
DIETHYL OXALATE

1. Chemical Product And Company Identification

Company's Name: REAGENTS, INC.

Company's P. O. Box: 240746

Company's City: CHARLOTTE

Company's State: NC

Company's Country: US

Company's Zip Code: 28224

Company's Info Ph #: 704/554-7474, 800/732-8484

Emergencies, call CHEMTREC: 800-424-9300

Date MSDS Prepared: April 30, 2003

Synonyms: Ethanedioc acid, diethyl ester; ethyl oxolate

CAS No.: 95-92-1

Molecular Weight: 146.14

Chemical Formula: C₆H₁₀O₄

Product Codes: 600133

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Ethyl Oxalate	95-92-1	90 - 100%	Yes

3. Hazards Identification

Emergency Overview

WARNING! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. COMBUSTIBLE LIQUID AND VAPOR.

Health Rating: 2 - Moderate

Flammability Rating: 2 - Moderate

Reactivity Rating: 2 - Moderate

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER.

Storage Color Code: Red (Flammable)

Potential Health Effects

Inhalation: Inhalation of vapors irritates the respiratory tract. At room temperature the substance has such a low vapor pressure that inhalation of the vapor is unlikely.

Ingestion: Toxic. Swallowing may cause sore throat, abdominal pain, diarrhea, and nervous system effects. If substance enters the lungs (Aspiration), there is a risk of pneumonia.

Skin Contact: Causes irritation with redness and pain. May be absorbed through the skin.

Eye Contact: Causes eye irritation with redness and pain.

Chronic Exposure: Chronic exposure may cause kidney effects.

Aggravation of Pre-existing Conditions: No information found.

4. First Aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Aspiration hazard. If swallowed, **DO NOT INDUCE VOMITING**. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:

Flash point: 76°C (169°F) CC

Combustible Liquid and Vapor!

Explosion Limits, lower: 0.08%

Explosion Limits, upper: Not available.

Explosion: Above the flash point, explosive vapor-air mixtures may be formed.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide. Water may be ineffective.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full-facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect

liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

7. Handling and Storage

Protect against physical damage. Outside or detached storage is preferred. Inside storage should be in a standard flammable liquids storage room or cabinet. Separate from oxidizing materials. Storage and use areas should be No Smoking areas. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits: None established.

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to the substance is apparent, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Clear oily liquid.

Odor: Aromatic odor.

Solubility: Insoluble in water (decomposes).

Density: 1.079 @ 20°C/4°C

pH: No information found.

% Volatiles by volume @ 21°C (70°F): No information found.

Boiling Point: 185°C (365°F)

Melting Point: -41°C (-42°F)

Vapor Density (Air=1): 5.04

Vapor Pressure (mm Hg): 1 @ 20°C (68°F)

Evaporation Rate (BuAc=1): No information found.

10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage. Slowly decomposes in water.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Reacts with strong oxidizers. Incompatible with acids, bases, reducing agents.

Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

11. Toxicological Information

Oral rat LD₅₀: 400 mg/Kg

-----\Cancer Lists\-----

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Ethyl Oxalate (95-92-1)	No	No	None

12. Ecological Information

Environmental Fate: No information found.

Environmental Toxicity: No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA-hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: ETHYL OXALATE

Hazard Class: 6.1

UN/NA: UN2525

Packing Group: III

International (Water, I.M.O.)**Proper Shipping Name:** ETHYL OXALATE**Hazard Class:** 6.1**UN/NA:** UN2525**Packing Group:** III**15. Regulatory Information**

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
Ethyl Oxalate (95-92-1)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----

Ingredient	--Canada--			
	Korea	DSL	NDSL	Phil.
Ethyl Oxalate (95-92-1)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----

Ingredient	-SARA 302-		-----SARA 313-----	
	RQ	TPQ	List	Chemical Catg.
Ethyl Oxalate (95-92-1)	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----

Ingredient	-RCRA-		-TSCA-
	CERCLA	261.33	8(d)
Ethyl Oxalate (95-92-1)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No
 Reactivity: No (Pure / Liquid)

WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information**NFPA Ratings:** Health: 2 Flammability: 2 Reactivity: 1**Label Hazard Warning:** WARNING! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

COMBUSTIBLE LIQUID AND VAPOR.

Label Precautions:

Avoid breathing vapor.

Avoid contact with eyes, skin and clothing.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Keep away from heat, sparks and flame.

Label First Aid: *If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.*

Product Use: *Laboratory Reagent.*

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