



9790.

Material Safety Data Sheet

NFPA	WHMIS	Personal Protective Equipment	Transport Symbol

Preparation Date: 01-Mar-2010

Revision Date: 31-May-2012

Revision Number: 3

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:

Propylene Glycol USP, Excipient Grade/EP EVO-100™

Product Code:

049000

Use of the Substance / Preparation:

Excipient.

Contact Manufacturer:

Archer Daniels Midland Company

4666 Faries Parkway

Decatur, IL 62526, USA

Telephone Number: (+1) 217-424-5200

Emergency response telephone number:

Chemtrec 1-800-424-9300 (CCN 1635)

2. HAZARDS IDENTIFICATION

Emergency Overview

May cause eye or skin irritation with susceptible persons. Dependent on amounts, may be harmful if swallowed.

Appearance

Clear Colorless

Physical State

Viscous liquid

Odor

Odorless

Potential Health Effects
Principle Routes of Exposure

Eye contact. Skin contact. Inhalation. Ingestion.

Acute Effects
Eyes

May cause slight 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

May be harmful if swallowed. (dependent on amounts)

Chronic Effects

Repeated, excessive exposures may cause central nervous system effects.

Aggravated Medical Conditions

Central nervous system.

Potential Environmental Effects

See Section 12 for additional ecological information.

Toxicological Information

See Section 11 for additional toxicological information.

Revision Date: 31-May-2012

049000 - Propylene Glycol USP, Excipient Grade/EP EVO-100™

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family Glycols
Molecular Formula C₃H₈O₂

The following component(s) in this product are considered hazardous under applicable OSHA (USA), WHMIS (Canada), and/or NOM-002-SCT-2003 (Mexico) regulations

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
1,2-Propylene glycol	57-55-6	99.5	yes (Present on Canadian Hazardous Products Act Ingredient Disclosure List)

Non-hazardous Components

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Water	7732-18-5	0.2	-

4. FIRST AID MEASURES

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms persist, call a physician.

Skin Contact Wash off immediately with plenty of water. Remove and wash contaminated clothing before reuse.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Clean mouth with water and afterwards drink plenty of water.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

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.

Hazardous Combustion Products Thermal decomposition can lead to release of irritating gases and vapours, Carbon monoxide (CO), Carbon dioxide (CO₂).

Explosion Data

Sensitivity to mechanical impact No information available.

Sensitivity to static discharge No information available.

Specific Hazards Arising from the Chemical 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.

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 -



Revision Date: 31-May-2012

049000 - Propylene Glycol USP, Excipient Grade/EP EVO-100™

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	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 for Clean-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 in a dry place. Keep in properly labelled containers. Keep containers dry and tightly closed to avoid moisture absorption and contamination. To maintain product quality, do not store in heat or direct sunlight. Keep at temperature not exceeding 40°C / 104°F.

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.

Engineering Measures	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	
Eye/face Protection.	Safety glasses with side-shields. If splashes are likely to occur, wear goggles.
Skin and Body Protection	Protective gloves.
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)
Specific Gravity	1.04 20°C (H ₂ O)
Molecular Weight	76.09 g/mol
Solubility(ies)	Soluble in: essential oils. Miscible with: Acetone and chloroform. Immiscible with fixed oils.
Water Solubility	Miscible
Evaporation Rate	< 0.01 [Butyl acetate = 1.0]
Vapor Pressure	0.08 mmHg at 20 °C
Vapor Density	2.6 (Air = 1.0)
Partition Coefficient (n-octanol/water)	No information available

Revision Date: 31-May-2012

049000 - Propylene Glycol USP, Excipient Grade/EP EVO-100™

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.
Conditions to Avoid Extremes of temperature and direct sunlight.
Incompatible Materials Strong acids. Strong bases. Strong oxidizing agents.
Hazardous Decomposition Products Carbon monoxide (CO). Carbon dioxide (CO₂). Aldehydes. Ethers. Organic acids.
Possibility of Hazardous Reactions Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION**Acute Toxicity**

LD50 Oral: approximately 20000 mg/kg; (rat)
LD50 Dermal: approximately 20800 mg/kg; (rabbit)
LC50 Inhalation: No information available

Toxicology data for the components**Chronic Effects****Carcinogenicity**

There are no known carcinogenic chemicals in this product.

OSHA: (Occupational Safety & Health Administration)

Not Listed

ACGIH: (American Conference of Governmental Industrial Hygienists)

Not Listed.

NTP: (National Toxicity Program)

Not Listed

Mexico: (Official Mexican Norm NOM-010-STPS-1989)

Not Listed.

IARC: (International Agency for Research on Cancer)

Not Listed

Irritation

Eye, rabbit 500 mg 24H MLD (propylene glycol)

Skin:hmn 500 mg/7D MLD (propylene glycol)

Sensitization

No information available.

Mutagenic Effects

No information available.

Developmental Effects

Animal testing did not show any effects on fetal development

Corrosivity

No information available.

Neurological Effects

No information available.

Reproductive Effects

No information available.

Target Organ Effects

No information available.

12. ECOLOGICAL INFORMATION**Ecotoxicity****Ecotoxicity effects****Component Information:**

Chemical Name	Weight %	Acute Fish Toxicity	Daphnia (Water flea)	Fresh Water Algae	Other
1,2-Propylene glycol	99.5	LC50: 96h 40613mg/L (Oncorhynchus mykiss) static LC50: 96h 51400mg/L (Pimephales promelas) static LC50: 96h 51600mg/L (Oncorhynchus mykiss) static LC50: 96h 710mg/L (Pimephales promelas)	EC50: 48h 1000 mg/L (Daphnia magna) EC50: 24h 10000 mg/L (Daphnia magna)	EC50: 96h 19000 mg/L (Pseudokirchneriella subcapitata)	Saltwater algae Skeletonema costatum DC50: 96h 19100mg/L

Revision Date: 31-May-2012

049000 - Propylene Glycol USP, Excipient Grade/EP EVO-100™

Chemical Name	Weight %	log Kow
1,2-Propylene glycol	99.5	-0.82

Persistence/Degradability Readily biodegradable.
Bioaccumulation/ Accumulation No information available.
Mobility Miscible with water.

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.
Contaminated Packaging Empty containers should be decontaminated and taken for local recycling, recovery or waste disposal.

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:

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	AICS	ENCS ISHL	CHINA	PICCS	KECL	NZLoC
1,2-Propylene glycol	Yes	Yes	No	Yes 200-338-0	No	Yes	Yes (2)-234	Yes	Yes	Yes KE-29267	Yes

Legend

TSCA - Toxic Substances Control Act, Section 8(b) Inventory (USA). DSL - Domestic Substance List (Canada). NDSL - Non Domestic Substances List (Canada). EINECS - European Inventory of Existing Commercial Chemical Substances (EU). ELINCS - European List of Notified Chemical Substances (EU). AICS - Australian Inventory of Chemical Substances (Australia). ENCS - Existing and New Chemical Substances (Japan). ISHL - Industrial Health and Safety Law (Japan). CHINA - Chinese Inventory of Existing Chemical Substances (China). PICCS - Inventory of Chemicals and Chemical Substances (Philippines). KECL - Korean Existing and Evaluated Chemical Substances (Korea). NZLoC - New Zealand Inventory of Chemicals (New Zealand).

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.

SARA 302

Section 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 302.

Revision Date: 31-May-2012

049000 - Propylene Glycol USP, Excipient Grade/EP EVO-100™

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

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**

Chemical Name	Weight %	Massachusetts	Minnesota	New Jersey	Pennsylvania
1,2-Propylene glycol	99.5	No	Yes	Yes 3595	Yes

Canada**WHMIS Product Classification**

Not a WHMIS controlled product.

WHMIS Ingredient Disclosure List IDL**Component Information**

Chemical Name	Weight %	WHMIS IDL	Threshold limits
1,2-Propylene glycol	99.5	Listed	1%

(NPRI) Canadian National Pollutant Release Inventory

No known component is listed on NPRI.

Chemical Name	Weight %	NPRI
1,2-Propylene glycol	99.5	Part 4 Substance

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

Mexico

Mexico - Grade

Slight risk, Grade 1

16. OTHER INFORMATION**Prepared By:** ADM Evolution Chemicals**Preparation Date:** 01-Mar-2010**Revision Date:** 31-May-2012**Revision Number:** 3**Revision Summary:** This data sheet contains changes from the previous version in section(s) 8. This version replaces all previous versions.

The information provided on this (M)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 (M)SDS