

MATERIAL SAFETY DATA SHEET

HEALTH: 2  
FLAMMABILITY: 2  
REACTIVITY: 0

Ashland

Page 001  
Date Prepared: 12/01/04  
Date Printed: 02/15/05  
MSDS No: 301.0000694-013.005

GLYCOL ETHER EB

L 61

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: GLYCOL ETHER EB  
SAP Material No: 3070000 000 00B  
General or Generic ID: GLYCOL ETHER

Company

Ashland  
Ashland Distribution Co. &  
Ashland Specialty Chemical Co.  
P. O. Box 2219  
Columbus, OH 43216  
614-790-3333

Emergency Telephone Number:  
1-800-ASHLAND (1-800-274-5263)  
24 hours everyday

Regulatory Information Number:  
1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	98.0-100.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

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

Skin

May cause mild skin irritation. Symptoms may include redness and burning of skin. Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing this material may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), difficult breathing, blood in the urine, blood abnormalities (breakage of red blood cells), kidney damage, liver damage, coma, and death.

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**Target Organ Effects**

Acute lethal exposure to ethylene glycol monobutyl ether in animal studies has resulted in congestion of organs including kidney, spleen, and lung. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects mild, reversible kidney effects, blood abnormalities.

**Developmental Information**

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

**Cancer Information**

This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration. Ethylene glycol monobutyl ether has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain.

**Other Health Effects**

No data

**Primary Route(s) of Entry**

Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

**4. FIRST AID MEASURES**

**Eyes**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

**Skin**

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

**Swallowing**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the 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.

**Inhalation**

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

**Note to Physicians**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions), liver, kidney.

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5. FIRE FIGHTING MEASURES

Flash Point

144.0 F (62.2 C) TCC

Explosive Limit

(for product) Lower 1.1 Upper 10.6 %

Autoignition Temperature

460.0 F (237.7 C)

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide.

Fire and Explosion Hazards

Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. May form explosive peroxides.

Extinguishing Media

alcohol foam, water fog, carbon dioxide, dry chemical.

Fire Fighting Instructions

Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 2, Flammability - 2, Reactivity - 0

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6. ACCIDENTAL RELEASE MEASURES

Small Spill

Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Absorb onto sand or other absorbent material.

Large Spill

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Per good environmental management practices, prevent run-off to sewers, streams and other bodies of water. Stop spill at the source. Cover sewer grates and dike the spill. Absorb spilled material on to absorbents. Shovel materials into container. Close container tightly and dispose of properly.

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7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five-gallon pails and larger metal containers, including tank cars and tank trucks, should be grounded and/or bonded when material is transferred. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

Storage

Under oxidation conditions, peroxides may be formed. If they become concentrated, these peroxides may present an explosion hazard. Do not store near high heat or open flames. Store in closed containers in a dry, well-ventilated area. Store out of direct sunlight.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection

Wear resistant gloves such as: natural rubber, neoprene, nitrile rubber, To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (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). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

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

Exposure Guidelines

Component

ETHYLENE GLYCOL MONOBUTYL ETHER (111-76-2)  
OSHA PEL 50.000 ppm - TWA (Skin)  
OSHA VPPEL 25.000 ppm - TWA (Skin)  
ACGIH TLV 20.000 ppm - TWA

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9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for product) 336.0 - 343.0 F (168.8 - 172.7 C) @ 760 mmHg

Vapor Pressure

(for product) .660 mmHg @ 68.00 F

Specific Vapor Density

4.100 @ AIR=1

Specific Gravity

.901 - .904 @ 68.00 F

Liquid Density

7.510 lbs/gal @ 68.00 F  
.902 kg/l @ 20.00 C

Percent Volatiles

100.0 %

Volatile Organic Compounds (VOC)

100.000 %  
900.000 g/l  
7.510 lbs/gal

Evaporation Rate

.06 (N-BUTYL ACETATE )

Appearance

CLEAR

State

LIQUID

Physical Form

NEAT

Color

COLORLESS

Odor

MILD ETHER

pH

No data

Viscosity

6.4 cps

Freezing Point

-85.0 F (-65.0 C)

Molecular Weight

118.2

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Solubility in Water  
MISCIBLE

Bulk Density  
1.000 lbs/ft<sup>3</sup>

10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: aldehydes, carbon dioxide and carbon monoxide, ketones, organic acids.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: aluminum, heat, salts of strong bases, strong acids, strong alkalis, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

Destroy by incineration in accordance with applicable regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

NON-REGULATED BY D.O.T.

Container/Mode:

55 GAL DRUM/TRUCK PACKAGE

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NOS Component:  
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RQ (Reportable Quantity) - 49 CFR 172.101  
 Not applicable

Other Transportation Information  
 The Transport Information may vary with the container and mode of shipment.

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status  
 TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4(a)  
 None listed

CERCLA RQ - 40 CFR 302.4(b)  
 Materials without a "listed" RQ may be reportable as an "unlisted hazardous substance". See 40 CFR 302.5 (b).

SARA 302 Components - 40 CFR 355 Appendix A  
 None

Section 311/312 Hazard Class - 40 CFR 370.2  
 Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden Release of Pressure( )

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number	%
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	100.00

OSHA Process Safety Management 29 CFR 1910  
 None listed

EPA Accidental Release Prevention 40 CFR 68  
 None listed

International Regulations

Inventory Status

AICS (AUSTRALIA) The intentional ingredients of this product are listed.  
 DSL (CANADA) The intentional ingredients of this product are listed.  
 ECL (SOUTH KOREA) The intentional ingredients of this product are listed.  
 EINECS (EUROPE) The intentional ingredients of this product are listed.  
 ENCS (JAPAN) The intentional ingredients of this product are listed.  
 IECSC (CHINA) The intentional ingredients of this product are listed.  
 PICCS (PHILIPPINES) The intentional ingredients of this product are listed.  
 SWISS (SWITZERLAND) The intentional ingredients of this product are listed.

State and Local Regulations

California Proposition 65  
 None

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New Jersey RTK Label Information 2-BUTOXY ETHANOL	111-76-2
Pennsylvania RTK Label Information ETHANOL, 2-BUTOXY-	111-76-2

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16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

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