Jac Jay Ltd

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**OXALIC ACID**
Item Code:	
Product Use:	Textile cleaning, flameproofing, rust removal, metal and equipment cleaning, anti-corrosion coating, chemical intermediate and catalyst.
Restriction of Use:	Refer to Section 15
New Zealand Supplier:	Jac Jay Ltd
Address:	25 Walls Road Penrose, Auckland
Telephone:	+64 9 571 0023
Fax Number:	+64 9 571 0022
Emergency Telephone:	**0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	23 February 2015

Section 2. Hazards Identification

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

EPA Approval No: HSR002710

Pictograms

Toxic Chronic Corrosive Ecotoxic

Signal Word: DANGER

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Category 4
6.1D (dermal)	H312	Harmful in contact with skin.	Category 4
6.1D (inhalation)	H332	Harmful if inhaled.	Category 4
6.8C	H362	May cause harm to breast-fed children.	Effects on or via lactation
6.9B	H371	May cause damage to organs	Category 2
8.1A	H290	May be corrosive to metals.	Category 1
8.2C	H314	Causes severe skin burns and eye damage.	Category 1C
8.3A	H318	Causes serious eye damage.	Category 1
9.3B	H432	Toxic to terrestrial vertebrates.	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P234	Keep only in original container.
P260	Do not breathe fumes, mist, vapours or spray.
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 clothing.

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.
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.
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.
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 — Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.

If on Skin — Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation occurs: get medical advice/attention.

If Swallowed — IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower

than the hips to prevent vomit entering the lungs. Immediately call a POISON CENTER or doctor/physician.

If Inhaled — Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Section 5. Fire Fighting Measures

Hazard Type	Combustible solid
Hazards from decompositi	Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide, carbon dioxide and formic acid.
Suitable Extinguishing	Use water fog, foam or dry agent
Precautions for firefighters and special protective	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
HAZCHEM CODE	**2RE**

Section 6. Accidental Release Measures

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.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Keep only in original container.
- Do not breathe fumes, mist, vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective clothing.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store locked up.
- Store in a well-ventilated place. Keep cool.
- Store in corrosive resistant container with a resistant inner liner.
- 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)

		TWA		STEL	
Substance	**Cas No**	**ppm**	**mg/m³**	**ppm**	**mg/m³**

Oxalic acid	144-62-7	1mg/m^3	2mg/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 Protection Equipment

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

Section 9 Physical and Chemical Properties

Appearance	Transparent crystals
Odour	Odourless
Odour Threshold	Not applicable
pH	1.3 (0.1M solution in water)
Boiling Point	149^{0}C – 160^{0}C (dihydrate)
Melting Point	187^{0}C
Freezing Point	Not applicable
Flash Point	Not applicable
Flammability	Not applicable
Upper and Lower Exposure Limits	Not applicable
Vapour Pressure	< 0.14 Pa @ 20^{0}C

Vapour Density	Not applicable
Relative Density	1.65 @ 25^0C (water = 1)
Solubilities	Soluble in water, alcohol, glycerol, partially soluble in ether
Partition Coefficient:	Not applicable
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not applicable
Viscosity	Not applicable
Particle Characteristics	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	Normally stable. If heated to melting point, sublimation and decomposition occurs.
Conditions to Avoid	Excessive temperatures, moist or damp environments, dust.
Incompatible Materials	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 Effects:

Swallowed	Harmful if swallowed. LD_{50} Male Rat (oral): 475 mg / kg LD_{50} Female Rat (oral): 375 mg / kg
Dermal	Harmful in contact with skin.
Inhalation	Harmful if inhaled.
Eye	Causes serious eye damage.
Skin	Causes severe skin burns and eye damage.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	May cause harm to breast-fed children.
Aspiration	Not applicable.
STOT/SE	May cause damage to organs.
STOT/RE	Not applicable.

Section 12. Ecotoxicological Information

HSNO Classes: 9.3B = Toxic to terrestrial vertebrates.

Ingredient Rat LD_{50}(mg/kg) = Oxalic Acid 375 mg/kg

Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

Do not allow to enter drains or watercourses.

Section 13. Disposal Considerations

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

Precautions: Do not allow to enter drains or watercourses.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

Road and Rail Transport

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

Air Transport

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

Marine 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 Classification: 6.1D(oral,dermal,inh), 6.8C, 6.9B, 8.1A, 8.2C, 8.3A, 9.3B

HSNO Controls:
Trigger quantities for this substance:

	Trigger Quantity
Approved Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L (8.1A, 8.2C, 8.3A, 9.3B)
Emergency Response Plan	1000L (6.1D)
Secondary Containment	1000L (6.1D)
Restriction of Use	No person may use this substance as a pesticide, or veterinary medicine; however, this substance may be used in the formulation of a pesticide or veterinary medicine.

Section 16 Other Information

Glossary

EC_{50}	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC_{50}	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD_{50}	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

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

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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