1. Identification

Product Name: EVO-100™ USP-NF/FCC Propylene Glycol (Excipient/Food Use Only)

Use of the Substance / Preparation:
Excipient.

Product Code: 049000

Contact Manufacturer:
Archer Daniels Midland Company
4666 Faries Parkway
Decatur, IL 62526, USA
Telephone Number: (+1) 217-424-5200

2. Hazard(s) identification

Emergency Overview
Health injuries are not known or expected under normal use.

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Physical State</th>
<th>Odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear Colorless</td>
<td>Viscous liquid</td>
<td>Odorless</td>
</tr>
</tbody>
</table>

This product is NOT classified as hazardous according to the criteria contained in the Hazard Communication Standard 29 CFR 1910.1200 (known as HCS 2012) or the Hazardous Products Regulations SOR/2015-17 (known as WHMIS 2015).

3. Composition/information on ingredients

Chemical Family: Glycols
Molecular Formula: C₃H₈O₂

Non-hazardous Components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>North American Substance Hazard Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol</td>
<td>57-55-6</td>
<td>99.5</td>
<td>None known</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>0.2</td>
<td>None known</td>
</tr>
</tbody>
</table>

4. First-aid measures

**Description of first aid measures**

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids.
Skin Contact Wash off with warm water and soap.
Inhalation Move to fresh air.
Ingestion Clean mouth with water and afterwards drink plenty of water.
General Advice When symptoms persist or in all cases of doubt seek medical advice.

**Most important symptoms and affects, both acute and delayed**

Eyes Contact with eyes may cause irritation.
5. Fire-fighting measures

**Flammable Properties**
Material may pose fire hazard because it is dispersed (or spread) by water.

**Extinguishing media**

- **Suitable Extinguishing Media**: Dry powder, Alcohol-resistant foam, Carbon dioxide (CO₂). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- **Unsuitable Extinguishing Media**: Do not use a solid water stream as it may scatter and spread fire.

**Special hazards arising from the substance or mixture**

- **Hazardous Combustion Products**: Thermal decomposition can lead to release of irritating gases and vapors, Carbon monoxide (CO), Carbon dioxide (CO₂).
- **Specific Hazards Arising from Chemical Vapors**: Vapors are heavier than air and may spread along floors. The pressure in sealed containers can increase under the influence of heat. Fire or intense heat may cause violent rupture of packages.

**Sensitivity to mechanical impact**
No information available.

**Sensitivity to static discharge**
No information available.

**Advice for fire-fighters**

- **Protective Equipment and Precautions for Firefighters**: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

- **Health**: 0
- **Flammability**: 1
- **Stability and Reactivity**: 0
- **Physical hazard**: None known

6. Accidental release measures

**Personal Precautions, Protective Equipment, and Emergency Procedures**
Ensure adequate ventilation. Avoid high pressure washing or generation of aerosols. Use personal protective equipment. Material can create slippery conditions.

**Environmental Precautions**
Prevent further leakage or spillage if safe to do so.

**Methods and Materials for Containment and Cleaning Up**
Clean-up methods - small spillage. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly. Clean-up methods - large spillage. Dam up. Take up mechanically and collect in suitable container for disposal.

7. Handling and storage

**Handling**
Ensure adequate ventilation.

**Storage**
Keep at temperature not exceeding 40°C / 104°F. Keep containers dry and tightly closed to avoid moisture absorption and contamination. To maintain product quality, do not store in heat or direct sunlight.
8. Exposure controls/Personal protection

**Exposure Limits**
This product is not known to contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Biological Limit Values**
No biological limit values have been listed for the component(s) of this product.

**Appropriate Engineering Controls**
Ensure adequate ventilation, especially in confined areas.

**General Hygiene Considerations**
Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke.

**Personal Protective Equipment**
Safety glasses with side-shields. If splashes are likely to occur, wear goggles.

**Skin and Body Protection**
Long sleeved clothing. Protective gloves if desired. Special protective equipment is generally not required.

**Respiratory Protection**
In case of mist, spray or aerosol exposure wear suitable personal respiratory protection.

9. Physical and chemical properties

**Appearance**
Clear Colorless

**Physical State**
Viscous liquid

**Odor**
Odorless

**Odor Threshold**
No information available

**pH**
Approx. 7

**Flash Point**
99 °C / 210 °F (Cleveland Open cup)

**Autoignition Temperature**
371 °C / 700 °F

**Boiling point**
Approx. 188 °C / 370 °F (760 torr)

**Melting/Freezing Point**
Approx. -60 °C / -76 °F

**Decomposition temperature**
No information available

**Oxidizing Properties**
No information available

**Flammability Limits in Air**
Upper: 12.6 Lower: 2.6 (25°C, 760 mmHg)

**Molecular Weight**
76.09 g/mol

**Water Solubility**
Miscible

**Solubility(ies)**
Soluble in essential oils. Miscible with Acetone and chloroform. Immiscible with fixed oils.

**Evaporation Rate**
< 0.01 [Butyl acetate = 1.0]

**Vapor Pressure**
0.08 mmHg at 20 °C

**Vapor Density**
2.6 (Air = 1.0)

**Specific Gravity / Relative Density**
1.04 20°C (H₂O = 1)

**Partition Coefficient**
-1.07

(n-octanol/water)

10. Stability and reactivity

**Stability**
Stable under normal conditions.

**Possibility of Hazardous Reactions**
Hazardous polymerization does not occur.

**Conditions to Avoid**
Extremes of temperature and direct sunlight.

**Incompatible Materials**
No materials to be especially mentioned.

**Hazardous Decomposition Products**
Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO₂).
11. Toxicological information

Information on toxicological effects

**Acute toxicity**
Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight %</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol</td>
<td>99.5</td>
<td>20000 mg/kg Rat</td>
<td>20800 mg/kg Rabbit</td>
<td>&gt;317042mg/m³ air (Rabbit)</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation**
Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation**
Based on available data, the classification criteria are not met.

**Germ cell mutagenicity**
Based on available data, the classification criteria are not met.

**Carcinogenicity**
Based on available data, the classification criteria are not met.

**Reproductive toxicity**
Based on available data, the classification criteria are not met.

**STOT - single exposure**
Based on available data, the classification criteria are not met.

**STOT - repeated exposure**
Based on available data, the classification criteria are not met.

**Aspiration hazard**
Based on available data, the classification criteria are not met.

**Potential health effects**

- **Eyes**
  Contact with eyes may cause irritation.

- **Skin**
  May cause slight skin irritation. Repeated exposure may cause skin dryness or cracking. Contact with product at elevated temperatures can result in thermal burns.

- **Inhalation**
  Avoid breathing vapors or mists. Inhalation of aerosol may cause irritation to respiratory tract.

- **Ingestion**
  Health injuries are not known or expected under normal use. May be harmful if swallowed. (dependent on amounts).

12. Ecological information

**Ecotoxicity**

Component Information:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Fresh Water Algae</th>
<th>Acute Fish Toxicity</th>
<th>Daphnia (Water flea)</th>
<th>Effects on micro-organisms</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol</td>
<td>EC50: 96h 19000 mg/L (Pseudokirchneriella subcapitata)</td>
<td>LC50: 96h 40613mg/L (Oncorhynchus mykiss) static</td>
<td>NOEC &gt;20000mg/l Pseudomonas putida</td>
<td>NOEC &gt; 20000mg/l Pseudomonas putida</td>
<td>Saltwater algae Skeletonema costatum EC50: 96h 19100mg/L</td>
</tr>
</tbody>
</table>

**Chemical Name** | log Kow | BCF
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol</td>
<td>-1.07</td>
<td></td>
</tr>
</tbody>
</table>

**Persistece/Degradability**
Readily biodegradable

**Mobility**
Miscible with water.

**PBT and vPvB assessment**
No information available.

**Other adverse effects**
Nothing specific known.

13. Disposal considerations

Whenever possible, as rules and regulations allow, please recycle or manage materials to minimize waste.

**Waste Disposal Methods**
Dispose of in compliance with the laws and regulations pertaining to this product in your jurisdiction.
14. Transport information

Domestic transport regulations (USA)
DOT  Not regulated

Domestic transport regulations (Canada)
TDG  Not regulated

Domestic transport regulations (Mexico)
MEX  Not regulated

International transport regulations
ICAO  Not regulated
IATA  Not regulated
IMDG/IMO  Not regulated

15. Regulatory information

International Inventories
The components of this product are reported in the following inventories:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>ICL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes 200-338-0</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ENCS</th>
<th>ISHL</th>
<th>CHINA</th>
<th>PICCS</th>
<th>KECL</th>
<th>Taiwan</th>
<th>Turkey</th>
<th>NZIoC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol</td>
<td>Yes (2)-234</td>
<td>Yes</td>
<td>Yes KE-29267</td>
<td>Yes</td>
<td>Yes 200-338-0</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

USA

Federal Regulations
Ozone Depleting Substances:
No Class I or Class II material is known to be used in the manufacture of, or contained in, this product.

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not known to contain any chemicals which are subject to the reporting requirements of the Act or regulations contained in 40 CFR 372.

CERCLA/SARA 103-302
Sections 103-302 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not known to contain any chemicals which are subject to the reporting requirements of the Act or regulations contained in 40 CFR 103-302.

SARA 311/312 Hazardous Categorization
Refer to the OSHA hazard classification(s) provided in section 2 of this SDS.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 63)
This product is not known to contain any HAPs.

State Regulations
California Proposition 65
This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels which would require a warning under the statute.

State Right-to-Know
Component Information.
### Canada

**Canada**

**Chemical Name**

<table>
<thead>
<tr>
<th>1,2-Propylene glycol</th>
</tr>
</thead>
</table>

**Weight %**

| 99.5 |

**Massachusetts**

| No |

**Minnesota**

| Yes |

**New Jersey**

| Yes |

**Pennsylvania**

| Yes |

**Canadian National Pollutant Release Inventory**

**Component Information**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight %</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol</td>
<td>99.5</td>
<td>Part 4 Substance as set out in Section 65 of the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act, 1999</td>
</tr>
</tbody>
</table>

### 16. Other information

- **Prepared By:** ADM Evolution Chemicals
- **Original Preparation Date:** 01-Mar-2010
- **Revision Date:** 19-Feb-2018
- **Revision Number:** 2
- **Reason for revision:** New product name. This version replaces all previous versions.

**Abbreviations and acronyms**

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen
- A4 - Not classifiable as a human carcinogen
- ACGIH TLV - American Conference of Governmental Industrial Hygienists Threshold Limit Values
- CAS - Chemical Abstract Service
- Ceiling - Ceiling Limit Value: Concentrations that should never be exceeded at any given time (instantaneous)
- CHINA - Chinese Inventory of Existing Chemical Substances (China)
- CLP - Classification, Labelling and Packaging, Regulation (EC)1272/2008
- CSA - Chemical Safety Assessment
- CSR - Chemical Safety Report
- Delisted - Substances Delisted from Report on Carcinogens
- DNEL - Derived No Effect Level
- DOT - U.S. Department of Transportation
- DSL - Domestic Substance List (Canada)
- EC - European Commission
The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of sheet