



(Material) Safety Data Sheet

Transport Symbol(s)	WHMIS	NFPA	Personal Protective Equipment
Not controlled	Not controlled		

Original Preparation Date: 01-Mar-2010

Revision Date: 24-Mar-2015

Revision Number: 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name:

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

Product Code:

049000

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)

Use of the Substance / Preparation:

Excipient.

2. HAZARDS IDENTIFICATION

Emergency Overview

Health injuries are not known or expected under normal use.

Appearance

Clear Colorless

Physical State

Viscous liquid

Odor

Odorless

This product is NOT classified as hazardous according to 29 CFR 1910, amended to conform to the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (OSHA / GHS); SOR/88-66, the Canadian Controlled Products Regulations (CPR); and/or NOM-002-SCT-2003 (Mexico).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family

Glycols

Molecular Formula

C₃H₈O₂

Non-hazardous Components

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
1,2-Propylene glycol	57-55-6	99.5	(Present on Canadian Hazardous Products Act Ingredient Disclosure List).
Water	7732-18-5	0.2	None known.

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.

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)

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

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 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.

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.

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

Eye/face Protection.

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 (n-octanol/water)

No information available

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.			
Chemical Name	Weight %	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,2-Propylene glycol	99.5	20000 mg/kg Rat	20800 mg/kg Rabbit	>317042mg/m ³ air (Rabbit)
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:.

Chemical Name	Fresh Water Algae	Acute Fish Toxicity	Daphnia (Water flea)	Effects on micro-organisms	Other
1,2-Propylene glycol	EC50: 96h 19000 mg/L (Pseudokirchneriella subcapitata)	LC50: 96h 40613mg/L (Oncorhynchus mykiss) static	EC50: 48h 1000 mg/L (Daphnia magna) EC50: 24h 10000 mg/L (Daphnia magna)	NOEC >20000mg/l Pseudomonas putida	Saltwater algae Skeletonema costatum EC50: 96h 19100mg/L

Chemical Name	log Kow	BCF
1,2-Propylene glycol	-1.07	

Persistence/Degradability

Readily biodegradable.

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	NZIoC
1,2-Propylene glycol	Yes	Yes	No	Yes 200-338-0	No	Yes	Yes (2)-234	Yes	Yes	Yes KE-29267	Yes

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

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 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.

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

Canada**WHMIS Product Classification**

Not a WHMIS controlled product.

WHMIS Ingredient Disclosure List IDL

Component Information

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

(NPRI) Canadian National Pollutant Release Inventory

Component Information

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

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
Original Preparation Date: 01-Mar-2010
Revision Date: 24-Mar-2015
Revision Number: 2
Reason for revision: New SDS format. This version replaces all previous versions.

Abbreviations and acronyms

ACGIH TLV - American Conference of Governmental Industrial Hygienists Threshold Limit Values
AICS - Australian Inventory of Chemical Substances (Australia)
A3 - Animal Carcinogen
CAS - Chemical Abstract Service
CHINA - Chinese Inventory of Existing Chemical Substances (China)
DOT - U.S. Department of Transportation
DSL - Domestic Substance List (Canada)
EC50 - Half maximal effective concentration
EINECS - European Inventory of Existing Commercial Chemical Substances (EU)
ELINCS - European List of Notified Chemical Substances (EU)
ENCS - Existing and New Chemical Substances (Japan) / ISHL - Industrial Health and Safety Law (Japan)
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
Group 1 - Carcinogenic to Humans
IATA - International Air Transport Association Dangerous Goods Regulations
IARC - International Agency for Research on Cancer
ICAO - International Civil Aviation Organisation
ICL - In Commerce List (Canada)
IMDG - International Maritime Dangerous Goods Code
IMO - International Maritime Organization
KECL - Korean Existing and Evaluated Chemical Substances (Korea)
LC50 - Lethal concentration that produces fatalities in 50% of a given test population
LD50 - Median lethal dose of a given test population
MEX - NOM-002-SCT/2003 List of Hazardous Substances and Materials Most Commonly Transported
MEXICO - Mexico Occupational Exposure Limits
NDSL - Non Domestic Substances List (Canada)
NFPA - National Fire Protection Association
NIOSH - National Institute of Occupational Safety and Health
NOAEL - No Observed Adverse Effect Level
NTP - National Toxicology Program
NZIoC - New Zealand Inventory of Chemicals (New Zealand)
OECD - Organisation for Economic Co-operation and Development
OSHA - Occupational Safety & Health Administration
OSHA PEL - Occupational Safety and Health Administration Permissible Exposure Limits
PICCS - Inventory of Chemicals and Chemical Substances (Philippines)
PNEC - Predicted No-Effect Concentration
Present - Carcinogen or potential carcinogen to be identified under OSHA's Hazard Communication Standard
STOT - Specific Target Organ Toxicity
TDG - Transportation of Dangerous Goods (Transport Canada)
TSCA - Toxic Substances Control Act, Section 8(b) Inventory (USA)
TWA - Time Weighted Average: Average concentration that should not be exceeded during a work day (usually 8-hours)
vPvB - Very Persistent and Very Bioaccumulative
WHMIS - Workplace Hazardous Materials Information System

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.

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