# Safety Data Sheet

**Issuing Date** 08-May-2011 **Revision Date** 08-Dec-2022 **Revision Number** 2

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier**

**Product Name** Oxalic Acid, Dihydrate
**Synonyms:** dicarboxylic acid C2, dihydrate / dicarboxylic acid, dihydrate / ethandionic acid, dihydrate / ethanedioic acid, dihydrate / oxiric acid, dihydrate
**CAS** 6153-56-6
**Formula** C2H2O4.2H2O

**Recommended use of the chemical and restrictions on use**

Recommended use Textile. Cleansing product: component Leather/fur: dyeing. Reagent.
Uses advised against None identified

**Manufacturer/Importer/Supplier/Distributor Information**

Florida Laboratories Inc.
6245 Powerline Road, Suite 103
Fort Lauderdale, FL 33309
Telephone: (954) 543-6384

**Emergency Telephone Number** CHEMTREC USA: 1-800-424-9300.

## 2. HAZARDS IDENTIFICATION

### Classification

**GHS-US**

| | |
|---|---|
| H314 | Skin Corr. 1B |
| H318 | Eye Dam. 1 |

### Label Elements

**Signal word** **DANGER**

**Hazard Pictograms (GHS-US)**

**Hazard Statements:**

H302 – Harmful if swallowed
H312 – Harmful in contact with skin

**Precautionary Statements:**

**Prevention**

P264 - Wash exposed skin thoroughly after handling
P270 – Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves, protective clothing, eye protection, face protection
P312 – Call a POISON CENTER or doctor/physician if you feel unwell
P362 – Take off contaminated clothing and wash before reuse.

**Response**

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable

for breathing
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container to comply with local, state and federal regulations.

## Other Hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## Unknown Acute Toxicity

No data available.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No. | Weight % | EINECS |
|---|---|---|---|
| Oxalic Acid, Dihydrate (Main constituent) | CAS: 6153-56-6 | 100% | 205-634-3 |

## 4. FIRST AID MEASURES

### FIRST AID MEASURES

**First-aid mesures, general** Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

**Eye contact** Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

**Skin contact** Wash immediately with lots of water. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists..

**Inhalation** Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

**Ingestion** Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Doctor: administration of chemical antidote. Doctor: gastric lavage is not recommended.

### Most important symptoms and effects, both acute and delayed

**Inhalation** AFTER INHALATION OF DUST: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Nausea. Vomiting

**Skin contact** Tingling/irritation of the skin. FOLLOWING SYMPTOMS MAY APPEAR LATER: May stain the skin. Discolouration of the (finger)nails

**Eye contact** Irritation of the eye tissue. ON CONTINUOUS EXPOSURE/CONTACT: Corrosion of the eye tissue. Permanent eye damage.

**Ingestion** AFTER ABSORPTION OF HIGH QUANTITIES: Burns to the gastric/intestinal mucosa. Nausea. Blood in vomit. Blood in stool. Shock. FOLLOWING SYMPTOMS MAY APPEAR LATER: Decreased renal function. Change in urine output. Change in

urine composition.

**Chronic symptoms** ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Decreased renal function. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Coughing. Skin rash/inflammation..

**Indication of any immediate medical attention and special treatment needed**

No data available.

**Other information**

Call 911 or emergency medical service. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing media**

**Suitable extinguishing media** Preferably: water spray. Polyvalent foam. Alcohol-resistant foam. ABC powder. Carbon dioxide.

**Unsuitable extinguishing media** None identified.

**Specific hazards arising from the chemical** DIRECT FIRE HAZARD. Non-flammable. In finely divided state: increased fire hazard.
INDIRECT FIRE HAZARD. Heating increases the fire hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
DIRECT EXPLOSION HAZARD. Its dust is explosive with air.
INDIRECT EXPLOSION HAZARD. Dust cloud can be ignited by a spark. Reactions with explosion hazards: see "Reactivity Hazard"

**Hazardous combustion products** On heating: release of corrosive gases/vapours (formic acid). Upon combustion: CO and CO2 are formed. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts violently with (some) bases: release of heat. Decomposes on exposure to UV light: release of corrosive gases/vapours (formic acid)..

**Other Explosion Data**
**Sensitivity to Mechanical Impact** Not sensitive.
**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Gloves. Face-shield. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Dust cloud production: dust-tight suit.

**Emergency procedures** Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

**Measures in case of dust release** Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

**Environmental precautions**

**Environmental precautions** LARGE SPILLS: Prevent entry into waterways, sewers, basements or confined areas.

Dispose of in accordance with local, state, and federal laws.

**Methods and material for containment and cleaning up**

**Methods for Containment** Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Powdered form: no compressed air for pumping over spills

**Methods for Cleaning Up** Stop dust cloud by humidifying. Neutralize spill with quicklime or soda ash. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Powdered: do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Use corrosionproof equipment. Thoroughly clean/dry the installation before use. Powdered form: no compressed air for pumping over. Avoid raising dust. Keep away from naked flames/heat. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

**Hygiene measures** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

**Storage** Hygroscopic. May sublimate. Substance has acid reaction.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

| Components | CAS-No. | Form of exposure | Permissible concentration | Basis |
|---|---|---|---|---|
| ethanedioic acid, dihydrate | 6153-56-6 | WES-TWA | 1 mg/m3 | NZ OEL |
| | | WES-STEL | 2 mg/m3 | NZ OEL |

**Appropriate engineering controls**

**Engineering Measures** Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

**Individual protection measures, such as personal protective equipment**

**Eye/face Protection** Face shield. In case of dust production: protective goggles**.**

**Hand Protection** Wear the following personal protective equipment: Standard glove type.

Natural rubber, Neoprene gloves, Nitrile, PVC. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

**Skin and Body Protection** Personal protective equipment comprising: suitable protective gloves,

safety goggles and protective clothing

**Respiratory Protection** Dust production: dust mask with filter type P2

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

**Environmental Exposure Controls** Follow best practice for site management and disposal of waste.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | | | |
|---|---|---|---|
| **Material Description** | | | |
| Physical form: | Solid | Appearance/Description: | Crystalline solid. Powder. Grains |
| Color: | White | Odor: | Odorless |
| Odor Threshold: | Data lacking | Molecular Mass | 126.07 g/mol |
| **General Properties** | | | |
| Boiling Point: | No data available | Melting Point: | 101°C |
| Decomposition Temperature: | 157°C | pH: | 1.0 (13 %) |
| Specific Gravity/Relative Density: | 1.6 | Solubility (Water): | Soluble 14g/100mL |
| Viscosity: | No data available | Solubility (Ethanol) | Soluble 40 g/100mL |
| Solubility (Ether) | Soluble | Solubility (Glycerol) | Soluble |
| Oxidizing Properties: | | | |
| **Volatility** | | | |
| Vapor Pressure: | No data available | Vapor Densit @ 20°C: | 4.3 |
| Evaporation Rate: | | | |
| **Flammability** | | | |
| Flash Point: | No data available | UEL: | No data available |
| LEL: | No data available | Auto-ignition: | Data lacking |
| Flammability (solid, gas): | | | |
| **Environmental** | | | |
| Log Pow: | -1.74 (Estimated value) | | |
| **Other:** | | | |
| Saturation concentration | 0.0015 g/m³ | | |

## 10. STABILITY AND REACTIVITY

**Reactivity**
On contact with hot surfaces or flames this substance decomposes forming formic acid and carbon monoxide. The solution in water is a medium strong acid.

**Chemical stability**
Stable under normal conditions.

**Possibility of Hazardous Reactions**
None under normal processing.

**Conditions to Avoid**
Incompatible materials. High temperature. Moisture. Avoid dust formation

**Incompatible materials**
Strong oxidizers. Strong bases. metals. Acid chlorides.

**Hazardous Decomposition Products**
Carbon monoxide. Carbon dioxide. Formic Acid.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

| | |
|---|---|
| **Eye contact** | Causes severe skin burns. pH: 1.0 (13 %) |
| **Skin contact** | Causes serious eye damage. pH: 1.0 (13 %) |
| **Respiratory or skin sensitization** | Not classified |

**Other Toxicity Information**

| | |
|---|---|
| **Acute Toxicity** | Not classified |
| **Germ cell mutagenicity** | Not classified |
| **Carcinogenicity** | Not classified |
| **Reproductive toxicity** | Not classified |
| **Specific target organ toxicity (single exposure)** | Not classified |
| **Specific target organ toxicity (repeated exposure)** | Not classified |
| **Aspiration hazard** | Not classified |

**Symptom Information**

| | |
|---|---|
| **Symptoms/injuries after inhalation** | AFTER INHALATION OF DUST: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Nausea. Vomiting. |
| **Symptoms/injuries after skin contact** | Tingling/irritation of the skin. FOLLOWING SYMPTOMS MAY APPEAR LATER: May stain the skin. Discolouration of the (finger)nails. |
| **Symptoms/injuries after eye contact** | Irritation of the eye tissue. ON CONTINUOUS EXPOSURE/CONTACT: Corrosion of the eye tissue. Permanent eye damage |
| **Symptoms/injuries after ingestion** | AFTER ABSORPTION OF HIGH QUANTITIES: Burns to the gastric/intestinal mucosa. Nausea. Blood in vomit. Blood in stool. Shock. FOLLOWING SYMPTOMS MAY APPEAR LATER: Decreased renal function. Change in urine output. Change in urine composition |
| **Chronic symptoms** | ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Decreased renal function. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Coughing. Skin rash/inflammation |

| Component Name | CAS | Data |
|---|---|---|
| Oxalic Acid, Dihydrate | 6153-56-6 | LD50 oral rat" 7500 mg/kg<br>LD50 dermal rat: 20000 mg/kg |

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

| | |
|---|---|
| General | No data available |
| Water Ecology | Mild water pollutant (surface water). Ground water pollutant. Harmful to fishes. Slightly harmful to invertebrates (Daphnia) (EC50 (48h): 100 - 1000 mg/l). Slightly harmful to algae (EC50 (72h): 100 - 1000 mg/l). Slightly harmful to aquatic organisms (EC5 |

| **Oxalic Acid, Dihydrate(6153-56-6)** | |
|---|---|
| LC50 fishes 1 | 34.1 mg/l (96 h; Pimephales promelas; ANHYDROUS FORM) |
| LC50 other aquatic organisms 1 | 100 - 1000 mg/l (96 h; ANHYDROUS FORM) |
| EC50 Daphnia 1 | 137 mg/l (48 h; Daphnia magna; ANHYDROUS FORM) |
| LC50 fish 2 | 160 mg/l (48 h; Leuciscus idus; ANHYDROUS FORM) |
| TLM fish 1 | 4000 mg/l (24 h; Lepomis macrochirus; ANHYDROUS FORM) |
| Threshold limit other aquatic organisms 1 | 100 - 1000,96 h; ANHYDROUS FORM |

| | |
|---|---|
| Threshold limit algae 1 | 790 mg/l (168 h; Scenedesmus quadricauda; ANHYDROUS FORM) |
| Threshold limit algae 2 | 80 mg/l (192 h; Microcystis aeruginosa; ANHYDROUS FORM) |

**Persistence and degradability**
Readily biodegradable in water. Readily biodegradable in water in anaerobic conditions. Photolysis in water. Biodegradable in the soil. Photolysis in the air.

**Mobility**
No data available

**Bioaccumulation**
Log Pow -1.74 (Estimated value)
Bioaccumulative potential Not Applicable

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Waste Disposal Method** Remove waste in accordance with local and/or national regulations. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery.

**Contaminated Packaging** Dispose of in accordance with applicable regulations.

## 14. TRANSPORT INFORMATION

**DOT** Not dangerous goods

**IMDG** Not dangerous goods

**IATA** Not dangerous goods

**Further Information** Not classified as dangerous in the meaning of transport regulations.

## 15. REGULATORY INFORMATION

**The components of this product are reported in the following inventories:**

**Switzerland. New notified substances and declared preparations** :
On the inventory, or in compliance with the inventory

**United States TSCA Inventory** :
All substances listed as active on the TSCA inventory

**Canadian Domestic Substances List (DSL)** :
All components of this product are on the Canadian DSL.

**Australia. Industrial Chemical (Notification and Assessment) Act** : On the inventory, or in compliance with the inventory

**Japan. ENCS - Existing and New Chemical Substances Inventory** : On the inventory, or in compliance with the inventory

**Korea. Korean Existing Chemicals Inventory (KECI)** : On the inventory, or in compliance with the inventory

**Philippines Inventory of Chemicals and Chemical Substances (PICCS)** : On the inventory, or in compliance with the inventory

**China Inventory of Existing Chemical Substances** : On the inventory, or in compliance with the inventory

**Taiwan Chemical Substance Inventory** :
On the inventory, or in compliance with the inventory

## 16. OTHER INFORMATION

| | |
|---|---|
| **Prepared by** | Product Steward |
| **Issuing Date** | 08-May-2015 |
| **Revision Date** | 08-Dec-2022 |
| **Revision Note** | Revisions to updated GHS format |

**Disclaimer**

**The information in this safety data sheet (SDS) is believed to be accurate and is given in good faith but no representation or warranty as to its completeness or accuracy is made. Suggestions for uses or applications are only opinions. Users are responsible for determining the suitability of these products for their own particular purpose. No representation or warranty, express or implied, is made with respect to information or products including without limitation warranties of merchantability or fitness for a particular purpose or non-infringement of any third party patent or other intellectual property rights including without limit copyright, trademark and designs.**

**End of SDS**