

SAFETY DATA SHEET

HEALTH	1
FIRE	2
REACTIVITY	1
PPE	B

NOTICE: Judgment may be based on indirect test and technical literature. The OSHA Hazard Communication Standard only requires SDS'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 1. IDENTIFICATION

Product Identifier: Bio-1

Product Use: Ink Remover, Stain Remover and Degreaser

UN #: Not Applicable for US DOT

Manufactured by: Kor-Chem Inc.
5800 Bucknell Drive
Atlanta, GA 30336

Product Identification # (PIF): 01459
Emergency Telephone #: 1-800-255-3924
General Information #: 404-344-9580
Prepared by: Sonya Lockhart
Date Prepared: August 28, 2013
Revised: June 4, 2014

SECTION 2. HAZARD(S) IDENTIFICATION

HMIS Ratings: Health 1, Fire 2, Reactivity 1



Signal Word: WARNING

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

OSHA Hazard Class:

- Serious Eye Irritation: Category 2A, Causes serious eye irritation, H319
- Skin Irritation: Category 2, Causes skin irritation, H315
- Flammable Liquids: Category 4, Combustible Liquid, H227

Product VOC: LVP-VOC exempt – Vapor pressure <0.1mmHg @ 20°C (40 CFR 59.203(f))

Potential Health Effects:

- Eye Contact: Severe irritant. Causes transient corneal injury.
- Skin Contact: Causes skin irritation. Prolonged/repeated contact may dry the skin.
- Inhalation: Vapors and mists can irritate the respiratory system and cause symptoms of central nervous system depression.
- Ingestion: May cause central nervous system depression, gastrointestinal tract, liver and kidney damage.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Max. %
Dibasic Esters	Mixture	<50
2-(2-Butoxyethoxy) ethanol	112-34-5	15
Tripropylene glycol monomethyl ether	25498-49-1	15
1,2-Propanediol Carbonate	108-32-7	15
Isobutyl Isobutyrate	97-85-8	15
Solvent Naphtha (Petroleum), heavy aliphatic	64742-96-7	10

SECTION 4. FIRST AID MEASURES

- Eyes: Flush well with water for at least 15 minutes. Remove any contact lenses. Seek medical attention.
- Skin: Wash with soap and water for 15 minutes. If irritation persists, seek medical attention.
- Inhalation: Move to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration and call a physician.
- Ingestion: Rinse mouth with water. Never give anything by mouth to an unconscious person. DO NOT INDUCE VOMITING. Call a physician immediately.

SECTION 5. FIRE-FIGHTING MEASURES

Flammability: Combustible Liquid

Flash Point: 162°F (72°C)

- Extinguishing Media: Foam, dry chemical, carbon dioxide fire extinguishers, water fog or spray. Do not spray water directly on fire. Use water spray to cool containers;
- Specific hazards arising from chemical: Vapors are heavier than air and may travel along the ground to an ignition source. Readily ignited by static discharge.

- Hazardous combustion products: Oxides of carbon and nitrogen, bromide gases, aldehydes.
- Firefighting protective equipment: Wear a self-contained breathing apparatus with a full face piece with appropriate turn-out gear and chemical resistant personal protective equipment.
- Sensitivity to static discharge: This product is combustible and can be ignited even by static discharge.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Eliminate all ignition sources. Ventilate area.

- For Small Spills: Avoid dispersal of material and runoff into soil, waterways, drains and sewers. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Wash walking surfaces with water to reduce slipping hazard. Dispose of contaminated absorbent material in accordance with local, state and federal regulations.
- For Large Spills: Large spills cannot occur due to packaging.

SECTION 7. HANDLING AND STORAGE

- Handling: Wear personal protection equipment. Use with adequate ventilation. Do not handle around sources of ignition. Use proper bonding and grounding during product transfer as described in document NFPA 77. Vapors are heavier than air and may travel along the ground to an ignition source. Never use welding or cutting torch on or near drum (even empty) because product can ignite explosively. Do not premix with other chemicals.
- Storage: Keep away from heat, flame, or sunlight. Keep from freezing. Keep container closed when not in use. Protect from physical damage. Incompatible with strong oxidizing agents, strong bases, strong acids, chlorine.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Ingredient</u>	<u>CAS #</u>	<u>OSHA/PEL</u>	<u>TLV</u>	<u>STEL</u>
Dibasic Esters	Mixture	ND	ND	ND
2-(2-Butoxyethoxy) ethanol	112-34-5	ND	ND	ND
Tripropylene glycol monomethyl ether	25498-49-1	ND	ND	ND
1,2-Propanediol Carbonate	108-32-7	ND	ND	ND
Isobutyl Isobutyrate	97-85-8	ND	100ppm	ND
Solvent Naphtha (Petroleum), heavy aliphatic	64742-96-7	ND	ND	ND

Engineering Controls: Provide adequate ventilation. Observe occupational exposure limits and keep the risk of exposure to a minimum.

Personal protective equipment:

- Eyes: Safety glasses with side shields or splash proof goggles.
- Skin: Chemical resistant gloves.
- Respirator: Use NIOSH approved protection if PEL is exceeded or if vapors are causing irritation.
- Clothing: Normal materials handling clothing.
- Other: Use only in a well ventilated area.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Description: Tinted, clear liquid
- Odor: Mostly soy
- pH, Neat: NA
- Boiling point: >212°F (>413°C)
- Flash Point: 162°F (72°C)
- Evaporation Rate (n-butyl acetate=1): <1
- Upper Flammability Limit (% by volume): Not determined
- Lower Flammability Limit (% by volume): Not determined
- Vapor Pressure: Not determined
- Vapor Density: (Air = 1): >1
- Specific Gravity, (water = 1.0): 1.012 g/ml
- Water Solubility: Negligible
- Auto-ignition Temperature: Not determined
- %Volatile/Volume: 16%

SECTION 10. STABILITY AND REACTIVITY

- Chemical stability: Stable.
- Reactivity: Not reactive under normal conditions.
- Hazardous polymerization: Will not occur.
- Conditions to avoid: Heat, flame and sparks. Do not mix with other chemicals.
- Incompatibility with other substances: Avoid strong oxidizing agents, strong bases, strong acids, chlorine.
- Hazardous combustion products: Oxides of carbon and nitrogen, bromide gases, aldehydes.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

- Oral (LD50 Rat): >5000mg/kg
- Dermal (LD50 Rabbit): >5000mg/kg
- Inhalation (LC50 Rat): Not determined
- Eye and skin irritant

Repeated Dose Toxicity:

- Prolonged/repeated contact may dry the skin.
- Prolonged/repeated inhalation of vapors may cause central nervous system depression.

SECTION 12. ECOLOGICAL INFORMATION

Acute Aquatic Effects:

- 96h LC-50 (fish): >100ppm
- 48h EC-50 (invertebrates): >100ppm
- 96h LC-50 (algae): Not determined
- Persistence and degradability: Not determined
- Bioaccumulation: No data available
- Mobility: This product is soluble in water and may spread in water systems. This product is partially volatile and may spread in the atmosphere.

SECTION 13. DISPOSAL CONSIDERATIONS

- Disposal of Wastes: Do not dump into sewers, on the ground or into any body of water. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations.
- Contaminated Packaging: Since emptied containers retain product residue, follow label warnings even after container is emptied. Do not cut, drill, grind or weld on or near the container.
- RCRA: A waste containing this product may have the RCRA hazardous waste no. D001 (Ignitable) (40 CFR 261.22).

SECTION 14. TRANSPORT INFORMATION

United States D.O.T.:

- Combustible: Not regulated according to 49 CFR 173.150(f)2: This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less for ground transportation. This exception does not apply to transportation by vessel or aircraft.

IATA & IMDG:

- UN/ID No.: UN1993
- Proper Shipping Name: Flammable liquids, n.o.s., (Isobutyl Isobutyrate)
- Hazard Class: 3
- Packing Group: III
- IATA: Quantity limitations, passenger = 60L, cargo =220L
- IMDG: Location A

SECTION 15. REGULATORY INFORMATION

TSCA: All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements under 40 CFR 720.30.

SARA Section 302: The components of this product are either not regulated or regulated, but present in negligible concentrations.

SARA TITLE III Section 311/312:

- Immediate (Acute) Health = Yes
- Delayed (Chronic) Health = Yes
- Fire Hazard = Yes
- Reactive Hazard = No

SARA Title 313: This material does not contain any chemical components with known CAS numbers that exceed the De Minimis reporting levels (40 CFR 372).

United States Right-To-Know: None known.

Proposition 65: This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

CERCLA: This product does not have a reportable quantity.

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

SECTION 16. OTHER INFORMATION

- Carefully read all instructions on label before handling this product.
- Keep out of reach of children.
- "FOR INDUSTRIAL USE ONLY"

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.