



Material Safety Data Sheet

Section 1 — Chemical Product And Company Identification

Manufacturer: LHB Industries Emergency Telephone Number (800) 633-8253 (PERS)
8833 Fleischer Place Information Telephone Number (314) 423-4333
Berkeley, MO 63134 Review Date January 6, 2012

Product ID: Carbon Removing Compound, 5 Gallon
Specification: P-C-111D Type II
LHB Part Number: 0374---000
National Stock Number: 6850-00-965-2332
CAGE Code: 0FTT5

Section 2 — Composition / Information On Ingredients

CAS No.	Ingredient	Wt% (Max)	ACGIH TLV <STEL>	OSHA PEL <STEL>	Vapor Pressure (mm Hg 20°C)
141-43-5	Monoethanolamine	22	3 ppm <6 ppm>	3 ppm <6 ppm>	<1
111-76-2	2-Butoxyethanol	9	25 ppm	25 ppm	0.88 @25°C
111-77-3	2-(2-Methoxyethoxy) ethanol	7	NE	NE	0.25 @25°C
112-34-5	2-(2-Butoxyethoxy) ethanol	4	NE	NE	0.06 @25°C
112-80-1	9-Octadecenoic acid	2	NE	NE	<. 1

Section 3 — Hazards Identification

ROUTES OF EXPOSURE: Exposure may be by INGESTION, INHALATION, SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

ACUTE EFFECTS OF OVEREXPOSURE: Corrosive to skin and eyes. Eye contact may produce tissue damage that may be permanent. Skin contact may produce severe irritation or burns. Harmful quantities may be absorbed through skin in extreme cases. Inhalation may cause upper respiratory irritation or central nervous system depression. Ingestion can cause nausea, vomiting, and gastrointestinal upset.

CHRONIC EFFECTS OF OVEREXPOSURE: Repeated or prolonged skin contact may produce chronic inflammation or dermatitis, characterized by redness, scaling, or itching. Repeated eye exposure may produce chronic inflammation of the eye or corneal damage.

CANCER INFORMATION: None of the hazardous ingredients are listed as carcinogens by IARC, NTP, & OSHA.

Section 4 — First Aid Measures

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

SKIN CONTACT: Immediately flush skin with plenty of water while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash clothing and shoes before reuse.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Consult medical personnel.

INGESTION: If swallowed, do not induce vomiting. If individual is alert, give plenty of water to drink. Get medical attention at once.

Section 5 — Fire Fighting Measures

FLASH POINT: None to Boiling LEL N/A UEL N/A

EXTINGUISHING MEDIA: This is a water-based product and is not expected to burn.

SPECIAL PROTECTIVE EQUIPMENT: Water may be used to keep fire-exposed containers cool. Fire fighters should wear full protective clothing, including self-contained breathing equipment.

NFPA RATING: HEALTH 2, FLAMMABILITY 0, REACTIVITY 0

HMS CLASSIFICATION: HEALTH 2, FLAMMABILITY 0, REACTIVITY 0

Section 6 — Accidental Release Measures

PERSONAL PRECAUTIONARY MEASURES: Avoid inhalation. Use good ventilation. Read entire label before using and follow all label directions.

ENVIRONMENTAL PRECAUTIONARY PROCEDURE FOR CLEANING/ABSORPTION: Wipe, scrape or soak up contents in an inert material. Pick up spill for recovery or disposal and place in a closed container. Dispose of in accordance with applicable Federal, State & Local regulations.

Section 7 — Handling and Storage

HANDLING: Keep out of reach of children. Do not take internally.

STORAGE: Store in a dry cool place.

Section 8 — Exposure Controls/Personal Protection

ENGINEERING CONTROLS: Local Exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits.

RESPIRATORY PROTECTION: If personal exposure cannot be controlled to below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

GLOVES: Wear nitrile gloves or gloves with chemical resistance to the ingredients listed in Section 2.

SKIN PROTECTION: Impervious clothes to protect skin. Wash promptly when skin becomes contaminated.

EYES: Safety glasses with side shields or chemical goggles.

OTHER PERSONAL PROTECTION DATA: Use only with adequate ventilation. Avoid contact with skin and eyes. Wash hands after using.

Section 9 — Physical and Chemical Properties

PHYSICAL STATE: Liquid

COLOR: Light Amber

ODOR: Mild

BOILING POINT: 212°F

pH: 11.0-12.0

SPECIFIC GRAVITY: 0.99

DENSITY: 8.25 lb/gal

VAPOR DENSITY (AIR=1) >1

EVAPORATION RATE: Slower than ether

SOLUBILITY IN WATER: Soluble



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Section 10 — Stability and Reactivity

CHEMICAL STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: None
MATERIAL TO AVOID: Strong acids. Oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, and Carbon Dioxide

Section 11 — Toxicological Information

TOXICOLOGY DATA (listed if available)

2-Butoxyethanol (111-76-2)
Skin: LD50 RATS 220 ppm
Ingestion: LD50 RATS 470 ppm
Inhalation: LC50 RATS 700 ppm in 7 HRS
Mutagenicity: In vitro studies were inconclusive. Animal studies were negative.

Section 12 — Ecological Information

ECOLOGICAL INFORMATION: No data available

Section 13 — Disposal Considerations

DISPOSAL OF WASTE METHOD: Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section 14 — Transport Information

U.S. DOT 49 CFR 172.101 Hazardous Material Table

DOT SHIPPING NAME: Corrosive Liquid, n.o.s. (Ethanolamine)
UN/NA NUMBER: UN1760
HAZARD CLASS: 8
DOT PACKING GROUP: II

IATA: List of Dangerous Goods

PROPER SHIPPING NAME: Corrosive Liquid, n.o.s. (Ethanolamine)
HAZARD CLASS OR DIVISION: UN1760
IDENTIFICATION NUMBER: 8
PACKING GROUP: II

Section 15 — Regulatory Information

U.S. REGULATORY RULES
SARA SECTION 302 None
SARA 313 CHEMICALS 2-Butoxyethanol, 2-(2-Methoxyethoxy) ethanol,
2-(2-Butoxyethoxy) ethanol
CALIFORNIA PROPOSITION 65 None
TSCA CERTIFICATION All chemicals in this product are listed, or are exempt from listing on the TSCA Inventory.
VOC CONTENT 36% by wt.

Section 16 — Other Information

REVISION NUMBER: 05
REVISION DATE: June 16, 2011

ADDITIONAL INFORMATION: This MSDS has been prepared in accordance with FED-STD 313D and meets the requirements of 29 CFR 1910.1200.

IMPORTANT NOTE: This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or any process. Final determination of suitability of any material is the sole responsibility of the user.

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*** END OF MSDS***