

Safety Data Sheet



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: OXALIC ACID

Other name(s): Ethanedioic acid; Ethanedionic acid; Dicarboxylic acid.

Recommended Use of the Chemical and Restrictions on Use Textile cleaning, rust removal, metal cleaning.

Supplier: Ixom Operations Pty Ltd
ABN: 51 600 546 512
Street Address: Level 8, 1 Nicholson Street
East Melbourne Victoria 3002
Australia

Telephone Number: +61 3 9906 3000
Emergency Telephone: 1 800 033 111 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:

Acute Oral Toxicity - Category 4
Acute Dermal Toxicity - Category 4
Eye Damage - Category 1

SIGNAL WORD: DANGER



Hazard Statement(s):

H302+H312 Harmful if swallowed or in contact with skin.
H318 Causes serious eye damage.

Precautionary Statement(s):

Prevention:

P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

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Response:

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P363 Wash contaminated clothing before re-use.

P322 Specific measures (see First Aid Measures on Safety Data Sheet).

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

Storage:

No storage statements.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

Poisons Schedule (SUSMP): S6 Poison.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Oxalic acid	144-62-7	>=99.6%	H312 H302

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact:

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye Contact:

Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport promptly to hospital or medical centre.

Ingestion:

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by the mouth to an unconscious patient. Seek immediate medical assistance.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically. Can cause corneal burns.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

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Specific hazards arising from the chemical:

Non-combustible material.

Special protective equipment and precautions for fire-fighters:

Decomposes on heating emitting toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in dust. Sweep up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

Precautions for safe handling:

Avoid skin and eye contact and breathing in dust. Avoid handling which leads to dust formation. When using do not eat, drink or smoke. Wash hands thoroughly after handling. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated place. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Oxalic acid: 8hr TWA = 1 mg/m³, 15 min STEL = 2 mg/m³

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

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Appropriate engineering controls:

Ensure ventilation is adequate to maintain air concentrations below Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Crystalline Powder
Colour:	White
Odour:	Odourless
Solubility:	Soluble in water , glycerol and alcohol. Partially soluble in ether. Insoluble in chloroform petroleum ether and benzene .
Specific Gravity:	1.9 @25°C
Relative Vapour Density (air=1):	Not available
Vapour Pressure (20 °C):	<0.01 hPa
Flash Point (°C):	Not applicable
Flammability Limits (%):	Not available
Autoignition Temperature (°C):	Not available
Melting Point/Range (°C):	189.5
Decomposition Point (°C):	Not available
pH:	1.3 at 9 g/L

10. STABILITY AND REACTIVITY

Reactivity: Reacts exothermically with alkalis. Reacts with strong oxidising agents. Hygroscopic: absorbs moisture or water from surrounding air.

Chemical stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

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Possibility of hazardous reactions:	Accelerated decomposition occurs when mixed with strong oxidising agents. Vigorous reaction may occur with alkalis yielding heat and pressure, and with acid chlorides producing toxic fumes. May react violently with alkali metals producing flammable hydrogen gas. Reacts strongly with oxidising agents, especially sodium chlorite and sodium hypochlorite. Can react with some silver compounds to form explosive silver oxalates. Dry oxalic acid is not corrosive to metals. Corrosive to metals in the presence of moisture.
Conditions to avoid:	Avoid alkali material in storage and in use. Avoid exposure to moisture.
Incompatible materials:	Incompatible with alkalis. Incompatible with strong oxidising agents. Incompatible with most metals in the presence of moisture.
Hazardous decomposition products:	Hydrogen. Carbon monoxide. Oxygen, which will support combustion.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:	Swallowing can result in a severe burning pain of the mouth, throat and stomach followed by profuse vomiting (sometimes bloody). Small doses of oxalate in the body can cause headache, pain and twitching in muscles, and cramps. Larger doses can cause weak and irregular heartbeat, drop in blood pressure and signs of heart failure. Large doses rapidly cause a shock-like state, convulsions, coma and possibly death.
Eye contact:	A severe eye irritant. Contamination of eyes can result in permanent injury.
Skin contact:	Contact with skin will result in mild irritation. Solutions of 5% to 10% oxalic acid are irritating to the skin after prolonged exposure and can cause corrosive injury.
Inhalation:	Breathing in dust may result in respiratory irritation. Inhaled oxalic acid is readily absorbed into the body and may cause headaches and nausea.
Acute toxicity: Oral LD50 (rat): 382 mg/kg	
Skin corrosion/irritation:	Mild irritant (rabbit).
Serious eye damage/irritation:	Severe irritant (rabbit).
Respiratory or skin sensitisation:	Not a skin sensitiser (mouse).
Chronic effects:	Long term exposure can result in kidney stones and stone formation in the urinary tract.
Mutagenicity:	No evidence of mutagenic effects.
Carcinogenicity:	Not listed as carcinogenic according to the International Agency for Research on Cancer (IARC).
Reproductive toxicity:	No information available.
Aspiration hazard:	No information available.
	Exposure to this compound can result in systemic effects including kidney damage, muscle twitching, cramps and nervous system complaints.

12. ECOLOGICAL INFORMATION

Product Name: OXALIC ACID
Substance No: 000030127001

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Ecotoxicity	Avoid contaminating waterways.
Persistence/degradability:	This product is readily biodegradable.
Bioaccumulative potential:	No information available.
Mobility in soil:	No information available.
48hr EC50 (Daphnia magna):	162.2 mg/L
48hr LC50 (fish):	160 mg/L

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Refer to Waste Management Authority. Dispose of contents and container in accordance with local, regional, national, international regulations.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification:

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:

Acute Oral Toxicity - Category 4
Acute Dermal Toxicity - Category 4
Eye Damage - Category 1

Hazard Statement(s):

H302+H312 Harmful if swallowed or in contact with skin.
H318 Causes serious eye damage.

Poisons Schedule (SUSMP): S6 Poison.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

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'Registry of Toxic Effects of Chemical Substances'. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2018.
Supplier Safety Data Sheet; 10/ 2017.

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

Reason(s) for Issue:

5 Yearly Revised Primary SDS

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.