Safety Data Sheet

Issue Date: 01-Dec-2014 **Revision Date:** 12-Dec-2014 **Version** 1

1. IDENTIFICATION

Product Identifier
Product Name DEG

Other means of identification
SDS # CG-024

Synonyms: Diethylene glycol

Recommended use of the chemical and restrictions on use
Recommended Use Glycol.

Details of the supplier of the safety data sheet
Supplier Address
Chem Group
2406 Lynch Road
Evansville, IN 47711
www.chemgroupus.com

Emergency Telephone Number
Company Phone Number Non ER questions 800-489-2306 / 812-464-4446
Emergency Telephone (24 hr) Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Appearance Colorless liquid **Physical State** Liquid **Odor** Low

Classification

Acute toxicity - Oral	Category 4
Specific target organ toxicity (repeated exposure)	Category 2

Signal Word
Warning

Hazard Statements
Harmful if swallowed
May cause damage to organs through prolonged or repeated exposure

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response
Get medical advice/attention if you feel unwell
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Diethylene glycol	111-46-6	< / = 100

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/ attention.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. Drink 1 or 2 glasses of water. Immediate medical attention is required.

Most important symptoms and effects

Symptoms May cause skin and eye irritation. Ingestion may cause nausea, vomiting, dizziness, and headache.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media Water or foam may cause frothing.

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous Combustion Products Carbon oxides,

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

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. Water spray may be used to keep fire-exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Ensure adequate ventilation, especially in confined areas.
Environmental Precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Collect spillage. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	Dike far ahead of liquid spill for later disposal. Absorb with inert material or sweep up, and then place in suitable container for chemical waste.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling	Wash face, hands, and any exposed skin thoroughly after handling. Use personal protection recommended in Section 8. Use only outdoors or in a well-ventilated area. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up.
Incompatible Materials	Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines	No exposure limits noted for ingredient(s) The following information is given as general guidance

Appropriate engineering controls

Engineering Controls Maintain eye wash fountain and quick-drench facilities in work area.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety goggles.

Skin and Body Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory Protection In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment. Use respirators and components tested and approved under appropriate governmentstandards such as NIOSH.

General Hygiene Considerations Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid		
Appearance	Colorless liquid	**Odor**	Low
Color	Colorless	**Odor Threshold**	Not determined

Property	**Values**	**Remarks • Method**
pH	7.0	
Melting Point/Freezing Point	-11.1 °C / 12 °F	
Boiling Point/Boiling Range	245 °C / 473 °F	
Flash Point	143.3 °C / 290 °F	COC
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-not applicable	
Upper Flammability Limits	10.8%	
Lower Flammability Limit	1.6%	
Vapor Pressure	Not determined	
Vapor Density	3.6	(Air=1)
Specific Gravity	1.12	(1=Water)
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	14 cSt	@ 40°C (104°F)
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
VOC Content	9% by ASTM D 2639	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid
Ignition sources.

Incompatible Materials
Strong oxidizing agents.

Hazardous Decomposition Products
Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact May cause mild eye irritation.

Skin Contact May cause mild skin irritation.

Inhalation Avoid breathing vapors or mists.

Ingestion Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Diethylene glycol 111-46-6	= 12565 mg/kg (Rat)	= 11890 mg/kg (Rabbit)	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Target organ effects Kidneys, Liver.

Numerical measures of toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Diethylene glycol 111-46-6		75200: 96 h Pimephales promelas mg/L LC50 flow-through	EC50 = 29228 mg/L 15 min	84000: 48 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Diethylene glycol 111-46-6	-1.98

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Diethylene glycol	Present	X		Present		Present	X	Present	X	X

Legend:

TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*

DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances*

IECSC *- China Inventory of Existing Chemical Substances*

KECL *- Korean Existing and Evaluated Chemical Substances*

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

AICS *- Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Diethylene glycol 111-46-6			X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	2	1	0	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	2*	1	0	Not determined

Chronic Hazard Star Legend ** = Chronic Health Hazard*

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Disclaimer

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 may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet