

MATERIAL SAFETY DATA SHEET

GLYKOOL EGV™

SECTION 1: PRODUCT IDENTIFICATION

Material Identification

PRODUCT NAME: **GLYKOOL EGV**
CHEMICAL FAMILY: MIXTURE; Inhibited Ethylene Glycol

Company Identification

MANUFACTURER: Loikits Industrial Services, Inc.
5250 West Coplay Road
Whitehall, PA 18052

TELEPHONE NUMBERS
Product Information: 610.262.3681
Emergency Phone: CHEMTREC 800.424.9300

Date of Preparation

March 20, 2007

Revision Date

SECTION 2: COMPOSITION /INFORMATION ON INGREDIENTS

<u>MATERIAL</u>	<u>CAS Number</u>	<u>Wt.%</u>	<u>OSHA PEL (TWA)</u>	<u>ACGIH TLV (TWA)</u>	<u>EU Classification</u>
Ethylene Glycol	107-21-1	97%	-----	-----	-----
Inhibitor GlyKool PEI	Proprietary	1.1 – 5.0	-----	-----	-----

NE: Not Established

See Section 16 for Definitions of Terms Used.

NOTE (1): All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-1993 format.

NOTE (2): Information on this product is being claimed as proprietary. All Pertinent hazard information has been provided, per the Trade Secret requirements of U.S. Federal Occupational Safety and Health Administration Standards (29 CFR 1910.1200) and Canadian WHMIS (CPR 12 and 19). Information on this mixture will be released when the conditions specified in these Standards are met.

SECTION 3: HAZARD IDENTIFICATION

EMERGENCY OVERVIEW**Physical Appearance:**

These products are clear, blue, syrupy liquids with a faint, chemical odor.

Immediate Concerns:

Vapors and mists from these products may be irritating if inhaled. The solutions can be irritating to contaminated skin or eyes. These products may cause reproductive effects, based on animal tests. These products must be substantially preheated before ignition can occur. If involved in a fire, this liquid will release toxic gases (i.e. carbon monoxide and carbon dioxide). These products are not reactive. Emergency responders must wear proper personal protective equipment and have adequate fire protection for the situation to which they are responding.

Inhalation:

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits.

Eyes:

Can cause eye irritation. Symptoms include stinging, tearing, redness and swelling eyes.

Skin:

Cause mild irritation skin irritation. Symptoms may include redness and burning of skin. Although rare, skin contact with ethylene glycol may cause allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects). Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

Ingestion:

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Liver, kidney and brain damage in humans has resulted from swallowing lethal or near-lethal amounts of ethylene glycol.

HAZARDOUS MATERIAL INFORMATION SYSTEM

	<u>HMIS</u>
HEALTH:	1
FLAMMABILITY:	1
REACTIVITY:	0

KEY: 4=Severe 3= Serious 2=Moderate 1=Slight 0=Minimal

SECTION 4: FIRST-AID MEASURES

Skin Exposure:

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Eye Exposure:

If the product enters the eyes, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Contaminated individual must seek immediate medical attention, especially if symptoms persist.

Inhalation:

If mists of the product are inhaled, removed victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician immediately.

Ingestion:

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

SECTION 5: FIRE-FIGHTING MEASURES

Flammable properties

FLASH POINT: (TCC) >93°C (>200°F)

AUTOIGNITION: No Data

FLAMMABLE LIMITS:

Lower (LEL): 3.2

Upper (UEL): 15.3

HAZARDOUS COMBUSTION PRODUCTS:

Can burn in fire forming carbon dioxide (CO₂) and some carbon monoxide.

Extinguishing Media:

Water spray (fog), foam, dry chemical or carbon dioxide.

Fire-Fighting Instructions:

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

NFPA Hazard Ratings**NFPA RATINGS**

Health: 1

Flammability: 1

Reactivity: 0

KEY: 4=Severe 3= Serious 2=Moderate 1=Slight 0=Minimal

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill and leak Response

Eliminate all sources of ignition such as flare, flames (including pilot lights), and electrical sparks. Absorb liquid on vermiculite, floor absorbent or other absorbent material. Persons not wearing proper personal protective equipment should be excluded from area of spill.

Large Spill

Prevent run-off over sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Eliminate all ignition sources.

SECTION 7: HANDLING AND STORAGE

Usual Shipping Containers

Tank cars, tank trucks, drums and totes.

Storage and Handling Practices

Do not store near extreme heat, open flame, or source of ignition. Store in a cool, dry place. Keep container closed when not in use. Open the container with caution. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing.

Electrostatic Accumulation Hazard

When transferring this product, there is a potential for the accumulation of static electricity. Consideration should be given to bonding and grounding of equipment during loading, unloading and transfer of this product.

Storage/Transport Temperature

Ambient

Storage/ Transport Pressure

Ambient

Load/ Unload Temperature

Ambient

SECTION 8: EXPOSURE CONTROLS-PERSONAL PROTECTION

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

Ethylene Glycol (107-21-1)
OSHA VPEL 50.00ppm Ceiling
ACGIH TLV 100.00mg/m3 Ceiling as an aerosol

Inhibitor Package GlyKool PE1
NA

Personal Protective Equipment

RESPIRATORY PROTECTION: If workplace exposure limit(s) of product or any component is exceed (see exposure guidelines), A NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist).

EYE PROTECTION: Wear safety glasses with side shields or chemical goggles.

HAND PROTECTION: Wear chemical resistant gloves.

PERSONAL PROTECTIVE EQUIPMENT LEVEL: D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

RELATIVE VAPOR DENSITY (air = 1):	> 1.0
EVAPORATION RATE (n-BuAc=1):	Slower than Ethyl Ether
SPECIFIC GRAVITY (water = 1):	1.096 – 1.140 @ 68°F
MELTING POINT or RANGE:	Approx. - 81°F (-63°C)
SOLUBILITY IN WATER:	Soluble.
BOILING POINT:	379°F -401°F (192.7°C-205 °C)
VAPOR PRESSURE, mm Hg @ 20 °C:	No data
ODOR:	No data
PHYSICAL STATE:	Liquid
pH:	Not applicable.
COLOR	Clear.

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability

Stable.

Decomposition

May form carbon dioxide and carbon monoxide, various hydrocarbons.

Incompatibility with Other Materials

May react with strong oxidizers.

Hazardous Polymerization

Should not occur.

Conditions to Avoid

Avoid contact with strong acids, strong alkalis, and strong oxidizing agents.

SECTION 11: TOXICOLOGICAL INFORMATION

No data

SECTION 12: ECOLOGICAL INFORMATION

No data

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal

Waste disposal must be in accordance with appropriate Federal, State, and local regulations or those of Canada and its Provinces. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge.

SECTION 14: TRANSPORTATION INFORMATION

Shipping Information

This material is not hazardous as defined by 49 CFR 172.101 by the U.S. Department of Transportation.

Proper Shipping Name:	Not Applicable.
Hazard Class Number and Description:	Not Applicable.
UN Identification Number	Not Applicable.
Packing Group	Not Applicable.
DOT label(s) Required	Not Applicable.

Marine Pollutant

No component of this product is classified as a Marine Pollutant, as listed in Appendix B to 49 CFR 172.101.

SECTION 15: REGULATORY INFORMATION

US Federal Regulations**A: General Product Information**

No Additional information available.

B: Component Analysis

SARA 302 STATUS: Contains no chemicals subject to SARA 302 reporting.

SARA 311/312: Hazard Class- 40 CFR 355 Appendix A

Immediate (x) Delayed (x) Fire () Reactive () Sudden Release of Pressure ()

SARA 313 CHEMICALS: Hazard Class – 40 CFR 372.65

ETHYLENE GLYCOL CAS No. 107-21-1 %=96.8

TSCA INVENTORY STATUS: The components of this product are listed on the TSCA inventory.

CERCLA RQ: 40 CFR 302.4(a)

ETHYLENE GLYCOL

5000LBS (RQ)

OSHA: Non-hazardous as defined by the OSHA Hazard Communication Standard

CALIFORNIA PROPOSITION 65: This product contains the following substance(s) as known to the state of California to cause cancer: 1,4 Dioxane; Ethylene Oxide; Acetaldehyde.

This product contains the following substance (s) known to the state of California to cause reproductive harm: Ethylene Oxide

C: Additional Canadian Regulations

CANADIAN DSL/NDL INVENTORY STATUS: The components of this product are the (DSL) or NDLS Inventory.

CANADIAN WHMIS SYMBOLS: Not Applicable.

SECTION 16: OTHER INFORMATION

Prepared by:

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The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Loikits Industrial Services, Inc. assumes no responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Loikits Industrial Services, Inc. assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.

DEFINITIONS OF TERMS

Key/Legend

LOIKITS INDUSTRIAL SERVICES, INC. GLYKOOL EGV MSDS

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ppm = parts per million; mg/m³ = milligrams per cubic meter of air; mppcf = million of particles per cubic foot of air; f/cc = fibers per cubic centimeter of air; OSHA = Occupational Safety and Health Administration; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; TWA = 8-hour, time-weighted average; STEL = short-term exposure limit; EPA = Environmental Protection Agency; TSCA = Toxic Substances Control Act; DSL = Canada Domestic Substances List; EINECS = European Inventory of Existing Commercial Chemical Substances; ECL = Korea Existing and Evaluated Chemical Substances Inventory; ENCS = Japan Existing and New Chemical Substances Inventory; PICCS = Philippines Inventory of Chemicals Substances; AICS = Australia Inventory of Chemicals Substances; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PMN = Premanufacture Notification; DSL = Domestic Substance List; NFPA = National Fire Protection Association; WHMIS = Workplace Hazardous Materials Identification System; HEPA = High Efficiency Particulate Air; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; SARA = Superfund Amendments and Reauthorization Act; NJTSR = New Jersey Trade Secret Registry; EPCRA = Emergency Planning and Community Right-to-Know Act (SARA, Title III); 302 = Extremely Hazardous Substance; HAP = Clean Air Act Hazardous Air Pollutant; TPQ = Threshold Planning Quantity; RQ = Reportable Quantity; NA = Not Available; NR = Not Regulated