

AERCHEM INC.
400 W. 7th Street, Suite 112
Bloomington, IN 47404

Telephone: 812.334.9996 Fax: 812.334.1960 Emergency: 800.424.9300

Effective Date: 07/01/96

Product Name: Oxalic Acid Dihydrate

Chemical Formula: C₂H₂O₄ • 2H₂O

Cas No.: 6153-56-6

Hazardous Ingredients:

TLV : air : 1 mg/m³
TWA : 1 STEL: 2 mg/m³ from ACGIH 1995
IDLH Level : 500 mg/m³

Physical Data:

Melting point (range) Approx.:	decomposes [214.7°F (101.5°C)]
Boiling point:	214.7°F (101.5°C)
pH (depends on quality):	1
Solubility in water:	soluble in cold water
Odor:	N/A
Physical form:	Colorless, Rhombic, white crystals
Vapor pressure:	N/A
Tap density:	N/A
Specific gravity	1.653 (water = 1)
Vapor Density	4.3 (air=1)

Fire and Explosion Information:

Flash point:	N/A
(Auto) Ignition temperature:	N/A
Flammable	yes
Extinguishing media to be recommended:	Dry chemical, CO ₂ , water spray or foam for small fires. Water spray, fog or foam for large fires.
to be avoided:	water jet
Special fire and explosions precautions:	Respirator may be needed due to hazardous decomposition products (CO, CO ₂) which are dangerous to inhale. Move containers from fire area if safely possible.
Fire and explosions hazards:	Very slightly to slightly flammable in presence of oxidizing materials. All information, recommendations and suggestions appearing herein are based upon sources believed to be reliable. However, it is the users responsibility to determine the safety, toxicity, and suitability for its own use of this product. AerChem does not assume any liability arising out of the use by others of this product. Above 250°F material may be sublime to irritating and corrosive vapor or mist.

Reactivity Data: **Stable** X **Unstable**

Hazardous Decomposition: Formic Acid, Carbon Monoxide and Carbon Dioxide gases.

Hazardous Polymerization: Will not occur

Incompatibilities: Slightly reactive to reactive with acids; Furfuryl Alcohol, NaClO₃, NaOCl and any strong oxidizer.

Handling and Storage Information:

Store in a cool dry space. Non-corrosive in presence of glass. Keep away from heat and sources of ignition. Do not ingest or breathe dust. Never add water to this product. Ground all equipment containing material.

Leak/Spill Information:

Wear protective clothing because material is a corrosive, poisonous solid. If necessary, neutralize residue with dilute solution of sodium carbonate. Sweep up for disposal. Waste is toxic.

Disposal Information:

Recycle to process, if possible. Consult local or regional authorities. If regulations permit, small quantities may be dissolved in water neutralized with an alkali and flushed to sewer. Incinerator approved by local, state and federal authorities for large quantities.

Health Hazard Information:

A. Exposure/Health Effects

Toxic by ingestion and inhalation, strong irritant and corrosive to skin, eyes and mucous membranes. Ingestion may cause severe gastroenteritis with vomiting and diarrhea. Renal damage can result from excessive calcium oxalate. Severe poisoning can end fatally. Prolonged skin contact may cause pain and discoloration which could lead to gangrene. Eye contact can result in corneal damage or blindness. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing.

National Toxicology Program:	No
I.A.R.C. Monographs:	No
OSHA:	hazardous by definition of hazard communication standard (29 CFR 1910.1200)

B. First Aid:

Inhalation: Allow victim to rest in well ventilated area. Seek immediate medical attention.

Ingestion: Do not induce vomiting. Have conscious person drink several glasses of water or milk. Seek immediate medical attention.

Skin Contact: Remove contaminated clothes as quickly as possible, protecting your own hands and body. Place victim under deluge shower. Neutralize exposed skin with dilute solution of sodium carbonate. Gently wash with large quantities of water and non-abrasive soap. Cold water may be used. Seek medical attention.

Eye Contact: Remove any contact lenses. Flush with large amounts of water for at least 15 minutes. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Occupational Control Measures:

TWA: 1 STEL: 2 mg/m³ from ACGIH 1995

Ventilation Systems: Process enclosures, local exhaust. Use in well ventilated area. Maintain TLV/TWA

Personal Respirators: vapor & dust MSHA/NIOSH approved respirators.

Skin Protection: Synthetic aprons. Clean uniform weekly.

Eye Protection: Chemical safety goggles or face mask.

Toxicity:

acute oral toxicity LD50 = 33mg/kg (rat)

Transport Information:

DOT classification: class 6.1, poisonous material, toxic solid, corrosive, organic, n.o.s.
(oxalic acid) UN2928 II

DOT pictogram: poison-6 label