

Glycol Ether EP

SECTION 1. IDENTIFICATION

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| Product Identifier | Glycol Ether EP |
| Other Means of Identification | 2-Propoxy-ethanol, Ethylene glycol monopropyl ether |
| Product Code(s) | ET5350, GL5250 |
| Product Family | Organic Solvent |
| Recommended Use | Industrial. |
| Restrictions on Use | None known. |
| Supplier Identifier | Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995 |
| Emergency Phone No. | Infotrac, 1-800-535-5053, 24 Hours |
| SDS No. | 1491 |

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Flammable liquid - Category 3; Acute toxicity (Oral) - Category 4; Eye irritation - Category 2A; Specific target organ toxicity (single exposure) - Category 3

Label Elements



Signal Word:
Danger

Hazard Statement(s):

Flammable liquid and vapour.
Toxic in contact with skin.
Causes serious eye irritation.

Precautionary Statement(s):

Prevention:
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.

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Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

Call a POISON CENTRE or doctor if you feel unwell.

IF ON SKIN: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Storage:

Store in a well-ventilated place. Keep cool.

Keep container tightly closed.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

| Chemical Name | CAS No. | % | Other Identifiers | Other Names |
|------------------------------|-----------|------|---|-------------|
| Ethylene glycol propyl ether | 2807-30-9 | > 99 | 2-Propoxy-ethanol, Ethylene glycol monopropyl ether | |

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. If breathing has stopped, trained personnel should begin rescue breathing. Immediately call a Poison Centre or doctor.

Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Immediately call a Poison Centre or doctor.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Contact physician immediately.

Ingestion

Rinse mouth with water. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a Poison Centre or doctor.

First-aid Comments

Provide general supportive measures (comfort, warmth, rest). Treat symptomatically. Symptoms may be delayed.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: can irritate the nose and throat. If in eyes: causes moderate to severe irritation. If inhaled: can harm the nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion.

Immediate Medical Attention and Special Treatment

Special Instructions

General advice, consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific Hazards Arising from the Product

Flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air. Can be ignited by static discharge.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full

protective gear. Move containers from fire area if it can be done without risk. Otherwise, use water in flooding quantities as a spray or fog to keep fire-exposed containers cool and absorb heat.

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Remove or isolate incompatible materials as well as other hazardous materials.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Contain spill with earth, sand, or absorbent material which does not react with spilled material. Place used absorbent into suitable, covered, labelled containers for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Avoid breathing in this product. Only use where there is adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent accidental contact with incompatible chemicals. Keep containers tightly closed when not in use or empty. Wash hands thoroughly after handling this material.

Conditions for Safe Storage

Store in an area that is: cool, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Restrict access to authorized personnel only. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Store in a closed container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Chemical Name | ACGIH TLV® | | OSHA PEL | | AIHA WEEL | |
|------------------------------|-----------------|------|-----------------|---------|-----------|-----|
| | TWA | STEL | TWA | Ceiling | 8-hr TWA | TWA |
| Ethylene glycol propyl ether | Not established | | Not established | | | |

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Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: Viton®, Barrier® (PE/PA/PE), Silver Shield®.

The following materials should NOT be used: natural rubber.

Respiratory Protection

For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

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| Appearance | Clear colourless liquid. |
| Odour | Ethereal |
| Odour Threshold | Not available |
| pH | Not available |
| Melting Point/Freezing Point | -90 °C (-130 °F) (melting); -90 °C (-130 °F) (freezing) |
| Initial Boiling Point/Range | 150 - 152 °C (302 - 306 °F) |
| Flash Point | 47 - 48 °C (117 - 118 °F) (closed cup) |
| Evaporation Rate | 0.22 (n-butyl acetate = 1) |
| Flammability (solid, gas) | Not applicable |
| Upper/Lower Flammability or Explosive Limit | 16% (upper); 1.3% (lower) |
| Vapour Pressure | 0.39 kPa (2.93 mm Hg) at 25 °C |
| Vapour Density (air = 1) | 3.59 |
| Relative Density (water = 1) | 0.909 at 25 °C |
| Solubility | Soluble in water; Highly soluble in alcohols (e.g. ethanol). |
| Partition Coefficient, n-Octanol/Water (Log Kow) | 0.05 |
| Auto-ignition Temperature | 235 - 256 °C (455 - 493 °F) |
| Decomposition Temperature | Not available |
| Viscosity | 2.65 mm ² /s (kinematic); Not available (dynamic) |
| Other Information | |
| Physical State | Liquid |
| Molecular Weight | 104.15 |

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to Avoid

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Open flames, sparks, static discharge, heat and other ignition sources. Incompatible materials.

Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

| Chemical Name | LC50 | LD50 (oral) | LD50 (dermal) |
|------------------------------|------------------------------------|----------------------|--------------------|
| Ethylene glycol propyl ether | 2025 ppm (mouse) (4-hour exposure) | 500-1000 mg/kg (rat) | 875 mg/kg (rabbit) |

Skin Corrosion/Irritation

Animal tests show mild irritation.

Serious Eye Damage/Irritation

Animal tests show serious eye irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause nose and throat irritation. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest. Depression of the central nervous system.

Ingestion

May cause irritation of the mouth, throat and stomach.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

Not known to be a skin sensitizer. No information was located for respiratory sensitization.

Carcinogenicity

| Chemical Name | IARC | ACGIH® | NTP | OSHA |
|------------------------------|------------|----------------|------------|------------|
| Ethylene glycol propyl ether | Not Listed | Not designated | Not Listed | Not Listed |

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

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SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

| Regulation | UN No. | Proper Shipping Name | Transport Hazard Class(es) | Packing Group |
|--------------|--------|--|----------------------------|---------------|
| US DOT | UN1993 | Flammable liquids, n.o.s. (Ethylene Glycol Monopropyl Ether) | 3 | III |
| Canadian TDG | UN1993 | Flammable liquids, n.o.s. (Ethylene Glycol Monopropyl Ether) | 3 | III |

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Alphachem Limited

Phone No. (905)-821-2995

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References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).
GESTIS Substance Database (included by CCOHS).

Disclaimer This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.

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