

IN CASE OF TRANSPORTATION EMERGENCY CONTACT:

**CHEMTREC:(800) 424-9300**

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ALL OTHER INQUIRIES:  
(770) 904-7042 // [www.ciscochem.com](http://www.ciscochem.com)  
266 Rue Cezzan Lavonia, GA 30553



## 1. IDENTIFICATION

PRODUCT NAME: GLYCOL ETHER EE ACETATE  
CHEMICAL NAME: 2-ETHOXYETHANOL ACETATE  
CAS #: 111-15-9  
SYNONYMS: ETHYLENE GLYCOL MONOETHYL ETHER ACETATE, CELLOSOLVE ACETATE  
CHEMICAL FAMILY: GLYCOL ETHERS

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

This material is HAZARDOUS by OSHA Hazard Communication definition.

Signal Word:  
WARNING!

Hazards:  
May cause irritation to skin, eyes, and respiratory tract. May cause central nervous system effects.

Physical State: Liquid.

Color: Clear, colorless.

Odor: Mild Sweetish Odor

### Potential Health Effects

Routes of Exposure:  
Skin. Eye Inhalation

Signs and Symptoms of Acute Exposure:  
See component summary.

- Ethanol, 2-ethoxy-, acetate

Liquid, mist, or vapors can cause eye, skin and respiratory tract irritation and CNS depression. Exposure may cause liver and kidney injury, decreased sperm count and central nervous system effects including headache, drowsiness and slurred speech.

Skin:  
May be absorbed in toxic amounts through the skin.

Inhalation:  
Vapor or mist is irritating to the respiratory tract.

Eye:  
Vapor or mist is irritating to the respiratory tract.

Ingestion:  
May cause headache, dizziness, nausea, vomiting, gastrointestinal distress, liver and kidney injury.

Chronic Health Effects: See component summary.

• Ethanol, 2-ethoxy-, acetate Prolonged contact with skin and inhalation may lead to absorption of harmful amounts. Repeated exposure at high concentrations may cause injury to bone marrow and blood cells, kidney, liver and testes. Reproductive toxin. May cause developmental toxicity.

Conditions Aggravated by Exposure: Any pre-existing disorders or diseases of the, central nervous system (CNS), liver, kidney, lungs, and/or, pregnancy

### 3. COMPOSITION

COMPONENT NAME	Ethanol, 2-Ethoxy,acetate
CAS #	111-15-9
OSHA PEL:	100 PPM
OSHA STEL:	N/L
ACGIH TLV:	5 PPM SKIN
Carcinogenic Listing:	N/L
Concentration by Wt/Mol%	AVERAGE MIN: 99.0 MAX 100.0

### 4. FIRST AID MEASURES

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. For specific information refer to the Emergency Overview in Section 3 of this MSDS.

Inhalation: Move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. When breathing is difficult, properly trained personnel may assist the affected person by administering oxygen. Keep the affected person warm and at rest. Get medical attention immediately.

Eye: Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Obtain medical attention immediately.

Skin: Immediately remove excess chemical and contaminated clothing; thoroughly wash contaminated skin with mild soap and water. If irritation persists after washing, seek medical attention. Thoroughly clean contaminated clothing before reuse; discard contaminated leather goods (gloves, shoes, belts, wallets, etc.).

Ingestion: If victim is conscious and able to swallow, have victim drink water to dilute. Never give anything by mouth if victim is unconscious or having convulsions. Induce vomiting only if advised by a physician or Poison Control Center. **CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY!**

### 5. FIRE FIGHTING MEASURES

NFPA: Health 1; Fire 2; Reactivity 0; Others:

Flammability Classification:  
OSHA/NFPA Class II combustible liquid.

Flash Point / Method:  
52 °C (126 °F)  
ASTM D-56 (Tag Closed Cup)

Auto-Ignition Temperature:  
235 °C (455 °F)

Flammable Limits:  
LOWER: 1.7 vol%  
UPPER: 14 vol%

Hazardous Combustion Products:  
Carbon oxides (CO, CO<sub>2</sub>) Gives off irritating and/or toxic gases in a fire.

Special Conditions to Avoid:  
Airborne mists from this substance are a moderate fire and explosion hazard.

Extinguishing Media:  
SMALL FIRE: Use dry chemicals, CO<sub>2</sub>, water spray or alcohol-resistant foam. LARGE FIRE: Use water spray, water fog or alcohol-resistant foam.

Fire Fighting Instructions:  
Protective Equipment/Clothing: Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.

INSTRUCTIONS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do it without risk. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

## 6. ACCIDENTAL RELEASE MEASURES

Release Response:  
Eliminate all sources of ignition. All equipment used when handling this product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

Reportable Quantities:  
See Section 15: Regulatory Informaiton

## 7. HANDLING AND STORAGE

Handling:  
Containers, even those that have been emptied, will retain product residue and vapor and should be handled as if they were full. Do not eat, drink or smoke in areas where this material is used. After handling, always wash hands thoroughly with soap and water. Do not handle near heat, sparks, or flame. Avoid contact with incompatible agents. Use only with adequate ventilation/personal protection. Avoid contact with eyes, skin and clothing. Do not enter storage area unless adequately ventilated. Metal containers involved in the transfer of this material should be grounded and bonded.

Storage:  
Store containers in a cool, dry, ventilated, fire resistant area away from sources of ignition and incompatible materials. Keep container tightly closed and properly labeled. Do not store in aluminum, zinc (galvanized) or other corrodible containers.

## 8. EXPOSURE CONTROLS AND PERSONAL PROECTION

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Emergency shower and eyewash facility should be in close proximity (ANSI Z358.1)

**Personal Protection:**

**Inhalation:**

A respiratory protection program that meets OSHA's 29 CFR 1910.134 or ANSI Z88.2 requirements must be followed whenever workplace conditions warrant respirator use.

**Skin:**

Wear chemical resistant gloves such as rubber, neoprene or vinyl. Appropriate protective clothing should be worn to prevent skin contact.

**Eye:**

Wear safety glasses as minimum eye protection. Conditions may warrant the use of chemical goggles and possibly a face shield. Consult your standard operating procedure or safety professional for advice. Use protective eye and face devices that comply with ANSI Z87.1-1987.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 156 °C (313 °F)

Vapor Pressure: 1.2 mm Hg @ 20 °C

Specific Gravity: Solid/Liquid: 0.975 (Water = 1)  
Vapor: 4.72 (Air = 1.0)

Octanol/Water Partition Coefficient in Kow:

pH: Not Applicable

Viscosity: No data available.

Water Solubility: Slightly soluble

Melting/ Freezing Point: -62 °C (-80 °F)

Evaporation Rate: 0.21 (butyl acetate = 1)

## 10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Conditions to Avoid: Avoid contact with strong oxidizers, excessive heat, sparks or open flame. Use only in clean, dry, oxygen free storage containers.

Incompatibility with: Oxidizers, Acids, Alkalis Nitrates.

Hazardous Products of Decomposition: Carbon Monoxide and Carbon dioxide.

Hazardous Polymerization: Will not occur.

Reactions with Air and Water: May form peroxides in the presence of air.

## 11. TOXICOLOGICAL INFORMATION

**Component Summary:**

- Ethanol, 2-ethoxy-, acetate

LC50 (Inhl) Rat 12,100 MG/M3 8 HOURS

LD50 (Oral) Rat 3900 MG/KG

ACUTE ORAL EFFECTS: Ethylene glycol monoethyl ether acetate is metabolized to ethylene glycol monoethyl ether (EGEE) in the body. The toxicity of EGEE is believed to be due to the acid metabolite, ethoxyacetic acid. In an acute rat toxicity study, red cell

hemolysis and kidney injury were recorded, while in a combined oral and inhalation study in the dog, hepatic injury occurred.

SKIN EFFECTS: May be irritating to the skin.

EYE EFFECTS: This product is expected to be a mild eye irritant.

Repeated Dose Toxicity Testicular effects were found in mice receiving 1000 mg/kg/day, 5 day/week for 5 weeks. 2-ethoxyethyl acetate is teratogenic and fetotoxic in the rat at dose levels of 130 ppm or more with no maternal toxicity, fetotoxicity and teratogenicity, 100 ppm was fetotoxic and 25 ppm was a no-effect level.

CARCINOGENICITY: At the time of this review, no studies were found on the possible carcinogenic activity of this material in humans or experimental animals.

Reproductive / Development Effects Fertility effects, developmental abnormalities and fetotoxicity have been reported from animal testing (rat). At the time of this review, no studies were found on the possible reproductive/developmental activity of this material in humans.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

This material is highly soluble in water. Laboratory toxicity tests indicate that is not significantly toxic to fish and aquatic invertebrates, although amphibians may be more sensitive. Wildlife species may be more susceptible since mammals and birds do not readily metabolize this material. The odor and flavor of this material may attract some wildlife and cause them to consume spilled material.

### Environmental Fate:

This material should biodegrade after an acclimation period, and it is not expected to be environmentally persistent. Due care should be taken to avoid accidental releases to aquatic or terrestrial systems.

### Bioaccumulation:

Because of this material's high solubility and rapid biodegradability, it is unlikely that bioaccumulation will occur in aquatic or terrestrial systems. Models estimate that this material will preferentially partition to water versus air or soil.

## 13. DISPOSAL CONSIDERATIONS

Dispose of all waste and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations. Recovery and reuse, rather than disposal, should be the ultimate goal of handling efforts. The materials resulting from clean-up operations may be hazardous wastes and therefore, subject to specific regulations.

## 14. TRANSPORT INFORMATION

### Proper Shipping

Name: Ethylene Glycol Monoethyl Ether Acetate

DOT Hazard Class: 3

UN/NA ID: UN1172

Packing Group: PG III

Labels: Flammable Liquid.

Marine Pollutant: No

NAER Guidebook: 129

DOT Status: Regulated material.

## 15. REGULATORY INFORMATION

### TSCA:

All components of this product are listed or are exempt from listing on the TSCA 8(b) inventory. If identified components of this product are listed under the TSCA 12(b) Export Notification rule, they will be listed below.

### TSCA 12(b) Component

### SARA - Section 313 Emissions Reporting:

Component Summary: Ethylene Glycol Monomethyl Ether Acetate      Reporting Threshold: 1.0%

### SARA - Section 311/312:

Based upon available information, this material is classified as the following health and/or physical hazards according to Section 311 & 312:

Immediate (Acute) Health Hazard.      Delayed (Chronic) Health Hazard.      Fire Hazard.

CERCLA Hazardous Substances and their Reportable Quantities:      Component Summary:      Reportable Quantity

### California Prop. 65:

Proposition 65 requires manufacturers or distributors of consumer products into the State of California to provide a warning statement if the product contains ingredients for which the State has found to cause cancer, birth defects or other reproductive harm. If this product contains an ingredient listed by the State of California to cause cancer or reproductive toxicity it will be listed below.

- Ethylene glycol monoethyl ether acetate, Reproductive and Developmental Toxin

## 16. OTHER INFORMATION

### DISCLAIMER OF RESPONSIBILITY:

The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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