

MATERIAL SAFETY DATA SHEET

HAZARD RATINGS	
Health:	3
Flammability:	2
Reactivity:	1
Personal Protection:	C

NOTICE: Judgment may be based on indirect test and technical literature. The OSHA Hazard Communication Standard only requires MSDS's and special labeling for materials defined as "HAZARDOUS"; see 29 CFR 1910.1200 (c). This document may be about a product which is NOT hazardous but is provided as information for our customers. See references for information.

SECTION I.

PRODUCT IDENTIFICATION

Product Identifier: GIR-4U Plus
Product VOC as Per Rule 102: <100 Grams per Liter
Manufacturer's Name: Kor-Chem, Inc.
5800 Bucknell Drive
Atlanta, GA 30336

Product Identification #(PIF): 01500
Emergency Telephone #: 1-800-255-3924
General Information #: 404-344-9580
Prepared by: Sonya Lockhart
Date Prepared: November 8, 2005
Updated: 01/06/2010

SECTION II.

HAZARDOUS INGREDIENTS

	CAS #	OSHA/PEL	TLV	STEL	max. %
1. Dipropyleneglycol methyl ether	34590-94-8	NE	100 ppm	150 ppm	33
2. Ethylene glycol monobutyl ether	111-76-2	50 ppm	20 ppm	ND	24
3. Propylene Glycol	57-55-6	NE	NE	NE	19
4. Sodium Hydroxide	1310-73-2	2mg/m ³	2mg/m ³	NE	12
5. Monoethanolamine	141-43-5	3 ppm	3 ppm	6 ppm	7

SECTION III.

HEALTH HAZARD INFORMATION

.....**Primary Routes of Entry:** X Skin X Eyes Inhalation Ingestion

◆ *Effects of overexposure:*

- Eye Contact: Corrosive. Can cause transient corneal injury.
- Skin Contact: Corrosive to body tissues. Dermatitis may result from repeated exposure.
- Inhalation: Vapors may cause irritation to nose, throat, and respiratory tract. High vapor concentrations may result in CNS depression.
- Ingestion: Low to moderately toxic. May cause headache, dizziness and gastrointestinal distress, irritation/burning of mouth and throat, and CNS depression.

SECTION IV.

EMERGENCY FIRST AID

- ◆ *Eyes:* Flush well with water for at least 15 minutes. Seek medical attention if irritation persists.
- ◆ *Skin:* Wash with soap and water for 15 minutes. Seek medical attention if irritation persists.
- ◆ *Inhalation:* Move to fresh air.
- ◆ *Ingestion:* Drink lots of water to dilute, **DO NOT INDUCE VOMITING.** Get medical help immediately.

SECTION V.

FIRE & EXPLOSION DATA

Flammability: COMBUSTIBLE
Means of extinction: Water spray, dry chemicals, CO₂.
Autoignition Temperature: ND
Hazardous combustion products: Carbon monoxide and carbon dioxide, oxides of nitrogen and ammonia.
◆ *Special Fire Fighting Procedures:* Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
◆ *Unusual Fire Fighting Hazard:* Vapors can travel to a source of ignition and flash back. Contact with some metals, particularly magnesium, aluminum, and zinc (galvanized), can generate hydrogen rapidly, which is explosive.

Flash Point: 150° F
Upper Flammability Limit (% by volume): ND
Lower Flammability Limit (% by volume): ND

SECTION VI.

REACTIVITY DATA

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Incompatibility with other substances: Strong oxidizing agents, acids, alkalis, lime, ammonia, organic material, metals, chlorates, chlorine and various food sugars.
Conditions to Avoid: All sources of ignition. Reaction with various sugars may form carbon monoxide.
Hazardous decomposition products: Carbon monoxide and carbon dioxide, oxides of nitrogen and ammonia.

SECTION VII. HANDLING & STORAGE

Storage: Keep container closed, when not in use. Keep away from heat, flame, or sunlight. Protect from physical damage.

Handling: Do not premix with other chemicals. Exercise reasonable care and precaution. Keep out of reach of children.

SECTION VIII. EXPOSURE CONTROL/PERSONAL PROTECTION

Personal protective equipment: Use rubber gloves, eye protection and apron.

Gloves (specify): Chemical resistant gloves

Eye (specify): Chemical resistant eye ware

Clothing (specify): Apron

Respirator (specify): NIOSH, if ventilation inadequate

Footwear (specify): Chemical resistant shoes

Other: Eyewash and emergency shower nearby

Always provide adequate ventilation.

SECTION IX. SPECIAL PRECAUTIONS/ OTHER COMMENTS

Carefully read all instructions on label before handling this product. "FOR INDUSTRIAL USE ONLY"

SECTION X. PHYSICAL DATA

Boiling point: >212⁰F

Specific Gravity, (water + 1.0): 1.052

% Volatile/ volume: 88.2%

Solubility: Complete

Description/odor: Clear colorless liquid with butyl odor.

Vapor Density: (Air = 1): ND

pH, Neat: 13-14

Vapor Pressure: ND

Evaporation Rate: slower than butyl acetate

SECTION XI. TOXICOLOGICAL INFORMATION

◆ Effects of acute exposure to product: Corrosive to eyes and skin. Mists and vapors may be irritating to respiratory tract.

◆ Effects of chronic exposure to product: Prolonged skin contact may result in defatting of the skin, which can lead to dermatitis.

High vapor concentrations may result in CNS depression.

SECTION XII. ECOLOGICAL INFORMATION

Sodium hydroxide: Moderately toxic to aquatic organisms: LC50 Daphnia = 100 ppm; LC50 King Salmon = 48 ppm.

SECTION XIII. ACCIDENTAL RELEASE MEASURES/ DISPOSAL INFORMATION

Large spills cannot occur because of packaging. Eliminate all ignition sources. Dam up spills with inert material and neutralize with mild acid such as citric acid. Neutralized material should be soaked onto absorbent and shoveled into waste containers. Dispose of contaminated absorbent material in accordance to local, state and federal regulations. Do not release to open, public waters.

SECTION XIV. TRANSPORT INFORMATION

Hazardous according to Table 49 CFR 172.101: **CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (Sodium Hydroxide), 8, UN3266, II.**

SECTION XV. REGULATORY INFORMATION

SARA TITLE III REPORTING REQUIREMENTS

SECTION 302: Not listed

SECTION 311: Acute and Chronic Health and Fire Hazard

SECTION 312: Acute and Chronic Health and Fire Hazard

SECTION 313: Listed (Ethylene Glycol Monobutyl Ether)

CERCLA: This product has a RQ of 9,434 lb as Sodium hydroxide and 22,321 lb as Ethylene Glycol Monobutyl Ether

RCRA: A waste containing this product may have the RCRA hazardous waste no. D002 (Corrosive) and D001 (Ignitable) (40 CFR 261.22).

SECTION XVI. ADDITIONAL INFORMATION

OSHA List (29 FR 1910.1200) as hazardous chemical.

The information contained herein is based on data available to us and is believed to be correct. We make no warranty, however, expressed or implied regarding the accuracy of these data or the results obtained from the use thereof.

Regulatory Standards: DOT TITLE 49, Code of Federal Regulations 172.101: Parts 100 to 177, Revised 10/1/92.

SUPER FUND AMENDMENTS REAUTHORIZATION ACT OF 1986, TITLE III TOXIC SUBSTANCE CONTROL ACT LIST (TSCA)-INGREDIENTS LISTED. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES NATIONAL TOXICOLOGICAL PROGRAM (NTP) REPORT OF CARCINOGENS INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) MONOGRAPHS, OCCUPATIONAL SAFETY & HEALTH REGULATIONS. CODE OF FED. REGS. FOOD & DRUG, 21 PARTS 170 to 199, Revised 4/1/91, 173.310.