

# SAFETY DATA SHEET

## PROPYLENE GLYCOL - INDUSTRIAL

### Section 1. Identification

**GHS product identifier** : PROPYLENE GLYCOL - INDUSTRIAL  
**Product code** : 00033939  
**Chemical name** : Propylene glycol  
**Other means of identification** : Propylene glycol  
**Product type** : Liquid.  
**Material uses** : Solvent.  
**Supplier's details** : Huntsman International LLC  
P.O. Box 4980  
The Woodlands, TX 77387  
  
Technical Information: (281) 719-7780  
  
**e-mail address of person responsible for this SDS** : MSDS@huntsman.com  
  
**Emergency telephone number (24h/7day)** : Chemtrec: (800) 424-9300 or (703) 527-3887

### Section 2. Hazards identification

**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

**Classification of the substance or mixture** : Not classified.

**GHS label elements**

**Signal word** : No signal word.

**Hazard statements** : No known significant effects or critical hazards.

**Precautionary statements** : Avoid ingestion, inhalation, skin and eye contact. Handle in accordance with good industrial hygiene practice and any legal requirements.

**Other hazards which do not result in classification** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Substance

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

- Flash point** : Closed cup: 109°C (228.2°F) [DIN 51758 EN 22719 (Pensky-Martens Closed Cup)]
- Flammable limits** : Lower: 2.6%  
Upper: 12.5%
- Extinguishing media**
- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Remark** : Not explosive

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods and materials for containment and cleaning up** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 18 to 32°C (64.4 to 89.6°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

- Appropriate engineering controls** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: Goggles.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Section 8. Exposure controls/personal protection

- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection., Respiratory protection, filter A
- Thermal hazards** : Not available.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Clear, colorless.
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : 7 [Conc. (% w/w): 2%]
- Melting point/Freezing point** : -60°C (-76°F)
- Boiling/condensation point** : 188°C (370.4°F)
- Flash point** : Closed cup: 109°C (228.2°F) [DIN 51758 EN 22719 (Pensky-Martens Closed Cup)]
- Evaporation rate** : 0.01 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 2.6%  
Upper: 12.5%
- Vapor pressure** : 0.019 kPa (0.1425 mm Hg) [room temperature]
- Vapor density** : 2.6 [Air = 1]
- Relative density** : 1.04
- Solubility in water** : Easily soluble
- Partition coefficient: n-octanol/water** : -0.92
- Auto-ignition temperature** : 371°C (699.8°F)
- Decomposition temperature** : Not available.
- Ignition Temperature (Deg C) : SIT > 450 \*ASTM-D1929B** : 420 °C
- Explosive properties** : Not explosive
- Oxidizing properties** : None.
- Density** : 1.04 g/cm<sup>3</sup> [20°C (68°F)]
- Evaporation rate (butyl acetate = 1)** : 0.01 (butyl acetate = 1)
- Viscosity** : Dynamic (room temperature): 46 mPa·s (46 cP)  
Kinematic (room temperature): <0.2 cm<sup>2</sup>/s (<20 cSt) [DIN 51562]
- VOC** : 28% by ASTM D 2369 (110°C, 60 minutes)

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : No specific data.

**Incompatible materials** : No specific data.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name | Test   | Endpoint                 | Species       | Result                              |
|-------------------------|--------|--------------------------|---------------|-------------------------------------|
| Propylene glycol        | -<br>- | LD50 Dermal<br>LD50 Oral | Rabbit<br>Rat | 21000 mg/kg<br>22000 to 31000 mg/kg |

#### Irritation/Corrosion

Not available.

#### Sensitization

| Product/ingredient name | Test | Route of exposure | Species    | Result          |
|-------------------------|------|-------------------|------------|-----------------|
| Propylene glycol        | -    | skin              | Guinea pig | Not sensitizing |

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

| Product/ingredient name | Test | Species | Result/Result type |
|-------------------------|------|---------|--------------------|
| Propylene glycol        | -    | Rat     | Negative - Oral    |

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

## Section 11. Toxicological information

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

### Potential chronic health effects

- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

**Other information** : Not available.

## Section 12. Ecological information

### Toxicity

| Product/ingredient name | Test | Endpoint     | Exposure | Species  | Result      |
|-------------------------|------|--------------|----------|----------|-------------|
| Propylene glycol        | -    | Acute EC50   | 72 hours | Algae    | 19000 mg/l  |
|                         | -    | Acute EC50   | 72 hours | Algae    | >100 mg/l   |
|                         | -    | Acute EC50   | 48 hours | Daphnia  | 18340 mg/l  |
|                         | -    | Acute EC50   | 48 hours | Daphnia  | 34400 mg/l  |
|                         | -    | Acute LC50   | 96 hours | Fish     | 40.613 mg/l |
|                         | -    | Acute LC50   | 96 hours | Fish     | 23800 mg/l  |
|                         | -    | Acute LC50   | 96 hours | Fish     | 51400 mg/l  |
|                         | -    | Acute LC50   | 24 hours | Fish     | >5000 mg/l  |
|                         | -    | Acute LC50   | 96 hours | Fish     | >100 mg/l   |
|                         | -    | Chronic NOEC | 18 hours | Bacteria | 20000 mg/l  |

### Persistence and degradability

| Product/ingredient name | Test | Period  | Result |
|-------------------------|------|---------|--------|
| Propylene glycol        | -    | 28 days | >60 %  |

**Conclusion/Summary** : Readily biodegradable  
 Propylene glycol Readily biodegradable

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Propylene glycol        | -                 | -          | Readily          |

### Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF  | Potential |
|-------------------------|--------------------|------|-----------|
| Propylene glycol        | -0.92              | 0.09 | low       |

### Mobility in soil

Not available.

**Other adverse effects** : No known significant effects or critical hazards.

### Other ecological information

**BOD5** : 860 mg/g  
**COD** : 1585 mg/g  
**TOC** : 47 %

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14. Transport information

### Proper shipping name

**DOT** : Not regulated.

**TDG** : Not regulated.

**IMDG** : Not regulated.

**IATA** : Not regulated.

| Regulatory information     | UN number      | Classes | PG* | Label | Additional information |
|----------------------------|----------------|---------|-----|-------|------------------------|
| <b>DOT Classification</b>  | Not regulated. | -       | -   |       | -                      |
| <b>TDG Classification</b>  | Not regulated. | -       | -   |       | -                      |
| <b>IMDG Classification</b> | Not regulated. | -       | -   |       | -                      |
| <b>IATA Classification</b> | Not regulated. | -       | -   |       | -                      |

PG\* : Packing group

## Section 15. Regulatory information

### Safety, health and environmental regulations specific for the product

#### United States Regulations

**TSCA 8(b) inventory** : This material is listed or exempted.

**TSCA 5(a)2 final significant new use rule (SNUR)** : No ingredients listed.

**TSCA 5(e) substance consent order** : No ingredients listed.

**TSCA 12(b) export notification** : No ingredients listed.

**SARA 311/312** : Not classified.

**Clean Air Act - Ozone Depleting Substances (ODS)** : This product does not contain nor is it manufactured with ozone depleting substances.

**SARA 313** : No ingredients listed.

## Section 15. Regulatory information

**CERCLA Hazardous substances** : No ingredients listed.

### State regulations

**PENNSYLVANIA - RTK** : Propylene glycol

**California Prop 65** : This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

### Canadian regulations

**CEPA DSL** : This material is listed or exempted.

**WHMIS Classes** : Not controlled under WHMIS (Canada).

**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.**

### Brazil Regulations

**Classification system used** : Norma ABNT-NBR 14725-2:2012

### International lists

**Australia inventory (AICS)**: This material is listed or exempted.  
**China inventory (IECSC)**: This material is listed or exempted.  
**Japan inventory**: This material is listed or exempted.  
**Korea inventory**: This material is listed or exempted.  
**Malaysia Inventory (EHS Register)**: Not determined.  
**New Zealand Inventory of Chemicals (NZIoC)**: This material is listed or exempted.  
**Philippines inventory (PICCS)**: This material is listed or exempted.  
**Taiwan inventory (CSNN)**: Not determined.

## Section 16. Other information

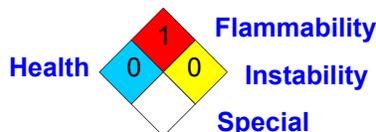
**Hazardous Material Information System (U.S.A.)** :

|                     |   |
|---------------------|---|
| Health              | 0 |
| Flammability        | 1 |
| Physical hazards    | 0 |
| Personal protection | X |

**The customer is responsible for determining the PPE code for this material.**

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

**National Fire Protection Association (U.S.A.)** :



## Section 16. Other information

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|                               |              |
|-------------------------------|--------------|
| <b>Further information</b>    | :            |
| <b>Date of printing</b>       | : 1/20/2015. |
| <b>Date of issue</b>          | : 1/20/2015. |
| <b>Date of previous issue</b> | : 8/5/2008   |
| <b>Version</b>                | : 2          |

✔ Indicates information that has changed from previously issued version.

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