1. Identification

1.1. Product identifier

Product Identity: Propylene Glycol - Biobased
Alternate Names: PG

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use: See Technical Data Sheet.
Application Method: See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name: Orison Marketing, LLC
4801 South Danville Drive
Abilene, TX 79602

Emergency

Emergency CHEMTREC (USA): (800) 424-9300
Customer Service: Orison Marketing, LLC
US: 800-460-2403

2. Hazard(s) identification

2.1. Classification of the substance or mixture


2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.
No applicable GHS categories.

[Prevention]:
No GHS prevention statements

[Response]:
No GHS response statements

[Storage]:
No GHS storage statements

[Disposal]:
No GHS disposal statements
3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene Glycol - Biobased</td>
<td>&gt;99</td>
<td></td>
</tr>
<tr>
<td>CAS Number: 57-55-6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition may have been withheld as a trade secret.

4. First aid measures

4.1. Description of first aid measures

General
In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation
If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

Eyes
In case of contact, flush eyes with plenty of water. Get medical attention if eye irritation develops or persists.

Skin
Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

Ingestion
Non-toxic. No hazards which require special first aid measures. Do not induce vomiting unless directed by medical personnel.

5. Fire-fighting measures

5.1. Extinguishing media
Carbon Dioxide, Foam, Dry Chemical and Water.

5.2. Flammable Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>212 F (100 C)</td>
</tr>
<tr>
<td>Ignition Temperature</td>
<td>AIT (degrees C): 371.1 (700F)</td>
</tr>
<tr>
<td>Fire Limits</td>
<td>Lower: 2.6  Upper: 12.5</td>
</tr>
</tbody>
</table>

Fire and Explosion Hazard: Exposure to decomposition products may be a hazard to health.

5.3. Advice for fire-fighters
Fire fighters wear positive-pressure, self contained breathing apparatus (SCBA) and protective fire fighting clothing.
6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Review Fire Fighting Measures and Handling (Personnel) sections before proceeding with clean-up. Use appropriate Personal Protective Equipment (PPE) during clean-up.

6.2. Environmental precautions
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up
Spill Clean-up: Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13)

Accidental Release Measures: Do not flush into surface water or sanitary sewer system.

7. Handling and storage

7.1. Precautions for safe handling
No special precautions are needed in handling this material. Handle containers carefully to prevent damage and spillage.

7.2. Conditions for safe storage, including any incompatibilities
Store in a dry place away from high heat, ignition sources and strong oxidizers. Keep containers closed when not in use to prevent contamination.

7.3. Specific end use(s)
No data available.

8. Exposure controls and personal protection

8.1. Control parameters
Exposure

8.2. Exposure controls
Respiratory Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air
supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Eyes
Safety glasses, chemical type goggles, or face shield recommended.

Skin
Wear chemical resistant gloves. Protective clothing should be worn and soiled clothing should be laundered. Wash exposed skin with soap and water.

Engineering Controls
Ensure adequate ventilation, especially in confined areas. If exhaust ventilation is not available or inadequate, use MSHA or NIOSH approved respirator as appropriate.

Other Work Practices
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight/Mild</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not Measured</td>
</tr>
<tr>
<td>pH</td>
<td></td>
</tr>
<tr>
<td>Freezing point</td>
<td>-92 °F (-68.9 °C)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>370 °F (188 °C)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>212 °F (100 °C)</td>
</tr>
<tr>
<td>Evaporation rate (Ether = 1)</td>
<td>&lt; 1 (Ether = 1)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Lower Explosive Limit: 2.6</td>
</tr>
<tr>
<td></td>
<td>Upper Explosive Limit: 12.5</td>
</tr>
<tr>
<td>Vapor pressure (Pa)</td>
<td>&lt;1 mmHg at 77°F (25 °C)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.036 (Water = 1)</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Complete</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Kow)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
<td>56 mPa.s at 68 °F (20 °C)</td>
</tr>
</tbody>
</table>

### 10. Stability and reactivity

10.1. Reactivity
Hazardous Polymerization will not occur.
10.2. Chemical stability
Stable under normal circumstances.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
Heat, flames and sparks. Strong oxidizing agents.

10.5. Incompatible materials
Strong oxidizing agents.

10.6. Hazardous decomposition products
No decomposition if stored normally.

11. Toxicological information

TOXICITY – Non Toxic
Inhalation 4 h LC50 – > 5.0 mg/l, rat
Dermal LD50 – > 4,200 mg/kg, rat
Oral LD50 - Non Toxic. LD50 15,800 mg/kg of body weight, rat.
Skin Irritation – slight, rabbit; Negative in human patch test
Skin Sensitization – Patch test on human volunteers did not demonstrate sensitization properties.
Eye Irritation - slight irritation, rabbit
Repeated dose toxicity
   Inhalation, rat – No toxicologically significant effect were found
   Oral, rat - No toxicologically significant effect were found

12. Ecological information

12.1. Toxicity
Oral: LD50 > 5.00 g/kg, rat, practically non-toxic
Inhalation: Believed to be practically non-toxic
Dermal: LD50> 2.0 g/kg, rabbit, practically non-toxic

Irritation Index, Estimation of irritation (Species)
Skin: Draize, believed to be b < .50/8.0 (rabbit), no appreciable effect
Eyes: Draize, believed to be < 15.00/110 (rabbit) no appreciable effect
Sensitization: Not determined.

Aquatic Toxicity
Fish : Low toxicity; LC50 > 100 mg/l
Aquatic Invertebrates: Low toxicity; LC50 > 100 mg/l
Algae Low toxicity; LC50 > 100 mg/l
12.2. Persistence and degradability
The product is readily biodegradable

12.3. Bioaccumulative potential
Bioaccumulation is unlikely.

12.4. Mobility
Releases to the environment will tend to partition to water and soil, with little potential for evaporation.

12.5. Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects
No data available.

13. Disposal considerations

13.1. Waste treatment methods
Treatment, storage, transportation and disposal must be in accordance with applicable federal, state/provincial and local regulations.

14. Transport information

<table>
<thead>
<tr>
<th>14.1. UN number</th>
<th>DOT (Domestic Surface Transportation)</th>
<th>IMO / IMDG (Ocean Transportation)</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.2. UN proper shipping name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Regulated</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.3. Transport hazard class(es)</th>
<th>DOT Hazard Class: Not Applicable</th>
<th>IMDG: Not Applicable</th>
<th>Sub Class: Not Applicable</th>
<th>Air Class: Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Applicable</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.4. Packing group</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td></td>
</tr>
</tbody>
</table>

14.5. Environmental hazards
IMDG: Marine Pollutant: No

14.6. Special precautions for user
Not regulated in transportation by DOT/IMO/IATA.
Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

<table>
<thead>
<tr>
<th>Regulatory Overview</th>
<th>The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.</th>
</tr>
</thead>
</table>

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Toxic Substance Control Act (TSCA): All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification: Not Regulated

US EPA Tier II Hazards:
- Fire: No
- Sudden Release of Pressure: No
- Reactive: No
- Immediate (Acute): No
- Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):
- Propylene Glycol

Pennsylvania RTK Substances (>1%):
- Propylene Glycol

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and is not valid for such material used in combination with any other materials or in any process, unless specified in the text.

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