SAFETY DATA SHEET
Oxalic Acid

1. Product and Company Identification

Product Name: 99.6% PURE OXALIC ACID Powder C2H2O4

Manufacturer: FDC | EcoClean Solutions
570 Oak St
Copiague, NY 11726
877-416-6880

Telephone Number: 877-416-6880
Emergency Phone Number: Chemtrec (800) 424-9300
Product Use: Various
Restriction on Use: None known

2. Hazards Identification

Classification:

Physical	Health
Not Hazardous	Eye Damage Category 1 Acute Toxicity Category 4 (oral and dermal)

Danger!

Hazard statement(s)

Causes serious eye damage.
Harmful if swallowed and in contact with skin.
May form combustible dust concentrations in air.

Precautionary statement(s)
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, protective clothing and eye protection

Precautionary statement(s)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
IF SWALLOWED: Call a POISON CENTER or doctor is you feel unwell. Rinse mouth.
IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor if you feel unwell. Take of contaminated clothing and wash it before reuse.
Dispose of contents and container in accordance with federal and local regulations.

3. Composition/Information on Ingredients

Component	CAS No.	Amount
Oxalic Acid	144-62-7	100%

4. First Aid Measures

Inhalation: Remove to fresh air. Get medical attention if irritation or other symptoms persist.

Skin Contact: Wash skin thoroughly with soap and water for several minutes. Get medical attention if irritation develops and persists.

Eye Contact: Flush eyes thoroughly with water at least 20 minutes while lifting the upper and lower lids. Remove

contact lenses if present and easy to do. Get immediate medical attention.

Ingestion: Do not induce vomiting unless directed to do so by a medical professional. Rinse mouth with water. Get medical attention.

Most important symptoms/effects, acute and delayed: Cause serious eye irritation with possible corneal damage. May cause skin irritation, discoloration and possible ulceration. Inhalation of dust may cause mucous membrane and respiratory irritation. Swallowing may cause abdominal pain, vomiting, weak pulse, kidney damage, headache, convulsions and possibly death. Skin absorption may cause symptoms like ingestion.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is required for eye contact.

5. Firefighting Measures

Suitable (and unsuitable) extinguishing media: Use media appropriate for the surrounding fire.

Specific hazards arising from the chemical: Not flammable but will burn under fire conditions. Dust generated in cutting or other processing of this material may present a potential fire and explosion hazard if suspended in air at high concentrations. Settled dust presents a fire hazard. Re-suspension of the dust into the air by vibration, traffic, material handling, etc. in high concentrations in the presence of an ignition source could result in a dust explosion. Minimize the generation and accumulation of dust. Combustion will produce formic acid and oxides of carbon.

Special protective equipment and precautions for fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Avoid contact with skin and clothing. Prevent eye contact. Avoid breathing dust. Wear personal protective as described in Section 8.

Environmental hazards: Avoid releases into the environment**.** Report spill as required by local and federal regulations.

Methods and materials for containment and cleaning up: Avoid generating airborne dust during clean-up. Shovel or sweep the material into an appropriate waste container. If a vacuum is used, explosion proof equipment is required. Nonsparking tools should be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentrations. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Thoroughly wash area after spill.

7. Handling and Storage

Precautions for safe handling: Prevent eye contact. Avoid contact with skin and clothing. Avoid breathing dust. Wear protective clothing and equipment as described in Section 8. Wash thoroughly with soap and water after handling. Launder contaminated clothing before re-use. Use only with adequate ventilation. Minimize the generation and accumulation of dust. Keep dust away from open flames, hot surfaces and sources of ignition. Follow good housekeeping practices to keep surfaces, including areas overhead such as piping, drop ceilings, ductwork, etc. free from settled dust. Dry powders can build static electricity charges when subjected to friction of transfer and in mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Empty containers retain product residues that can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for safe storage, including any incompatibilities: Keep containers closed when not in use. Store in a dry area away from incompatible materials. Protect from physical damage.

8. Exposure Controls / Personal Protection

CHEMICAL	EXPOSURE LIMIT
Oxalic Acid	1 mg/m3 TWA, 2 mg/m3 STEL ACGIH TLV 1 mg/m3 TWA OSHA PEL

Ventilation: Use adequate local or general ventilation to maintain exposure levels below occupational exposure limits. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e. there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.
Respiratory Protection: If the occupational exposure limits are exceeded, an approved respirator with particulate filters or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with applicable regulations and good industrial hygiene practice.
Gloves: Avoid skin contact and wash hands after use. Impervious gloves recommended.
Eye Protection: Chemical safety goggle to prevent eye contact.
Other Protective Equipment/Clothing: Impervious clothing recommended where needed to avoid skin contact.

9. Physical and Chemical Properties

Appearance: White crystals or powder.
Odor: Odorless.

Odor threshold: Not applicable	**pH:** 1.3 (0.1M solution)
Melting point/freezing point: 101.5ºC (215ºF)	**Boiling point/ Boiling Range:** 49-160ºC (300-320ºF)
Flash point: Not applicable	**Evaporation rate:** Not applicable
Flammability (solid, gas): May form combustible dust concentrations in air.	
Flammable limits: LEL: Not applicable	**UEL:** Not applicable
Vapor pressure: <0.001mmHg @20 ºC	**Vapor density:** 4.3
Relative density: 1.65	**Solubility in Water:** Soluble
Partition coefficient: n-octanol/water: -1.7	**Auto-ignition temperature:** Not available
Decomposition temperature: Not available	**Viscosity:** Not applicable

10. Stability and Reactivity

Reactivity: Not reactive under normal storage and handling conditions.
Chemical stability: Stable normal temperature and pressures.
Possibility of hazardous reactions: Creates a strong acid when exposed to water.
Conditions to avoid: Avoid high temperatures and incompatible materials.
Incompatible materials: Bases, moisture, strong oxidizers, chlorites, hypochlorites (bleach).
Hazardous decomposition products: Heating may produce oxides of carbon and formic acid.

11. Toxicological Information

Inhalation: Inhalation of dust may cause irritation to the nose, throat and upper respiratory tract.
Skin Contact: May cause skin irritation, discoloration and possible ulceration. Skin absorption may cause symptoms like ingestion.
Eye Contact: Causes severe eye irritation, redness, pain and tearing. May cause corneal damage.
Ingestion: Swallowing may cause abdominal pain, vomiting, weak pulse, kidney damage, headache, convulsions and possibly death.
Chronic Hazards: None known.
Carcinogen: This product is not listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Mutagenicity: This product has not been shown to cause germ cell mutagenicity.
Reproductive Toxicity: This product has not been shown to cause reproductive or developmental toxicity.

Acute Toxicity Values:
Oxalic Acid: Oral rat LD50 375 mg/kg, dermal rabbit >5,000 mg/kg.

12. Ecological Information

Ecotoxicity:
Oxalic Acid: Leuciscus idus melanotus LC50: 160 mg/L/ 48 hr.
Persistence and degradability: Readily biodegradable.
Bioaccumulative potential: Not bioaccumulative.
Mobility in soil: No data available
Other adverse effects: None known.

13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations.

14. Transport Information

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	None	Not Regulated	None	None	

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None known.

15. Regulatory Information

Safety, health, and environmental regulations specific for the product in question.

CERCLA Section 103: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Refer to Section 2 for the OSHA Hazard Classification.

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Title III, Section 313 (40 CFR 372): None

EPA TSCA Inventory: All of the ingredients in this product are listed on the EPA TSCA Inventory.

California Proposition 65: This product contains the following substances known to the State of California to cause cancer and/or reproductive harm (birth defects): None

16. Other Information

NFPA Rating (NFPA 704):	Health: 3	Fire: 1	Instability: 0
HMIS Rating:	Health: 3	Fire: 1	Physical Hazard: 0

SDS Revision History: New SDS
Date of preparation: July 6, 2018
Date of last revision: None