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Section I - Product Identification

Product: An aqueous solution of oxalic acid.

Intended Uses: Normally used as a general laboratory reagent.

Uses advised against: For laboratory use only.

Country of origin: United States.

Manufacturer Identification

Medical Chemical Corp.
19430 Van Ness Ave.
Torrance, CA 90501

Customer Service: Phone (310)787-6800
Email: Customerservice@med-chem.com
FAX (310)787-4464

Emergency Telephone Number

CHEMTREC Emergency Response Telephone Number: (800)424-9300. Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.



Section II - Hazard Identification

This item is considered hazardous by 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). May causes skin irritation.

Eye damage/eye irritation: Category 1 (H318). Causes serious eye damage.

Acute toxicity (Oral): Category 4 (H302). Harmful if swallowed.

Acute toxicity (Dermal): Category 4 (H312). Harmful in contact with skin.

Corrosive to Metals: Category 1 (H290). May be corrosive to metals.

Specific target organ toxicity: Category 2 (H373). Causes damage to organs through prolonged or repeated exposure.

Signal word: Danger

Hazard statements

Oxalic acid is a strong acid and is corrosive to the eye and skin. Inhalation, ingestion or skin contact with material may cause severe injury or death. Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases.

P102: Keep out of reach of children.

P202: Do not handle until all safety precautions have been read and understood.

P260: Do not breathe dust/fume/gas/mist/vapors/spray.

P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P363: Wash contaminated clothing before reuse.

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P405: Store locked up.

Safety Ratings

Health: Extremely hazardous *Flammability:* None *Reactivity:* Unstable if heated *Contact:* Hazardous

Recommended safety equipment: Safety goggles, lab coat and proper gloves

NFPA Ratings

Health = 3: Can cause serious or permanent injury.

Flammability = 0: Will not burn.

Reactivity = 1: Normally stable but high temperatures will make unstable.

Potential Health Effects

Inhalation: Oxalic acid has low vapor pressure and is unlikely to be inhaled. Inhaling the dry powder or droplets of the solution will cause ulceration of the structures in the respiratory tract and can cause pulmonary edema.

Ingestion: Will cause severe burns to mouth, esophagus and stomach. Also causes nausea, vomiting, diarrhea, etc.

Skin contact: Can cause burns and ulceration.

Eye contact: Causes serious eye damage.

Chronic Exposure: Repeated or prolonged contact with skin may cause dermatitis. Exposure may result in kidney stones, slow-healing ulcers and black finger nails.

Aggravation of preexisting conditions: Unknown.

Section III - Composition/Information on Components

Ingredient	CAS #	EC/List No.	%
Oxalic acid, dihydrate	6153-56-6	612-167-2	9.6% w/w

Section IV - First Aid Measures

Inhalation: Remove from source of exposure and get immediate medical attention.

Ingestion: Rinse mouth with water but do not induce vomiting. Get immediate medical attention.

Skin Contact: Remove contaminated clothing and launder before reuse. Wash affected area with soap and water. Get medical advice if irritation develops.

Eye Contact: Remove contact lenses if possible and rinse well with water. Get immediate medical advice.

Section V - Fire Fighting Measures

Fire: Not normally a fire hazard.

Explosion: Not normally an explosion hazard.

Fire Extinguishing Media: Any means suitable for surrounding fire.

Special information: Not applicable.

Section VI - Accidental Release Measures

Absorb with a suitable absorbent and store in a suitable container for disposal.

Section VII - Handling and Storage

P102+P233+P403+P405; Store in a well-ventilated place. Keep container tightly closed. Keep out of reach of children. Store away from foodstuffs. Store locked up.

Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Oxalic acid dihydrate	1 mg/m ³ TWA	1 mg/m ³ TWA	500 mg/m ³

Legend

ACGIH: American Conference of Governmental Industrial Hygienists.

OSHA: Occupational Safety and Health Administration.

NIOSH: National Institute for Occupational Safety and Health.

IDLH: Immediately dangerous to life or health.

Ventilation System: Usually not required. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details about ventilation.

Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.

Skin protection: Protective gloves are required as part of good laboratory practice.

Eye Protection: Laboratory safety goggles or similar products are required.

Section IX - Physical and Chemical Properties

Appearance and Odor: A clear, colorless and odorless solution.

Flash point: Not flammable

Auto ignition temperature: Not applicable

Boiling point range: No data

Flammable Limits: Not applicable.

Boiling Point: ~ 102 °C

Density: 1.03 g/ml @ 22.5 °C

Decomposition temperature: Not applicable
Melting point: About 0 °C
pH: < 1
Vapor pressure (mm Hg): 18 @ 20 °C
Viscosity: No data

Evaporation Rate (water = 1): 1
Partition coefficient: Not applicable
Solubility: Infinitely miscible with water
Vapor Density (air = 1): 0.6
VOC: Not applicable

Section X - Stability and Reactivity

Stability: Stable under normal conditions.

Hazardous Decomposition Products: Pyrolysis will release carbon monoxide and other hazardous gases.

Hazardous polymerization: Will not occur.

Incompatibilities: Reacts with organic material.

Conditions to avoid: Excessive cold and heat.

Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium oxalate, dihydrate	375 mg/kg (Rat)	20g/kg (Rabbit)	No Data

Cancer lists

Ingredient	Known Carcinogenicity?	NTP?	Anticipated?	IARC Category
Oxalic acid, dihydrate	No	No	No	None

Section XII - Ecological Information

This product is expected to bioaccumulate. The product does not contain endocrine disrupters, persistent organic pollutants or ozone depleters.

Soil Mobility: Unknown

Environmental Fate: Biodegradable

Hazardous to the aquatic environment, acute hazard: Category 3 (H402). Harmful to aquatic life.

For oxalic acid

Toxicity to freshwater fish (rainbow trout): LC50 = 160 mg/l, 96 h

Toxicity to invertebrates (water flea): EC50 = 162 mg/l, 48 h

Toxicity to freshwater algae (green algae): ErC50 21 mg/l, 72 h

Section XIII - Disposal Considerations

Most local authorities will restrict the drain disposal of strong acids. A common restriction is that the pH of the effluent exiting the building can't be below 4. Insure compliance with all federal, state and local government regulations

Section XIV - Transportation Information

Not regulated by DOT or IATA.

Section XV - Regulatory Information

Chemical Inventory Status

Ingredient	TSCA	EC
Oxalic acid, dihydrate	Yes	Yes

Federal and State Regulations

Ingredient	SARA 302 RQ	SARA 302 TPQ	SARA 313 List	SARA 313 Category	RCRA 261.33	TSCA 8(D)	Ca. Prop 65
Oxalic acid, dihydrate	No	No	No	No	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No

SARA 311/312

Acute:	Yes
Chronic:	No
Fire:	No
Pressure:	No

Section XVI - Other Information

This information is believed to be correct at the time of publication but is not guaranteed as such, nor does it purport to be all inclusive. Medical Chemical Corp. assumes no liability for the accuracy or completeness of the information. The user assumes all responsibility for compliance with federal, state and local laws.

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