

SAFETY DATA SHEET

Preparation Date: 09/17/2019

Revision date 09/17/2019

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: O-120
Product Name: OXALIC ACID, 10 PERCENT (W/V) AQUEOUS SOLUTION

Other means of identification

Synonyms: No information available
CAS #: Mixture
RTECS # Not available
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2

Label elements

Danger

Hazard statements

Causes severe skin burns and eye damage
 May cause respiratory irritation
 May cause damage to organs through prolonged or repeated exposure



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Do not breathe mist or vapors
 Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

Immediately call a POISON CENTER or physician
 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 physician.
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water
 Wash contaminated clothing before reuse
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Call a POISON CENTER or physician if you feel unwell.
 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Water	7732-18-5	90
Oxalic Acid, Dihydrate	6153-56-6	10

4. FIRST AID MEASURES

First aid measures

General Advice:

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. First aider needs to protect himself. Ensure that medical

personnel are aware of the material(s) involved and take precautions to protect themselves.

Skin Contact: Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Immediate medical attention is required. Call a physician or poison control center immediately.

Eye Contact: Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms

- Severe skin and eye irritation or burns
- May cause conjunctivitis
- May cause corneal injury
- Irritating to respiratory system
- Causes digestive (gastrointestinal) tract irritation
- May cause gastrointestinal (digestive) tract burns
- It may affect the urinary system
- It may affect the kidneys
- May cause hypocalcemia
- May affect the cardiovascular system
- Hypotension
- May cause abdominal pain, nausea, vomiting, diarrhea
- Burning pain in the mouth, throat, esophagus, stomach. Ulceration/burning of the mouth, throat, esophagus, stomach
- May cause central nervous system effects
- Headache
- Convulsions
- Twitching
- May cause tingling of hands and feet

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous combustion products

No information available.

Specific hazards

May be ignited by heat, sparks or flames.

Special Protective Actions for Firefighters

Specific Methods:

No information available

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container.

Methods for cleaning up

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Neutralize the residue with a dilute solution of sodium carbonate. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not ingest. Use only in well-ventilated areas. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Oxidizing agents
Metals
Alkalis

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Water	7732-18-5	None	None	None	None
Oxalic Acid, Dihydrate	6153-56-6	1 mg/m ³ TWA (for Oxalic acid, anhydrous)	2 mg/m ³ STEL 1 mg/m ³ TWA (for Oxalic acid, anhydrous)	2 mg/m ³ STEL 1 mg/m ³ TWA	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Water	7732-18-5	None	None	None	None
Oxalic Acid, Dihydrate	6153-56-6	None	2 mg/m ³ STEL 1 mg/m ³ TWA (for Oxalic acid, anhydrous)	2 mg/m ³ STEL 1 mg/m ³ TWA (for Oxalic acid, anhydrous)	None

Australia and Mexico

Component	CAS No	Australia	Mexico
Water	7732-18-5	None	None
Oxalic Acid, Dihydrate	6153-56-6	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles
- Skin and body protection:** Long sleeved clothing
Chemical resistant apron
Gloves
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	Appearance: Clear.	Color: Colorless.
Odor: Odorless.	Taste No information available.	Formula No information available
Molecular/Formula weight (g/mole): No information available	Flammability (solid, gas) no data available	Flashpoint (°C/°F): No information available
Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): -3°C/ 27°F	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 100°C/ 212°F (water)	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: 1.04-1.05	pH No information available	Vapor pressure @ 20°C (kPa): 2.3 (Water)
Evaporation rate: No information available	Vapor density: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Miscibility: No information available	Solubility: Easily soluble in cold water Easily soluble in hot water Partially soluble in diethyl ether	

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents, metals, bases
Incompatible with chlorites, hypochlorites, silver and silver compounds, furfuryl alcohol

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Oxidizing agents
Metals
Alkalis

Hazardous decomposition products: No information available.

Other Information

Corrosivity: Non-corrosive in the presence of glass

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Skin. Eyes. Ingestion. Inhalation.

Acute Toxicity

Component Information

Water	
CAS No	7732-18-5

LD50/oral/rat = > 90 mL/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Oxalic Acid, Dihydrate	
CAS No	6153-56-6

LD50/oral/rat = 375 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
Value - Acute Toxicity = No information available

LD50/oral/mouse =
Value - Acute Tox = No information available

LD50/dermal/rabbit
Value - Acute Toxicity = No information available

LD50/dermal/rat
VALUE - Acute Tox = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Severe skin irritation. Causes skin burns.

Eye Contact: Causes severe irritation and burns. May cause corneal injury. Causes conjunctivitis.

Inhalation Causes irritation of the respiratory tract, ulceration of the mucous membranes. Inhalation of oxalic acid may also cause digestive disturbances such as nausea and vomiting as well as affecting the nerves and urinary system and causing headache, muscular irritability, weakness, and albuminuria.

Ingestion Harmful if swallowed. Causes severe digestive tract irritation and possible burns. It may affect the cardiovascular system, and urinary system. Symptoms may include vomiting (often bloody or with coffee-ground appearance), diarrhea, bloody stool, hypermotility, abdominal pain, intense burning pain in the throat, esophagus, stomach, ulceration/burning of the mouth, esophagus, and stomach, severe purging, weak pulse, hypotension, cardiac irregularities, cardiovascular collapse. Other symptoms may include convulsions, headache, twitching, tetany, stupor, coma, tingling of fingers and toes, muscular irritability. Renal damage, as evidenced by oliguria, albuminuria, hematuria, may occur because Oxalic acid can bind calcium to form calcium oxalate which is insoluble at physiological pH. The calcium oxalate formed might precipitate in the kidney tubules. Hypocalcemia may also occur, which is what may affect the function of the heart and nerves and cause the above cardiovascular and nervous system effects.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Skin: Prolonged or repeated exposure may cause localized pain and cyanosis of the fingers, and even gangrenous changes. This has occurred on the hands of people working with oxalic acid solutions without rubber gloves. Prolonged or repeated contact with oxalic acid can also cause a skin rash, pain, redness, blisters, and slow healing ulcers.
Ingestion and Inhalation: Repeated or prolonged ingestion and inhalation may affect metabolism/appetite resulting in weight loss. Inhalation of mist over a long period of time may result in respiratory tract inflammation. Ingestion of oxalic acid over a long period of time may cause depressed thyroid function (Oxalic acid dihydrate).

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Oxalic Acid, Dihydrate	6153-56-6	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity

No data is available

Reproductive Effects:

May cause adverse reproductive effects based on animal data

Developmental Effects:

No information available

Teratogenic Effects:

No information available

Specific Target Organ Toxicity

STOT - single exposure

respiratory system.

STOT - repeated exposure

No information available.

Target Organs:

Kidneys. Nervous system. Mucous membrane. Heart. Brain. Skin. Eyes.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects:

No data available.

Persistence and degradability:

No information available

Bioaccumulative potential:

No information available.

Mobility in soil

No information available

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Water	7732-18-5	None	None	None	None
Oxalic Acid, Dihydrate	6153-56-6	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No:

UN3265

Proper Shipping Name:

Corrosive liquid, acidic, organic, n.o.s.(oxalic acid solution)

Hazard Class

8

Subsidiary Class

No information available

Packing group:

III

Product code: O-120

Product name: OXALIC ACID, 10
PERCENT (W/V) AQUEOUS
SOLUTION

Page 9 / 13

Emergency Response Guide 153**Number****Marine Pollutant** No data available**DOT RQ (lbs):** No information available**Special Provisions** IB3, T7, TP1, TP28**Symbol(s):** [DOT]: (G) - Identifies proper shipping names for which one or more technical names of the hazardous material must be entered in parentheses, in association with the basic description.**Description:** UN3265, Corrosive liquid, acidic, organic, n.o.s., 8, III**TDG (Canada)****UN-No:** UN3265**Proper Shipping Name:** Corrosive liquid, acidic, organic, n.o.s.(oxalic acid solution)**Hazard Class** 8**Subsidiary Risk:** No information available**Packing Group:** III**Marine Pollutant** No Information available**Description:** UN3265, Corrosive liquid, acidic, organic, n.o.s., 8, III**ADR****UN Number** UN3265**Proper Shipping Name:** Corrosive liquid, acidic, organic, n.o.s.(oxalic acid solution)**Transport hazard class(es)** 8**Packing group** III**Subsidiary Risk:** No information available**Special Provisions** 274**Description:** UN3265, Corrosive liquid, acidic, organic, n.o.s., 8, III**IMDG****UN-No:** UN3265**Proper Shipping Name:** Corrosive liquid, acidic, organic, n.o.s.(oxalic acid solution)**Hazard Class:** 8**Subsidiary Risk:** No information available**Packing Group:** III**Marine Pollutant** No information available**EMS:** F-A**Special Provisions** 223, 274**Description** UN3265, Corrosive liquid, acidic, organic, n.o.s. (OXALIC ACID, DIHYDRATE), 8, III**RID****UN Number** UN3265**Proper Shipping Name:** Corrosive liquid, acidic, organic, n.o.s.(oxalic acid solution)**Transport hazard class(es)** 8**Subsidiary Risk:** No information available**Packing group** III**Special Provisions** 274**Description:** UN3265, Corrosive liquid, acidic, organic, n.o.s., 8, III**ICAO (air)****UN-No:** UN3265**Proper Shipping Name:** Corrosive liquid, acidic, organic, n.o.s.(oxalic acid solution)**Hazard Class** 8**Subsidiary Risk:** No information available**Packing Group:** III**Description:** UN3265, Corrosive liquid, acidic, organic, n.o.s., 8, III**Special Provisions** A3

IATA

UN Number UN3265
Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.(oxalic acid solution)
Transport hazard class(es) 8
Subsidiary Risk: No information available
Packing group III
Precautionary Statements - Response 8L
Special Provisions No information available
Description: UN3265, Corrosive liquid, acidic, organic, n.o.s., 8, III

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
Water	7732-18-5	PresentACTIVE	Present KE-35400	Present	Not present	Present	Present	Present 231-791-2
Oxalic Acid, Dihydrate	6153-56-6	Oxalic acid, dihydrate (CAS no. 6153-56-6) is exempt from TSCA(8b)Inventory listing since it is a hydrate. However, the anhydrous form (CAS number 144-62-7) is listed as ACTIVE on the TSCA (8b) Inventory	Not present	Present	Present (2)-844	Present	Present	Not present

U.S. Regulations

Oxalic Acid, Dihydrate
Pennsylvania RTK: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Water	7732-18-5	Not Listed	Not Listed	Not Listed	Not Listed
Oxalic Acid, Dihydrate	6153-56-6	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and	Section 302 Extremely Hazardous	Section 302 Extremely Hazardous	Section 313 - Chemical Category	Section 313 - Reporting de minimis

		their Reportable Quantities	Substances and TPQs	Substances and RQs		
Water	7732-18-5	None	None	None	None	None
Oxalic Acid, Dihydrate	6153-56-6	None	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Water	7732-18-5	Not Applicable	Not Applicable
Oxalic Acid, Dihydrate	6153-56-6	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Water
7732-18-5 (90)
Oxalic Acid, Dihydrate
6153-56-6 (10)

WHMIS 2015 Hazard Classification
Not a dangerous product according to HPR classification criteria

Acute toxicity - Oral - Category 4: H302 Harmful if swallowed.;
Skin corrosion/irritation - Category 2: H315 Causes skin irritation.;
Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.;
Combustible Dust - Category 1: May form combustible dust concentrations in air (factors such as combustibility and explosiveness of dusts including composition and shape and size of particles could cause substance to belong to 'Combustible dust' hazard class)

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Water	7732-18-5	Present	Not Listed
Oxalic Acid, Dihydrate	6153-56-6	Not Listed	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Water	7732-18-5	Not listed
Oxalic Acid, Dihydrate	6153-56-6	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Water	7732-18-5	Not listed
Oxalic Acid, Dihydrate	6153-56-6	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Water	7732-18-5	
Oxalic Acid, Dihydrate	6153-56-6	No information

EU - CLP (1272/2008)

R-phrase(s)

R34 - Causes burns

R41 - Risk of serious damage to eyes

S -phrase(s)

S 7 - Keep container tightly closed.

S36 - Wear suitable protective clothing

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Water	7732-18-5		No information	
Oxalic Acid, Dihydrate	6153-56-6		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

C - Corrosive



16. OTHER INFORMATION

Preparation Date: 09/17/2019
Revision date 09/17/2019
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet