

Material Safety Data Sheet

Date Created: 03/07/2009

Date Updated: 02/06/2010

Version: 1.0

Section 1 - Product And Company Information

Product Ethylene Glycol Monoethyl Ether (EE)
Product No D010
Company Dynamic N.A. Inc
Address 23 Captains Walk, Milford, CT 06460, U.S.A.
Phone 1 914 965 2077
Fax 1 914 375 2093

Section 2 - Composition/Information On Ingredients

Synonyms 2-Ethoxyethanol, Ethyl glycol
CAS # 110-80-5
Formula C₄H₁₀O₂

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

OSHA Hazards

Combustible Liquid, Target Organ Effect, Teratogen, Reproductive hazard

Target Organs

Blood, Central nervous system, Liver, Kidney

HMIS CLASSIFICATION

Health Hazard: 1

Chronic Health Hazard: *

Flammability: 2

Physical hazards: 0

NFPA RATING

Health Hazard: 1

Fire: 2

Reactivity Hazard: 0

POTENTIAL HEALTH EFFECTS

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Section 4 - First Aid Measures

GENERAL ADVICE

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

IF INHALED

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

IN CASE OF SKIN CONTACT

Wash off with soap and plenty of water. Consult a physician.

IN CASE OF EYE CONTACT

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

IF SWALLOWED

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5 - Fire Fighting Measures

FLAMMABLE PROPERTIES

Flash point 42 °C (108 °F) - closed cup

Ignition temperature 238 °C (460 °F)

SUITABLE EXTINGUISHING MEDIA

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

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SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Wear self contained breathing apparatus for fire fighting if necessary.

FURTHER INFORMATION

Use water spray to cool unopened containers.

Section 6 - Accidental Release Measures

PERSONAL PRECAUTIONS

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

METHODS FOR CLEANING UP

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

HANDLING

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

STORAGE

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Section 8 - Exposure Controls / Personal Protection

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

HAND PROTECTION

Handle with gloves.

EYE PROTECTION

Face shield and safety glasses

SKIN AND BODY PROTECTION

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

HYGIENE MEASURES

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Section 9 - Physical And Chemical Properties

Appearance	Liquid
Molecular Weight:	90.12 g/mol
Optical Rotation:	n/a
pH	Neutral
Melting point	-90 °C (-130 °F) - lit.
Boiling point	135 °C (275 °F) - lit.
Flash point	42 °C (108 °F) - closed cup
Ignition temperature	238 °C (460 °F)
Lower explosion limit	1.8 %(V)
Upper explosion limit	14 %(V)

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Vapour pressure	5.1 hPa (3.8 mmHg) at 20 °C (68 °F)
Density	0.93 g/mL at 25 °C (77 °F)
Water solubility	completely miscible
Relative vapour Density	3.11 - (Air = 1.0)

Section 10 - Stability and Reactivity

STABILITY

Stable under recommended storage conditions.

CONDITIONS TO AVOID:

May form peroxides on contact with air.

Heat, flames and sparks.

MATERIALS TO AVOID:

Oxidizing agents, Copper

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous decomposition products formed under fire conditions. - Carbon oxides

HAZARDOUS REACTIONS

Vapours may form explosive mixture with air.

Section 11 - Toxicological Information

ACUTE TOXICITY

LD50 Oral - rat - 2,125 mg/kg

Remarks: Behavioral: Somnolence (general depressed activity). Respiratory disorder

LC50 Inhalation - rat - 7 h - 2000 ppm

LD50 Dermal - rabbit - 3,300 mg/kg

IRRITATION AND CORROSION

Skin - rabbit - Open irritation test

Eyes - rabbit - Mild eye irritation - 24 h

SENSITISATION

n/a

CHRONIC EXPOSURE

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

May cause congenital malformation in the fetus.

May cause reproductive disorders.

POTENTIAL HEALTH EFFECTS

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: May be harmful if swallowed.

Target Organs: Blood, Central nervous system, Liver, Kidney

ADDITIONAL INFORMATION

RTECS: KK8050000

Section 12 - Ecological Information

ELIMINATION INFORMATION (persistence and degradability)

n/a

ECOTOXICITY EFFECTS

Toxicity to fish:

LC50 - Lepomis macrochirus - > 10,000 mg/l - 96 h

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Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia - 1,892.52 mg/l - 48 h

FURTHER INFORMATION ON ECOLOGY

n/a

Section 13 - Disposal Considerations

PRODUCT

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

CONTAMINATED PACKAGING

Dispose of as unused product.

Section 14 - Transport Information

DOT (US)

UN-Number: 1171 Class: 3 Packing group: III

Proper shipping name: Ethylene glycol monoethyl ether

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

UN-Number: 1171 Class: 3 Packing group: III EMS-No: F-E, S-D

Proper shipping name: ethylene glycol monoethyl ether

Marine pollutant: No

IATA

UN-Number: 1171 Class: 3 Packing group: III

Proper shipping name: Ethylene glycol monoethyl ether

Section 15 - Regulatory Information

OSHA HAZARDS

Combustible Liquid, Target Organ Effect, Teratogen, Reproductive hazard

DSL STATUS

All components of this product are on the Canadian DSL list.

SARA 302 COMPONENTS

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 COMPONENTS

2-Ethoxyethanol CAS-No.:110-80-5 Revision Date:1993-04-24

SARA 311/312 HAZARDS

Fire Hazard, Chronic Health Hazard

Section 16 - Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.