environment**
The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
 - **General Information**
 - **Appearance:**
 - **Form:** Liquid
 - **Color:** clear to yellow
 - **Odor:** Characteristic
 - **Odor threshold:** Not determined.
 - **pH-value:** Not determined.
Not determined.
 - **Change in condition**
 - **Melting point/Melting range:** -13 °C (8.6 °F)
 - **Boiling point/Boiling range:** 197 °C (386.6 °F)
 - **Flash point:** 111 °C (231.8 °F)
 - **Flammability (solid, gaseous):** No data available.
 - **Ignition temperature:** Not determined.
 - **Decomposition temperature:** Not determined.
 - **Auto igniting:** 398 C

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· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
· Lower:	3 Vol %
· Upper:	15 Vol %
· Vapor pressure at 20 °C (68 °F):	0.07 hPa (0.1 mm Hg)
· Vapor Density:	2.1 at 20 C
· Density:	
· Relative density at 20 °C (68 °F)	1.1
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water:	Soluble.
· Miscible in or with:	Soluble in ethanol. Soluble in acetone. Soluble in acetic acid. Soluble in glycerol. Soluble in pyridine. Ethanol: Complete Acetone: Complete
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· Dynamic:	0.021 Pas
· Kinematic:	18.86 mm ² /s
· VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal

10 Stability and reactivity

- **Reactivity** No further relevant information available.
 - **Hazardous Reactivity and Chemical Stability** Stable under normal conditions of use, storage and temperatures.
 - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
In contact with incompatible materials.
No dangerous reactions known.
- **Conditions to avoid**
Keep out of sunlight and exposure to extreme temperatures.
Keep away from heat, sparks, flame and any other ignition sources.
- **Incompatible materials:**
Strong acids
Strong bases
- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Refer to section 5.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
 - **LD/LC50 values that are relevant for classification:** ATE US Oral 531.915 mg/kg body weight.
 - **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** No irritating effect.
 - **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:** Harmful if swallowed.
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)
None of the ingredients is listed.
· NTP (National Toxicology Program)
None of the ingredients is listed.
· OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

12 Ecological information

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
 - **Bioaccumulative potential**
ethylene glycol (107-21-1)
BCF fish 1 - 10 (BCF; 72h)
BCF other aquatic organisms 1 - 0.21 - 0.6 (BCF)
BCF other aquatic organisms 2 - 190 (BCF; 24h)
Low Pow - -1.34 (experimental value)
Bioaccumulative potential - low potential for bioaccumulation (BCF <500)
 - **Mobility in soil** Surface tension: 0.048 N/m (20 C).

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- **Additional ecological information:** The product is non-rapid degradable, and low or not highly bioaccumulative.
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
 - **PBT:** None of the ingredients is listed.
 - **vPvB:** None of the ingredients is listed.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:** Dispose of according to your local waste regulations.
- **Uncleaned packagings:**
 - **Recommendation:** Dispose of according to your local waste regulations.

14 Transport information

· UN-Number · DOT, IMDG, IATA	UN3082
· UN proper shipping name · DOT · IMDG, IATA	Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ethylene glycol)
· Transport hazard class(es) · DOT, IMDG	 · Class · Label
· IATA	 · Class · Label
· Packing group · DOT, IMDG, IATA	III
· Environmental hazards:	Not applicable.
· Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category	Warning: Miscellaneous dangerous substances and articles 90 F-A, S-F A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information: · DOT · Quantity limitations	On passenger aircraft/rail: No limit On cargo aircraft only: No limit
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ethylene glycol), 9, III

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
 - **SARA Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

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· SARA Section 313 (Specific toxic chemical listings):	
107-21-1 ethanediol	>89%
· Section 311/312 (Hazardous Chemical Inventory reporting)	
· SARA Section 311/312 (Hazardous Chemical Inventory Reporting)	
None of the ingredients is listed.	
· Hazard Abbreviations for SARA 311/312	
A - Acute Health Hazard	
C - Chronic Health Hazard	
F - Fire Hazard	
R - Reactive Hazard	
S - Sudden Release of Pressure Hazard	
· TSCA 8 (b) Inventory:	
107-21-1 ethanediol	ACTIVE
· Hazardous Air Pollutants	
107-21-1 ethanediol	
· Proposition 65	
· Chemicals known to cause cancer:	
None of the ingredients is listed.	
· Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	
· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
· Chemicals known to cause developmental toxicity:	
107-21-1 ethanediol	
· New Jersey Right-to-Know List:	
107-21-1 ethanediol	
· New Jersey Special Hazardous Substance List:	
None of the ingredients is listed.	
· Pennsylvania Right-to-Know List:	
107-21-1 ethanediol	
· Pennsylvania Special Hazardous Substance List:	
107-21-1 ethanediol	E
· Carcinogenic categories	
· EPA (Environmental Protection Agency)	
None of the ingredients is listed.	
· TLV (Threshold Limit Value established by ACGIH)	
107-21-1 ethanediol	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)	
None of the ingredients is listed.	
· International Regulation Lists	
· REACH - Substances of Very High Concern (SVHC) List:	
None of the ingredients is listed.	
· Restriction of Hazardous Substances Directive (RoHS) list:	
None of the ingredients is listed.	
· 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.

- **Date of preparation / last revision** 07/31/2019 / 3
- *** Data compared to the previous version altered.**