

## MATERIAL SAFETY DATA SHEET

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Version 1.3

## Section 1 - Product and Company Information

Product Name OXALIC ACID, 99+%  
Product Number 241172  
Brand ALDRICH

Company Sigma-Aldrich  
Street Address 3050 Spruce Street  
City, State, Zip, Country SAINT LOUIS MO 63103 US  
Technical Phone: 314 771 5765  
Emergency Phone: 414 273 3850 Ext. 5996  
Fax: 800 325 5052

## Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
OXALIC ACID	144-62-7	No

Formula C2H2O4  
Synonyms Acide oxalique (French) \* Acido ossalico (Italian) \* Aktisal \* Aquisal \* Ethanedioic acid \* Ethanedionic acid \* Kyselina stavelova (Czech) \* NCI-C55209 \* Oxaalzuur (Dutch) \* Oxalic acid (ACGIH:OSHA) \* Oxalsaeure (German)  
RTECS Number: RO2450000

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Corrosive.

Causes burns. Harmful in contact with skin and if swallowed.

Possible risk of harm to the unborn child.

Target organ(s): Kidneys. Nerves.

## HMIS RATING

HEALTH: 3\*

FLAMMABILITY: 0

REACTIVITY: 1

## NFPA RATING

HEALTH: 3

FLAMMABILITY: 0

REACTIVITY: 1

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

## Section 4 - First Aid Measures

## ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. Do not induce vomiting.

#### INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

#### DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

#### EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

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#### Section 5 - Fire Fighting Measures

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##### EXPLOSION DATA

Dust Potential: This material, like most materials in powder form, is capable of creating a dust explosion.

##### FLASH POINT

N/A

##### AUTOIGNITION TEMP

N/A

##### FLAMMABILITY

N/A

##### EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

##### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
Specific Hazard(s): Emits toxic fumes under fire conditions.

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#### Section 6 - Accidental Release Measures

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##### PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

##### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

##### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

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#### Section 7 - Handling and Storage

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##### HANDLING

User Exposure: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

##### STORAGE

Suitable: Keep tightly closed.

##### SPECIAL REQUIREMENTS



Explosion Limits	N/A
Flammability	N/A
Autoignition Temp	N/A
Refractive Index	N/A
Optical Rotation	N/A
Miscellaneous Data	N/A
Solubility	Other Solvents: WATER (14%), ALCOHOL, ETHER GLYCEROL

N/A = not available

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## Section 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

Conditions to Avoid: Protect from moisture.

Materials to Avoid: Avoid contact with metals., Alkali metals

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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## Section 11 - Toxicological Information

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### ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: Harmful if absorbed through skin.

Eye Contact: Causes burns.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

### TARGET ORGAN(S) OR SYSTEM(S)

Kidneys. Nerves. Blood. Eyes.

### SIGNS AND SYMPTOMS OF EXPOSURE

Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### TOXICITY DATA

Oral

Woman

600 mg/kg

LDLO

Remarks: Gastrointestinal: Changes in structure or function of esophagus. Gastrointestinal: Hypermotility, diarrhea.

Gastrointestinal: Other changes.

Oral

Rat

7500 mg/kg

LD50

Intraperitoneal  
Mouse  
270 MG/KG  
LD50

#### IRRITATION DATA

Skin  
Rabbit  
500 mg  
24H  
Remarks: Mild irritation effect

Eyes  
Rabbit  
0.25 mg  
24H  
Remarks: Severe irritation effect

Eyes  
Rabbit  
100 mg  
4S  
Remarks: Rinsed

#### CHRONIC EXPOSURE - TERATOGEN

Result: Possible risk of congenital malformation in the fetus.

#### CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Mouse  
Dose: 8400 MG/KG  
Route of Application: Oral  
Exposure Time: (7D MALE/7D PRE-21D PREG)  
Result: Effects on Fertility: Other measures of fertility  
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g.,  
stunted fetus).

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#### Section 12 - Ecological Information

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#### ACUTE ECOTOXICITY TESTS

Test Type: EC50 Daphnia  
Species: Daphnia magna  
Time: 48 h  
Value: 125 - 150 mg/l

Test Type: LC0 Fish  
Species: Lepomis macrochirus (Bluegill)  
Time: 96 h  
Value: 24 mg/l

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#### Section 13 - Disposal Considerations

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#### APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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#### Section 14 - Transport Information

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DOT

Proper Shipping Name: Corrosive solid, acidic,  
organic, n.o.s.  
UN#: 3261  
Class: 8  
Packing Group: Packing Group II  
Hazard Label: Corrosive  
PIH: Not PIH

IATA

Proper Shipping Name: Corrosive solid, acidic,  
organic, n.o.s.  
IATA UN Number: 3261  
Hazard Class: 8  
Packing Group: II

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Section 15 - Regulatory Information

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EU DIRECTIVES CLASSIFICATION

Symbol of Danger: Xn  
Indication of Danger: Harmful.  
R: 21/22  
Risk Statements: Harmful in contact with skin and if swallowed.  
S: 24/25  
Safety Statements: Avoid contact with skin and eyes.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Corrosive.  
Risk Statements: Causes burns. Harmful in contact with skin and  
if swallowed. Possible risk of harm to the unborn child.  
Safety Statements: In case of contact with eyes, rinse  
immediately with plenty of water and seek medical advice. Take  
off immediately all contaminated clothing. Wear suitable  
protective clothing, gloves, and eye/face protection.  
US Statements: Target organ(s): Kidneys. Nerves.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No  
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in  
accordance with the hazard criteria of the CPR, and the MSDS  
contains all the information required by the CPR.  
DSL: Yes  
NDSL: No

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Section 16 - Other Information

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DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not  
purport to be all inclusive and shall be used only as a guide. The  
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