



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

ORG Chem Group, LLC
2406 Lynch Road
Evansville, IN 47711
www.chem-group.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

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|-----------------|---|
| 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

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|---------------------------|------------------------|
| 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 | Odor | Low |
| Appearance | Colorless liquid | Odor Threshold | Not determined |
| Color | Colorless | | |
| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> | |
| 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.

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| 11. TOXICOLOGICAL INFORMATION |
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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 |

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| 16. OTHER INFORMATION |
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|-----------------------------------|---------------------------|---------------------|-------------------------|----------------------------|
| <u>NFPA</u> | Health Hazards | Flammability | Instability | Special Hazards |
| | 2 | 1 | 0 | Not determined |
| <u>HMIS</u> | 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