1. Identification

1.1. Product identifier
Product Identity  Propylene Glycol - Biobased
Alternate Names  Propylene Glycol – Biobased, PG

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use  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
24 hour Emergency Telephone No.  (325) 692-1135 or US: 800-460-2403

2. Hazard(s) identification

2.1. Classification of the substance or mixture
No applicable GHS categories.

2.2. Label elements
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

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol</td>
<td>75 - 100</td>
<td>Not Classified</td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: 0000057-55-6</td>
<td></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 has been withheld as a trade secret.

[1] Substance with a health or environmental hazard.

*The full texts of the phrases are shown in Section 16.

Section 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**
Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

**Eyes**
Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

**Skin**
Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

**Ingestion**
If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

**Overview**
Treat symptomatically. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Section 5. Fire-fighting measures

5.1. Extinguishing media
Dry chemical, foam, carbon dioxide, water fog

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition: High temperatures and fires may produce such toxic substances as carbon monoxide and carbon dioxide.

5.3. Advice for fire-fighters
As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.
Avoid breathing decomposition products. Fire fighters wear protective clothing and NIOSH approved respirator.

ERG Guide No. ---

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Remove sources of ignition, do not turn lights or unprotected electrical equipment on or off. In case of a major spill or spillage in a confined space evacuate the area and check that solvent vapor levels are below the Lower Explosive Limit before re-entering.

6.2. Environmental precautions
Do not allow spills to enter drains or waterways.
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
Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8. Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

Section 7. Handling and storage

7.1. Precautions for safe handling
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
Incompatible materials: Strong oxidizing agents.

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

Section 8. Exposure controls / personal protection
8.1. Control parameters

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000057-55-6</td>
<td>1,2-Propylene glycol</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>TWA(Aerosol): 10 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Respiratory: If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes: Protective safety glasses recommended

Skin: Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Protective gloves recommended.

Engineering Controls: Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

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.

Section 9. Physical and chemical properties

- **Appearance**: Clear Liquid
- **Odor**: Slight/Mild
- **Odor threshold**: Not determined
- **pH**: Not Measured
- **Melting point / freezing point**: Freezing Point: -92 F (-68.9 C)
- **Initial boiling point and boiling range**: 370 F (188 C)
- **Flash Point**: 212 F (100 C)
- **Evaporation rate (Ether = 1)**: < 1 (Ether = 1)
- **Flammability (solid, gas)**: Not Applicable
- **Upper/lower flammability or explosive limits**: Lower Explosive Limit: 2.6
  
  Upper Explosive Limit: 12.5
- **Vapor pressure (Pa)**: <1 mmHg at 77F (25 C)
- **Vapor Density**: Not Measured
- **Relative Density**: 1.036 (Water = 1)
- **Solubility in Water**: Complete
- **Partition coefficient n-octanol/water (Log Kow)**: Not Measured
- **Auto-ignition temperature**: Not Measured
- **Decomposition temperature**: Not Measured
- **Viscosity (cSt)**: 56 mPa.s at 68 F (20 C)
No other relevant information.

**Section 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**
High temperatures and fires may produce such toxic substances as carbon monoxide and carbon dioxide.

**Section 11. Toxicological information**

**Acute toxicity**
Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LC50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LC50, mg/L/4hr</th>
<th>Inhalation Gas LC50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol - (57-55-6)</td>
<td>22,000.00, Rat -</td>
<td>&gt; 2,000.00, Rabbit -</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000057-55-6</td>
<td>1,2-Propylene glycol</td>
<td>OSHA</td>
<td>Regulated Carcinogen: No</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol - (57-55-6)</td>
<td>40,613.00, Salmo gairdneri</td>
<td>Not Available</td>
<td>24,200.00 (72 hr), Raphidocelis subcapitata</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.
Section 13. Disposal considerations

13.1. Waste treatment methods
Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT (Domestic Surface Transportation)</th>
<th>IMO / IMDG (Ocean Transportation)</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>DOT Hazard Class: Not Applicable</td>
<td>IMDG: Not Applicable</td>
</tr>
<tr>
<td></td>
<td>Sub Class: Not Applicable</td>
<td>Air Class: Not Applicable</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>IMDG Marine Pollutant: No;</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Section 15. Regulatory information

Regulatory Overview
The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

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

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.

Proposition 65 Label Warning:
This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
Section 16. Other information

SDS Revision Date 02/25/2020

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 full text of the phrases appearing in section 3 is:

Not Applicable

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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