JacJay Ltd

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	Oxalic Acid
Product Use:	Textile cleaning, flameproofing, rust removal, metal and equipment cleaning, anti-corrosion coating, chemical intermediate and catalyst
New Zealand Supplier:	Jac Jay Ltd
Address:	25 Walls Road, Penrose, Auckland P O Box 12 161, Penrose Auckland
Telephone:	64 9 571 0023
Fax Number:	64 9 571 0022
website:	www.jacjay.co.nz
Emergency Telephone:	**0800 764 766 (0800 Poison)**
Date of SDS Preparation:	**20 May 2013**

Section 2. Hazards Identification

This substance is hazardous according to the *HSNO (Minimum Degrees of Hazard) Regulations 2001*

EPA Approval Code: **HSR002710**

Hazard Classes; **Pictograms** 6.1D (oral), 6.1D (derm), 6.1D(inh), 6.8C, 6.9B(derm), 8.1A, 8.2C, 8.3A, 9.3B

ECOTOXIC **HEALTH HAZARD** **TOXIC** **CORROSIVE**

HSNO Classification	Hazard Code	Hazard Statement
6.1D (oral)	H302	Harmful if swallowed.
6.1D (dermal)	H312	Harmful in contact with skin.
6.1D (inhalation)	H332	Harmful if inhaled.
6.8C	H362	May cause harm to breast-fed children.
6.9B (Single exposure)	H371	May cause damage to organs
8.1A	H290	May be corrosive to metals.
8.2C	H314	Causes severe skin burns and eye damage.
8.3A	H318	Causes serious eye damage.
9.3B	H432	Toxic to terrestrial vertebrates.

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P104	Read safety data sheet before use
P201	Obtain special instructions before use.

P234	Keep only in original container.
P260	Do not breathe fumes or vapours.
P263	Avoid contact during pregnancy/while nursing.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves, protective clothing, eye protection and face protection.

Response code	**Response Statement**
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P309 + P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

Storage Code	**Storage Statement**
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.

Disposal Code	**Disposal Statement**
P501	Triple rinse container before disposal or crush or puncture to prevent reuse.

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Oxalic acid	100%	144-62-7

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes: If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open.Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if needed.

If on Skin: As quickly as possible, flush contaminated area with lukewarm, gently running water for at least 20 minutes, by the clock. Under running water, remove contaminated clothing, shoes, and leather goods (e.g., watchbands, belts). Completely decontaminate clothing before re-use or discard. Do not re-use contaminated shoes or leather goods. Obtain medical advice immediately.

If Swallowed: DO NOT INDUCE VOMITING. Wash out mouth with water and give plenty of water to drink. Seek immediate medical attention.

If Inhaled: Remove source of contamination or move victim to fresh air. If breathing has stopped, trained personnel should begin artificial respiration, or if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately (avoid mouth-to-mouth contact). Obtain medical attention immediately.

General: Provide general supportive measures (comfort, warmth, rest). Consult a physician and/or the nearest Poison Control Centre for all exposures except minor instances of inhalation of skin contact. All first aid procedures should be periodically reviewed by a physician familiar with the material and its conditions of use in the workplace.

Section 5. Fire Fighting Measures

Hazard Type	Combustible solid
Hazards from decomposition products	Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide, carbon dioxide and formic acid.
Suitable Extinguishing media	Use water fog, foam or dry agent
Precautions for firefighters and special protective clothing	This product will burn if exposed to fire. Keep containers cool. Water may be used to flush spills away from exposures. Fumes may be highly toxic and irritating. Fire-fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode.
HAZCHEM CODE	**2RE**

Section 6. Accidental Release Measures

Spill : Remove all sources of heat. Increase ventilation. Wear sufficient respiratory protection and full protective clothing to minimise skin and eye exposure. Sweep up material avoiding dust generation. With a clean shovel, transfer spilled material into clean, labelled containers for disposal. Prevent from entering drains, sewers, streams or other bodies of water. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

Section 7. Handling and Storage

Approved Handlers: Are not required

Precautions for safe handling:

- Do not use near flames or hot surfaces. Use dust-tight containers.
- Prevent accumulations of dust.
- Avoid generating mist/dust.
- Use smallest possible amounts in designated areas with adequate ventilation.
- Have emergency equipment (for fires, spills, leaks, etc.) readily available.
- Label containers.
- Keep containers closed when not in use.
- Empty containers may contain residues which are hazardous

Conditions for safe storage:

- Store in a cool, dry, well-ventilated location.
- Store away from heat and fire hazards.
- Store away from incompatible materials such as oxidizing materials and bases.
- Use corrosion-resistant structural materials and lighting and ventilation systems in the storage area.

- Store in suitable, labelled containers.
- Keep containers tightly closed when not in use and when empty.
- Protect from damage.
- Limit quantity of material in storage.
- Restrict access to storage area.
- Post warning signs when appropriate.
- Keep storage area separate from populated work areas.
- Inspect periodically for deficiencies such as damage or leaks.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	CAS # (a)	TWA ppm(b) mg/m3(c)	STEL ppm(b) mg/m3(c)
Oxalic acid	144-62-7	1 mg/m^3	2 mg/m^3

Workplace Exposure Standard – Time Weighted Average (WES-TWA*).The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure.* Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). *The 15-minute average exposure standard.* Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply.

Engineering Controls: Engineering control methods to reduce hazardous exposures are preferred. General methods include mechanical ventilation (dilution and local exhaust), process or personnel enclosure, control of process conditions, and process modification (e.g., substitution of a less hazardous material). Administrative controls and personal protective equipment may also be required. Use a corrosion-resistant ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside. Use local exhaust ventilation, and process enclosure if necessary, to control airborne dust/mist. Supply sufficient replacement air to make up for air removed by exhaust systems.

Note - Exposure to this material can be controlled in many ways. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Use this general information to help develop specific control measures. Ensure that control systems are properly designed and maintained. Comply with occupational, environmental, fire and other applicable regulations.

Personal Protective Equipment:

Respiratory System: Where sufficient ventilation is not available, avoid breathing dust by wearing an AS 1716 approved P1 particulate filter respirator. Dependent on airrborne concentrations a supplied air respirator may be required. Final choice of appropriate breathing protection is dependent upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision.
Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices..

Skin and body: Suitable protective clothing should be worn e.g. cotton overalls buttoned at neck and wrist.

Hands: For prolonged or repeated handling, use the following type of gloves:
Recommended: Natural rubber, neoprene, nitrile.
Useful: Butyl rubber, polyethylene, chlorinated polyethylene.
Not recommended: Polyvinyl alcohol.

NOTE: Resistance of specific materials can vary from product to product. Evaluate resistance under conditions of use and maintain clothing carefully

Eyes: Safety glasses with side shields, goggles or full faceshield should be worn as described in Australian Standard AS/NZS 1337 – Eye Protectors for Industrial Applications.

Section 9 Physical and Chemical Properties

Physical State:	Transparent crystals
Colour:	colourless
Odour:	odourless
pH:	1.3 (0.1M solution in water)
Solubility:	Soluble in water, alcohol, glycerol, partially soluble in ether
Viscosity :	no data
Relative Density	1.65 @ 25^0C (water = 1)
Boiling point:	149^0C – 160^0C (dihydrate)
Melting point:	187^0C
Flash Point:	not applicable
Vapour Pressure:	< 0.14 Pa @ 20^0C

Section 10. Stability and Reactivity

Chemical Stability: Normally stable. If heated to melting point, sublimation and decomposition occurs

Materials to Avoid:

BASES - vigorous reaction may occur, yielding heat and pressure.
OXIDIZING AGENTS (e.g. sodium chlorite, sodium hypochlorite) – may react violently or explosively.
SILVER - May form explosive silver oxalate.
ALKALI METALS (e.g. sodium or potassium) - may react violently and produce flammable hydrogen gas.
IRON AND IRON COMPOUNDS (e.g. ferric oxide) - may react rapidly to form ferric oxalate.
ACID CHLORIDES - may react vigorously, producing toxic fumes.

Hazardous Decomposition Products: may emit toxic and/or irritating fumes including carbon monoxide, carbon dioxide and formic acid

Section 11 Toxicological Information

Acute Oral Toxicity LD_{50} Male Rat (oral): 475 mg / kg
LD_{50} Female Rat (oral): 375 mg / kg

Acute Dermal Toxicity LD_{50} Rabbit (dermal): 20 000 mg / kg

Eye Irritation (rabbit): A 30-second exposure to a 5% oxalic acid solution produced conjunctivitis and severe corneal damage which was reversible

Skin Irritation (rabbit): Skin contact with a saturated solution of oxalic acid (about 10%) for five minutes produced redness which persisted for 24 hours; some scaliness was evident but no puffiness or ulceration developed.

Embryotoxic Effects: Sheep fed 6 to 10 g/day throughout gestation produced lambs with calcium oxalate crystals in their kidneys. There was no indication of embryotoxicity

Chronic Effects

Rats fed 2.5 to 5% oxalic acid in their diet showed a loss in growth rate and total body weight and experienced 10 to 25% mortality; males developed stones of calcium oxalate which blocked the urinary system (urolithiasis); estrous cycles were disrupted in females.

Section 12. Ecotoxicological Information

HSNO Classifications: 9.3B

Environmental Precautions: Collect all spillage and dispose according to relevant local regulations.

Ecotoxicity Data:

	Vertibrate ecotoxicity
Ingredient	**Rat LD_{50}(mg/kg)**
Oxalic Acid	375 mg/kg

Section 13. Disposal Considerations

Triple rinse container before disposal or crush or puncture to prevent reuse. Collect all spillage. Dispose of according to all local regulations.

Section 14 Transport Information

This substance is classified as a dangerous good for land transport by NZS5433: 2012

Road and Land Transport

UN No	3261
Class-primary	8
Packing Group	I
Proper Shipping Name:	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.

Section 15 Regulatory Information

EPA Approval Code: HSR002710

HSNO Controls:

Trigger quantities for this substance:

Approved Handlers	:	Not Required
Location Certificate	:	Not Required
Tracking	:	Not a tracked substance
Signage	:	1000kg (8.1A, 8.2C, 9.3B)
Emergency Response Plan:		1000kg (6.1D)

Section 16 Other Information

1. HSNO Approved Code of Practice: Preparation of Safety Data Sheets, September 2006.

Disclaimer

This document has been compiled by TCC (NZ) Ltd on behalf of the manufacturer / distributor of the product and serves as the manufacturer's Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd by the manufacturer / distributor obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer / distributor. While TCC (NZ) Ltd has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact the New Zealand proprietor, Jac Jay Ltd, (09) 571 0023, if further information is required.

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