

ACROS

ORGANICS

Material Safety Data Sheet

Creation Date 22-Oct-2009

Revision Date 06-Oct-2011

Revision Number 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Oxalic acid, anhydrous	
Cat No.	AC186430000; AC186430010; AC186430050; AC186432500	
Synonyms	Ethanedionic acid	
Recommended Use	Laboratory chemicals	
Company Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100	Entity / Business Name Acros Organics One Reagent Lane Fair Lawn, NJ 07410	Emergency Telephone Number For information in the US, call: 001-800-ACROS-01 For information in Europe, call: +32 14 57 52 11 Emergency Number, Europe: +32 14 57 52 99 Emergency Number, US: 001-201-796-7100 CHEMTREC Phone Number, US: 001-800-424-9300 CHEMTREC Phone Number, Europe: 001-703-527-3887

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Causes severe eye burns. Causes skin burns. Harmful in contact with skin and if swallowed. Irritating to respiratory system. Corrosive to metals. Hygroscopic.

Appearance White

Physical State Powder Solid

odor odorless

Target Organs

Liver, Kidney, Respiratory system, Eyes, Skin

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes	Causes severe burns. May cause blindness or permanent eye damage.
Skin	Harmful in contact with skin. Causes burns.
Inhalation	Irritating to respiratory system. May be harmful if inhaled.
Ingestion	Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects. May cause adverse kidney effects.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Oxalic acid	144-62-7	98

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Obtain medical attention.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point	> 93.4°C / > 200.1°F
Method	No information available.
Autoignition Temperature	No information available.
Explosion Limits	
Upper	No data available
Lower	No data available
Unsuitable Extinguishing Media	No information available.
Hazardous Combustion Products	No information available.
Sensitivity to mechanical impact	No information available.
Sensitivity to static discharge	No information available.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

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

NFPA**Health 3****Flammability 1****Instability 0****Physical hazards N/A****6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

Environmental Precautions

Should not be released into the environment.

Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. HANDLING AND STORAGE**Handling**

Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Do not store in metal containers. Corrosives area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Oxalic acid	TWA: 1 mg/m ³ STEL: 2 mg/m ³	(Vacated) TWA: 1 mg/m ³ (Vacated) STEL: 2 mg/m ³ TWA: 1 mg/m ³	IDLH: 500 mg/m ³ TWA: 1 mg/m ³ STEL: 2 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWA EV
Oxalic acid	TWA: 1 mg/m ³ STEL: 2 mg/m ³	TWA: 1 mg/m ³ STEL: 2 mg/m ³	TWA: 1 mg/m ³ STEL: 2 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment**Eye/face Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Powder Solid
Appearance	White
odor	odorless
Odor Threshold	No information available.
pH	1.3 9 g/L
Vapor Pressure	< 0.01 mmHg @ 20 °C
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	No information available.
Melting Point/Range	189 - 191°C / 372.2 - 375.8°F
Decomposition temperature	No information available.
Flash Point	> 93.4°C / > 200.1°F
Evaporation Rate	No information available.
Specific Gravity	1.900
Solubility	Soluble in water
log Pow	No data available
Molecular Weight	90.04
Molecular Formula	C2 H2 O4

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions. Hygroscopic.
Conditions to Avoid	Avoid dust formation. Incompatible products. Excess heat. Exposure to moisture.
Incompatible Materials	Strong oxidizing agents, Strong bases, Metals, Acid chlorides
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂)
Hazardous Polymerization	Hazardous polymerization does not occur
Hazardous Reactions .	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Oxalic acid	7500 mg/kg (Rat)	20000 mg/kg (Rat)	Not listed

Irritation Causes severe eye burns. Causes skin burns

Toxicologically Synergistic Products No information available.

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

Sensitization No information available.

Mutagenic Effects No information available.

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects Developmental effects have occurred in experimental animals.

Teratogenicity Teratogenic effects have occurred in experimental animals..

Other Adverse Effects See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Oxalic acid	Not listed	4000 mg/L LC50 24 h	Not listed	EC50 = 136.9 mg/L/48h

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility

Component	log Pow
Oxalic acid	-0.81

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

14. TRANSPORT INFORMATION

DOT

UN-No	UN2923
Proper Shipping Name	CORROSIVE SOLIDS, TOXIC, N.O.S.
Proper technical name	(OXALIC ACID)
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

14. TRANSPORT INFORMATION

TDG

UN-No UN2923
Proper Shipping Name CORROSIVE SOLIDS, TOXIC, N.O.S.
Hazard Class 8
Subsidiary Hazard Class 6.1
Packing Group II

IATA

UN-No UN2923
Proper Shipping Name CORROSIVE SOLIDS, TOXIC, N.O.S.
Hazard Class 8
Subsidiary Hazard Class 6.1
Packing Group II

IMDG/IMO

UN-No UN2923
Proper Shipping Name CORROSIVE SOLIDS, TOXIC, N.O.S.
Hazard Class 8
Subsidiary Hazard Class 6.1
Packing Group II

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Oxalic acid	T	X	-	205-634-3	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313
Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
Not applicable

Clean Air Act
Not applicable

OSHA
Not applicable

CERCLA
Not Applicable

California Proposition 65
This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Oxalic acid	X	X	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ):	N
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Slight risk, Grade 1

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

- D1B Toxic materials
- E Corrosive material



16. OTHER INFORMATION

Prepared By Regulatory Affairs
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Creation Date 22-Oct-2009

Print Date 06-Oct-2011

Revision Summary "****", and red text indicates revision

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS