

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 Diethyl Ether (EDE)
Product No D013
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 1,2-Diethoxyethane
CAS # 16484-86-9 (629-14-1)
Formula C₆H₁₄O₂

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

OSHA Hazards: Flammable liquid, Target Organ Effect, Irritant

Target Organs: Kidney, Female reproductive system., Male reproductive system.

GHS LABEL ELEMENTS, including precautionary statements

Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H303 May be harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/eye protection/face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS CLASSIFICATION

Health hazard: 2

Chronic Health Hazard: *

Flammability: 3

Physical hazards: 0

NFPA RATING

Health hazard: 2

Fire: 3

Reactivity Hazard: 0

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.

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.

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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

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.

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. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

ENVIRONMENTAL PRECAUTIONS

Do not let product enter drains.

METHODS AND MATERIALS FOR CONTAINMENT AND 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

PRECAUTIONS FOR SAFE HANDLING

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

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

CONDITIONS FOR SAFE STORAGE

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

Section 8 - Exposure Controls / Personal Protection

Contains no substances with occupational exposure limit values.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose 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

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Section 9 - Physical And Chemical Properties

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Appearance	Colorless clear liquid
Molecular Weight:	118.17 g/mol
pH	n/a
Melting point	-74 °C (-101 °F) - lit.
Boiling point	121 °C (250 °F) - lit.
Flash point	22 °C (72 °F) - closed cup
Ignition temperature	n/a
Lower explosion limit	n/a
Upper explosion limit	n/a
Vapour pressure	12.5 hPa (9.4 mmHg) at 20 °C (68 °F)
Density	0.842 g/cm ³ at 25 °C (77 °F)
Water solubility	n/a

Section 10 - Stability and Reactivity

CHEMICAL STABILITY

Stable under recommended storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS

Vapours may form explosive mixture with air.

CONDITIONS TO AVOID

Heat, flames and sparks.

MATERIALS TO AVOID

Strong oxidizing agents, Strong acids

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section 11 - Toxicological Information

ACUTE TOXICITY

LD50 Oral - rat - 4,390 mg/kg

Remarks: Behavioral:General anesthetic. Gastrointestinal:Other changes. Kidney, Ureter, Bladder:Other changes.

SKIN CORROSION/IRRITATION

Serious eye damage/eye irritation

Eyes - rabbit - Severe eye irritation

CARCINOGENICITY

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.

REPRODUCTIVE TOXICITY

Reproductive toxicity - rabbit - Oral

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific

Developmental Abnormalities: Musculoskeletal system.

Reproductive toxicity - mouse - Oral

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Reproductive toxicity - mouse - Oral

Effects on Fertility: Litter size (e.g.; # fetuses per litter; measured before birth). Effects on Newborn: Live birth index (# fetuses per litter; measured after birth). Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Developmental Toxicity - mouse - Oral

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Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death.

Developmental Toxicity - mouse - Oral

Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Specific Developmental Abnormalities: Musculoskeletal system.

Specific target organ toxicity - single exposure (GHS)

Inhalation - May cause respiratory irritation.

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.

ADDITIONAL INFORMATION

RTECS: KI1225000

Section 12 - Ecological Information

n/a

Section 13 - Disposal Considerations

PRODUCT

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. 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: 1153

Class: 3

Packing group: II

Proper shipping name: Ethylene glycol diethyl ether

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

UN-Number: 1153

Class: 3

Packing group: II EMS-No: F-E, S-D

Proper shipping name: ETHYLENE GLYCOL DIETHYL ETHER

Marine pollutant: No

IATA

UN-Number: 1153

Class: 3

Packing group: II

Proper shipping name: Ethylene glycol diethyl ether

Section 15 - Regulatory Information

OSHA HAZARDS

Flammable liquid, Target Organ Effect, Irritant

DSL STATUS

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

1,2-Diethoxyethane CAS-No.:629-14-1

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

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 HAZARDS

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

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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.