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TECHNO PHARMCHEM
An ISO 9001 : 2008 Certified Company
Registered Off. : 101-A, Deep Enclave, Pocket "D", Ashok Vihar, Phase-III, Delhi-110 052 (India)
Corporate Off. : 152, Vardhman City Centre, Near Shakti Nagar Underbridge, Delhi-110052 (India)
Works : Plot No.1022, Modern Industrial Estate, Bahadurgarh-124507, Haryana (India)
Telephone : 0091 - 11 - 23646422 E-mail : tecpharm@gmail.com
Website : www.technopharmchem.com

OXALIC ACID

1. Product Identification
Synonyms: Ethanedioic acid, dihydrate; oxalic acid dihydrate
CAS No.: 144-62-7 (Anhydrous); 6153-56-6 (Dihydrate)
Molecular Weight: 126.07
Chemical Formula: $HOOCCOOH.2H_2O$
Product Code: 32423, 32424

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Oxalic Acid	144-62-7	99 - 100%

3. Hazards Identification
Potential Health Effects

Inhalation: Harmful if inhaled. Can cause severe irritation and burns of nose, throat, and respiratory tract.
Ingestion: May cause burns, nausea, severe gastroenteritis and vomiting, shock and convulsions.
Skin Contact: Can cause severe irritation, possible skin burns. May be absorbed through the skin.
Eye Contact: Oxalic acid is an eye irritant. It may produce corrosive effects.
Chronic Exposure: May cause inflammation of the upper respiratory tract. Prolonged skin contact can cause dermatitis, cyanosis of the fingers and possible ulceration. May affect kidneys.
Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or eye problems, or impaired kidney or respiratory function may be more susceptible to the effects of the substance.

4. First Aid Measures
Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.
Ingestion: DO NOT INDUCE VOMITING! Give large quantities of limewater or milk to drink. Never give anything by mouth to an unconscious person. Call a physician immediately.
Skin Contact: In case of contact, wipe off excess from skin then immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Eye Contact: Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician immediately.

5. Fire Fighting Measures
Fire: Not considered to be a fire hazard.
Explosion: Reacts explosively with strong oxidizing materials and some silver compounds.
Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide. Foam or water on molten oxalic acid may cause frothing. Water spray may be used to keep fire exposed containers cool.
Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures
Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.
Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Pick up spill for recovery or disposal and place in a closed container. Remove unnecessary people. If material comes in contact with water, neutralize liquid with alkaline material (soda ash, lime), then 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
Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities.

8. Exposure Controls/Personal Protection
Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. 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.
Personal Respirators (NIOSH Approved): If the exposure limit is exceeded, a half-face respirator with an organic vapor cartridge and dust/mist filter may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.
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 full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties
Appearance: Transparent, colorless crystals.
Odor: Odorless.
Solubility: ca. 1g/7mL of water.
Specific Gravity: 1.65 @ 18.5C/4C
pH: No information found.
% Volatiles by volume @ 21C (70F): 0
Boiling Point: 149 - 160C (300 - 320F) Sublimes.
Melting Point: 101.5C (216F)
Vapor Density (Air=1): 4.4
Vapor Pressure (mm Hg): < 0.001 @ 20C (68F)
Evaporation Rate (BuAc=1): No information found.

10. Stability and Reactivity
Stability: Stable under ordinary conditions of use and storage. Heat will contribute to instability.
Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition. May also form formic acid.
Hazardous Polymerization: Will not occur.
Incompatibilities: Alkalis, chlorites, hypochlorites, oxidizing agents, furfuryl alcohol and silver compounds.
Conditions to Avoid: Heat, ignition sources and incompatibililites.

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11. Toxicological Information
Oral rat LD50: 375 mg/kg; irritation skin rabbit: 500 mg/24H mild; eye rabbit 250 ug/24H severe; investigated as a reproductive effector.

12. Ecological Information
Environmental Fate: No information found.
Environmental Toxicity: No information found.

13. Disposal Considerations
Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information
Land

Proper Shipping Name: OXALIC ACID,DIHYDRATE
Hazard Class: 8
UN/NA: UN3261
Packing Group: III
Information reported for product/size: 12KG
Water

Proper Shipping Name: OXALIC ACID,DIHYDRATE
Hazard Class: 8
UN/NA: UN3261
Packing Group: III
Information reported for product/size: 12KG

15. Regulatory Information
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
Reactivity: No (Mixture / Solid)

16. Other Information
Product Use:
Laboratory Reagent.