

Revision Date: 01/13/2010

Print Date: 2/8/2010 MSDS Number: R0000694

Version: 1.11

GLYCOL ETHER EB 20129

# 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland Regulatory Information Number 1-800-325-3751 P.O. Box 2219 Telephone 614-790-3333

Columbus, OH 43216 Emergency telephone 1-800-ASHLAND (1-800-274-

5263)

Product name GLYCOL ETHER EB

Product code 20129

Product Use Description Cleaner for removal of vegetable or animal oil from soiled surfaces.

#### 2. HAZARDS IDENTIFICATION

# **Emergency Overview**

Appearance: liquid, colourless

WARNING! COMBUSTIBLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY BE HARMFUL IF INHALED. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION.

#### **Potential Health Effects**

#### **Exposure routes**

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

#### **Eve contact**

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

#### Skin contact

May cause mild skin irritation. Symptoms may include redness and burning of skin.

#### Ingestion

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

#### Inhalation



Revision Date: 01/13/2010

Print Date: 2/8/2010 MSDS Number: R0000694

Version: 1.11

GLYCOL ETHER EB 20129

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 are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

## **Aggravated Medical Condition**

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

## **Symptoms**

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), Difficulty in breathing, Bloody urine, blood abnormalities (breakage of red blood cells), kidney damage, liver damage, coma, and death

## **Target Organs**

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

## Carcinogenicity

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

#### Reproductive hazard

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.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No.	Concentration
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	>=90-<=100%

#### 4. FIRST AID MEASURES



Revision Date: 01/13/2010 Print Date: 2/8/2010

MSDS Number: R0000694

Version: 1.11

GLYCOL ETHER EB 20129

## 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.

#### **Ingestion**

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.

#### Notes to physician

**Hazards:** No information available. **Treatment:** No information available.

# **5. FIRE-FIGHTING MEASURES**

#### Suitable extinguishing media

Dry chemical, Carbon dioxide (CO2), Water spray, Alcohol-resistant foam

#### **Hazardous combustion products**

carbon dioxide and carbon monoxide

#### **Precautions for fire-fighting**

If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. May form explosive peroxides. Forms peroxides of unknown stability. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).



Page: 4 Revision Date: 01/13/2010

Print Date: 2/8/2010

MSDS Number: R0000694 Version: 1.11

GLYCOL ETHER EB 20129

## NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIA

#### 6. ACCIDENTAL RELEASE MEASURES

## **Personal precautions**

For personal protection see section 8. 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. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks).

#### **Environmental precautions**

No data

#### Methods for cleaning up

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. Absorb onto sand or other absorbent material.

#### 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. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77. 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. Under



Page: 5 Revision Date: 01/13/2010

Print Date: 2/8/2010

MSDS Number: R0000694

Version: 1.11

GLYCOL ETHER EB 20129

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.

## **Storage**

Store in a cool, dry, ventilated area. Store in closed containers in a dry, well-ventilated area. Store out of direct sunlight.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Exposure Guidelines**

ETHYLENE GLYCOL M	ONOBUTYL ETHER	111-76-2
ACGIH	time weighted average	20 ppm
NIOSH	Recommended exposure	5 ppm
	limit (REL):	
NIOSH	Recommended exposure	24 mg/m3
	limit (REL):	
OSHA Z1	Permissible exposure	50 ppm
	limit	
OSHA Z1	Permissible exposure	240 mg/m3
	limit	

#### General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

## **Exposure controls**

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

#### Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

#### Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact



Page: 6 Revision Date: 01/13/2010

Print Date: 2/8/2010

MSDS Number: R0000694

Version: 1.11

GLYCOL ETHER EB 20129

your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves such as:

Natural Rubber Neoprene Nitrile rubber

## **Respiratory protection**

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be persmissible under certain circumstancs where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical stateliquidFormliquidColourcolourlessOdourNo data

**Boiling point/boiling range** 171.00 - 172.00 °C **Melting point/range** -94 °F / -70 °C

pH

Flash point
61.70 °C Closed Cup
Evaporation rate
0.08 (n-butyl acetate=1)
Lower explosion limit/Upper explosion limit
1.1 %(V) / 10.6 %(V)

Vapour pressure0.117 kPa @ 25 °CVapour density4.1 (AIR=1)

apour density 4.1 (AIR-1)

**Density**0.9 g/cm3 @ 68.0 °F / 20.0 °C
7.51 lb/gal @ 68.00 °F / 20.00 °C

**Solubility** completely miscible in water

Partition coefficient: n-octanol/water No data log Pow 0.83

**Autoignition temperature** 460 °F / 238 °C

#### 10. STABILITY AND REACTIVITY



Page: 7 Revision Date: 01/13/2010

Print Date: 2/8/2010

MSDS Number: R0000694

Version: 1.11

GLYCOL ETHER EB 20129

**Stability** 

Stable.

Conditions to avoid

heat

**Incompatible products** 

aluminum, salts of strong bases, Strong acids, strong alkalis, Strong oxidizing agents

Hazardous decomposition products

Aldehydes, ketones, Organic acids, carbon dioxide and carbon monoxide

**Hazardous reactions** 

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD 50 Guinea pig: 1,200 mg/kg

Acute inhalation toxicity : LC 50 Guinea pig: > 633 ppm, 1 h

Acute dermal toxicity : LD 50 Guinea pig:

> 2,000 mg/kg

#### 12. ECOLOGICAL INFORMATION

**Biodegradability** 

ETHYLENE GLYCOL MONOBUTYL ETHER : no data available

**Bioaccumulation** 

ETHYLENE GLYCOL MONOBUTYL ETHER : no data available

**Ecotoxicity effects** 

Toxicity to fish

ETHYLENE GLYCOL MONOBUTYL ETHER : no data available



Page: 8 Revision Date: 01/13/2010

Print Date: 2/8/2010

MSDS Number: R0000694

Version: 1.11

GLYCOL ETHER EB 20129

Toxicity to daphnia and other aquatic invertebrates.

ETHYLENE GLYCOL MONOBUTYL ETHER : no data available

Toxicity to algae

ETHYLENE GLYCOL MONOBUTYL ETHER : no data available

Toxicity to bacteria

ETHYLENE GLYCOL MONOBUTYL ETHER : no data available

**Biochemical Oxygen Demand (BOD)** 

ETHYLENE GLYCOL MONOBUTYL ETHER : no data available

**Chemical Oxygen Demand (COD)** 

ETHYLENE GLYCOL MONOBUTYL ETHER : no data available

Additional ecological information

ETHYLENE GLYCOL MONOBUTYL ETHER : no data available

#### 13. DISPOSAL CONSIDERATIONS

#### Waste disposal methods

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's Environmental Services Group at 800-637-7922.

#### 14. TRANSPORT INFORMATION

#### REGULATION

ID	PROPER SHIPPING NAME	*HAZARD	SUBSIDIARY	PACKING	MARINE
NUMBER		CLASS	HAZARDS	GROUP	POLLUTANT
					/ LTD. QTY.

## U.S. DOT - ROAD

Not dangerous goods

#### U.S. DOT - RAIL

Not dangerous goods

#### U.S. DOT - INLAND WATERWAYS

Not dangerous goods

#### TRANSPORT CANADA - ROAD

Not dangerous goods



Revision Date: 01/13/2010

Print Date: 2/8/2010 MSDS Number: R0000694

Version: 1.11

GLYCOL ETHER EB 20129

#### TRANSPORT CANADA - RAIL

Not dangerous goods

#### TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

#### INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

#### INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

#### INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

# MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

#### 15. REGULATORY INFORMATION

## California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects

#### **SARA Hazard Classification**

Fire Hazard Acute Health Hazard

## SARA 313 Component(s)



Revision Date: 01/13/2010

Print Date: 2/8/2010

MSDS Number: R0000694

Version: 1.11

GLYCOL ETHER EB 20129

ETHYLENE GLYCOL MONOBUTYL ETHER

99.00 %

**New Jersey RTK Label Information** 

ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2

Pennsylvania RTK Label Information

ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2

**Notification status** 

Australia. Industrial Chemical (Notification and Assessment) y (positive listing)

Act

Canada. Canadian Environmental Protection Act (CEPA). y (positive listing)

Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)

China. Inventory of Existing Chemical Substances
Japan. Kashin-Hou Law List
US. Toxic Substances Control Act

y (positive listing)
y (positive listing)

US. Toxic Substances Control Act

EU. EINECS

y (positive listing)
y (positive listing)

Korea. Toxic Chemical Control Law (TCCL) List y (positive listing)

Philippines. The Toxic Substances and Hazardous and Nuclear y (positive listing)

Waste Control Act

Japan. Industrial Safety & Health Law (ISHL) List
Japan. Industrial Safety & Health Law (ISHL) List
Japan. Industrial Safety & Health Law (ISHL) List

y (positive listing)
y (positive listing)

New Zealand. Inventory of Chemicals (NZIoC), as published y (positive listing)

by ERMA New Zealand

Switzerland. Consolidated Inventory y (positive listing)

**Reportable quantity - Product** 

US. EPA CERCLA Hazardous Substances (40 CFR 302) 555555 lbs

Reportable quantity-Components

ETHYLENE GLYCOL 107-21-1 5000 lbs

	HMIS	NFPA
Health	2	2
Flammability	2	2
Physical hazards	0	
Instability		0
Specific Hazard		



GLYCOL ETHER EB 20129

Page: 11 Revision Date: 01/13/2010

Print Date: 2/8/2010 MSDS Number: R0000694

Version: 1.11

# **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. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).