



MATERIAL SAFETY DATA SHEET

Sodium oxalate

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium oxalate

Catalog Numbers: BPE353-500, S/5800/48, S/5800/53, S/5840/50, S/5840/53, S/5840/71

Synonyms: Ethanedioic acid, disodium salt; Oxalic acid, disodium salt; Disodium oxalate; Sodium oxalate.

Company Identification: Fisher Scientific UK
Bishop Meadow Road, Loughborough
Leics. LE11 5RG

For information in Europe, call: (01509) 231166

Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
62-76-0	Sodium oxalate	> 99.5	200-550-3

Hazard Symbols: XN**Risk Phrases:** 21/22

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful in contact with skin and if swallowed. Hygroscopic (absorbs moisture from the air).

Potential Health Effects

- Eye:** Causes eye irritation. May result in corneal injury.
- Skin:** Oxalate is an irritant and may cause dermatitis. Skin lesions begin with epithelial cracking and the formation of slow-healing ulcers. The fingers may appear cyanotic.
- Ingestion:** Ulcerations of the mouth, vomiting of blood, and rapid appearance of shock, convulsions, twitching, tetany, and cardiovascular collapse may occur following ingestion of oxalic acid or its soluble salts. Systemic effects may be due to formation of calcium oxalate which is insoluble at physiological pH and can be deposited in the brain and kidney tubules. Resultant hypocalcemia might disturb the function of the heart and nerves. Mean lethal dose for oxalates in adults is estimated at 10 - 30 grams (143 - 428 mg/kg).
- Inhalation:** Inhalation of oxalic acid dust or vapor produces irritation of the respiratory tract, protein in the urine, nosebleed, ulceration of the mucous membranes, headache, nervousness, cough, vomiting, emaciation, back pain (due to kidney injury), and weakness.
- Chronic:** Inhalation of oxalic acid dust or mist over a long period of time might result in weight loss and respiratory tract inflammation. Rats administered oxalic acid at 2.5 and 5% in the diet for 70 days developed depressed thyroid function and weight loss. A study of railroad car cleaners in Norway who were heavily exposed to oxalic acid solutions and vapors revealed a

53% prevalence of urolithiasis (the formation of urinary stones), compared to a rate of 12% among unexposed workers from the same company.

Section 4 - First Aid Measures

Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.
Skin:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.
Ingestion:	If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician:	Treat symptomatically and supportively.
Antidote:	Intravenous administration of calcium gluconate or calcium chloride may be required if hypocalcemia or hypocalcemic tetany occur.

Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool.
Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling:	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid breathing dust.
Storage:	Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture. Oxalates slowly corrode steel.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

CAS# 62-76-0:

Personal Protective Equipment

Eyes:	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:	Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: white

Odor: odorless

pH: Neutral in solution.

Vapor Pressure: Negligible.

Viscosity: Not available

Boiling Point: Decomposes

Freezing/Melting Point: 250 - 270 deg C

Autoignition Temperature: Not applicable

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

Decomposition Temperature:

Solubility in water: Moderately soluble in water.

Specific Gravity/Density: 2.34 (water=1)

Molecular Formula: C₂O₄Na₂

Molecular Weight: 134

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: High temperatures, dust generation, moisture, Oxalates slowly corrode steel..

Incompatibilities with Other Materials Strong oxidizing agents.

Hazardous Decomposition Products Carbon monoxide, carbon dioxide, sodium oxide, formic acid.

Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 62-76-0: KI1750000

LD50/LC50: RTECS:

CAS# 62-76-0: Oral, mouse: LD50 = 5094 mg/kg;

Oral, rat: LD50 = 11160 mg/kg;

Other: Mean lethal dose for oxalates in adults is estimated at 10-30 grams (143-428 mg/kg).

Carcinogenicity: Sodium oxalate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such

chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	TOXIC SOLID, ORGANIC, N.O.S.*	TOXIC SOLID, ORGANIC, N.O.S.	TOXIC SOLID, ORGANIC, N.O.S.
Hazard Class:	6.1	6.1	6.1
UN Number:	2811	2811	2811
Packing Group:	III	III	III

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 21/22 Harmful in contact with skin and if swallowed.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 62-76-0: 1

Canada

CAS# 62-76-0 is listed on Canada's DSL List

US Federal

TSCA

CAS# 62-76-0 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 2/02/1999

Revision #14 Date 6/29/2007

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
