

## SAFETY DATA SHEET

### 1. Product and Company Identification

**Company Name:** Sierra Aust Pty Ltd  
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Queensland 4034  
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**Emergency Contact:** Sierra (07) 3216 5099 Poisons Information Centre 13 11 26

Ph (07) 3216 5099  
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**Product Name:** Rail Dust Remover / Fall out Remover  
**Product Code:** 9301  
**Intended Use:** Removal of heavy metal deposits  
**Chemical Nature:** Substance – solid (crystals)

### 2. Hazards Identification

**Hazardous Chemical** according to classification by Safe Work Australia  
**Non Dangerous Goods** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail

**GHS Classification:** Acute Toxicity - Oral, Category 4  
Acute Toxicity – Dermal, Category 4



**GHS Signal Word:** **WARNING**

**Hazard Statement(s):**  
H302 Harmful if swallowed  
H312 Harmful in contact with skin

#### Precautionary Statement(s):

#### General:

P101 If medical advice is needed, have product container or label at hand  
P102 Keep out of reach of children  
P103 Read label before use

#### Prevention:

P264 Wash thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

#### Response:

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
P302+P352 IF ON SKIN: Wash with plenty of soap and water  
P312 Call a POISON CENTER or doctor/physician if you feel unwell

#### Storage:

P405 Store locked up.  
P406 Store in corrosive resistant container with a resistant inner liner.

#### Disposal:

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

### 3. Composition / Information on Ingredients

#### Ingredients Names and Proportions

Chemical Entity	Cas Number	Proportion(%)
Ethanedioic Acid	144-62-7	99
Ingredients not classified as hazardous		1

**4. First aid Measures**

**Description of necessary measures according to routes of exposure**

<b>Swallowed</b>	Rinse mouth with water. Give plenty of water to drink provided victim is conscious. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Seek medical attention.
<b>Eye</b>	Rinse eyes immediately with plenty of water for at least 15 minutes and seek medical advice.
<b>Skin</b>	Carefully and gently brush the contaminated body surfaces in order to remove all traces of product for at least 15 minutes. Wash affected area immediately with plenty of water. Remove contaminated clothing. If necessary, seek medical advice.
<b>Inhaled</b>	Remove victim from exposure to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of patient.
<b>Medical Conditions Aggravated by Exposure</b>	No information available on medical conditions aggravated by exposure to this product. Most important symptoms and effects, both acute and delayed: Prolonged or repeated skin contact may cause dermatitis. If inhaled can cause a burning sensation of the nose and throat, coughing, shortness of breath, sore throat, symptoms of immediate effects.

**5. Fire Fighting Measures**

<b>General Measures personnel. Stay</b>	Avoid open flame. Avoid contact with oxidising materials. Clear fire area of all non-emergency upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
<b>Flammability Conditions</b>	Product is a non-flammable solid.
<b>Extinguishing Media that are appropriate to</b>	In case of fire, use water spray, powder, foam, or carbon dioxide. Use extinguishing measures local circumstances and the surrounding environment.
<b>Fire and Explosion Hazard</b>	Product is a non-flammable solid.
<b>Hazardous Products of Combustion</b>	In case of fire, toxic fumes of carbon monoxide and carbon dioxide may be formed.
<b>Special Fire Fighting Instructions</b>	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
<b>Personal Protective Equipment protective fire fighting</b>	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and clothing (includes fire fighting helmet, coat, trousers, boots and gloves).
<b>Flash Point</b>	No Data Available
<b>Lower Explosion Limit</b>	Not explosive (void of any chemical structures com
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No relative self ignition temperature below 400 degrees

**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.

<b>Clean Up Procedures with</b>	Collect up dry and deposit in waste containers for later disposal according to regulations. Wipe off with water. (Extra personal protection: P2 filter respirator for harmful particles).
<b>Containment</b>	Stop leak if safe to do so. Isolate the danger area.
<b>Decontamination</b>	Wipe off with water.
<b>Environmental Precautionary Measures watercourses</b>	Contain the spillage. Keep the material dry if possible. Cover area if possible to avoid unnecessary dust hazard. Avoid uncontrolled spills to watercourses and drains. Any large spillage into must be alerted to the Environment Agency or other regulatory body.
<b>Evacuation Criteria</b>	Evacuate all unnecessary personnel.

**Personal Precautionary Measures Personnel involved in the clean up should wear full protective clothing as listed in section 8.**

**7. Handling and Storage**

Handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes. Wear protective equipment (refer to section 8). Do NOT wear contact lenses when handling this product. Keep dust levels to a minimum. Enclose dust sources, use exhaust ventilation.
Storage	The substance should be stored under dry conditions. Keep containers tightly closed at Room temperature. Keep separated from strong bases, oxidizing materials, food and feed. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
Container	Store in original packaging as approved by manufacturer.

**8. Exposure Controls and Personal Protection**

<b>General</b>	<p>No exposure standard has been established for this product by the The Safe Work Australia (SWA). However, the exposure standard for dust not otherwise specified is 10 mg/m<sup>3</sup> (for inspirable dust) and 3 mg/m<sup>3</sup> (for respirable dust). Please also note the following:                  OEL (TWA): 1 mg/m<sup>3</sup> (ACGIH 1990-1991)                  OEL (como STEL): 2 mg/m<sup>3</sup> (ACGIH 1990-1991)                  DNEL for Workers:                  Local effects - acute: DNEL (derived not effect level) dermal: 0.69 mg/cm<sup>2</sup>                  Systemic effects - long term: DNEL (derived not effect level) dermal: 2.29 mg/Kg bw/day                  Systemic effects - long term: DNEL (derived not effect level) inhalation: 4.03 mg/m<sup>3</sup>                  DNEL for General Population:                  Local effects - acute: DNEL (derived not effect level) dermal: 0.35 mg/cm<sup>2</sup>                  Systemic effects - long term: DNEL (derived not effect level) dermal: 1.14 mg/Kg bw/day                  Systemic effects - long term: DNEL (derived not effect level) oral: 1.14 mg/m<sup>3</sup>                  PNEC water (freshwater): 0.1622 mg/L                  PNEC water (sea water): 0.01622                  PNEC water (intermittent spills): 1622 mg/L</p> <p>NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.                  These 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 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.</p>
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available on biological limit values for this product.
<b>Engineering Measures</b>	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
<b>Personal Protection Equipment</b>	<p>RESPIRATOR: Wear a suitable particle filter mask (P2 filter respirator for harmful particles) (AS1715/1716).                  EYES: Do NOT wear contact lenses. Tightly fitting goggles with side shields, or wide vision full goggles (AS1336/1337).                  HANDS: Wear suitable gloves (nitrile, neoprene, natural rubber, polyvinyl) (AS2161).                  CLOTHING: Long-sleeved standard work clothing, long pants, and safety footwear (resistant to corrosive chemicals and which prevent penetration of dust) (AS3765/2210).</p>
<b>Special Hazards Precautions</b>	The substance does not represent a thermal hazard, thus special consideration is not required.
<b>Work Hygienic Practices</b>	No Data Available

**9. Physical and Chemical Properties**

Appearance:	Solid (crystals)
Odour:	odourless
pH:	~0.7 50g/L (approx.)
Melting point/freezing point (°C):	Not applicable
Initial boiling point and boiling range (°C):	Not applicable

Flash point (°C):	Data not available
Evaporation rate (Butyl acetate = 1):	Data not available
Flammability:	Non-combustible
Upper/lower flammability or explosive limits (%):	Data not available
Vapour pressure:	0.0312 Pa (@25°C)
Vapour density (air = 1, @ 20°C):	Data not available
Density (g/ml):	0.813 (study result, EU A.3 method) Relative
Solubility:	108 g/L 25°C
Partition coefficient:	-1.7(23°C) (study result, OECD Guideline 107)
Auto-ignition temperature (°C):	Data not available
Decomposition temperature (°C):	Data not available
Kinematic viscosity (mm <sup>2</sup> /s @ 20°C):	Data not available

## 10. Stability and Reactivity

General Information	On contact with hot surfaces or flames this substance decomposes forming formic acid and carbon monoxide. The solution in water is a medium strong acid.
Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	Minimise exposure to air and moisture to avoid degradation.
Materials to Avoid	Alkaline solutions, ammonia, halogenates, oxidising agents, metals, water, heat.
Hazardous Decomposition Products	Hazardous decomposition products may include carbon monoxide, carbon dioxide, and formic acid.
Hazardous Polymerisation	Reacts violently with strong oxidants causing fire and explosion hazard. Reacts with some silver compounds to form explosive silver oxalate. Attacks some forms of plastic.

## 11. Toxicological Information

General Information	<p>Oxalic acid is classified as harmful by oral and dermal route and it entails a risk of serious damage to the eye. Toxicity endpoints and outcome of the effects assessment:  Absorption: The primary health effect of oxalic acid is local irritation due to a pH shift. Therefore, absorption is not a relevant parameter for the effects assessment.  Acute Toxicity: Oxalic acid Oral and Dermal Actutely toxic cat. 4</p> <p>Oral LD50 Rat: &gt;375 mg/Kg bw (according to the method of Smyth)  Dermal LD50 Rabbit: &gt;20000 mg/Kg bw (Pesticide Action Network, North America)  Repeated Dose Toxicity:  Toxicity of Oxalic acid via the oral route is addressed by LOAEL of 150 mg/Kg bw/day.  Toxicity of Oxalic acid via the dermal route is not considered as relevant in the view of the anticipated insignificant absorption through the skin.  Toxicity of Oxalic acid via inhalation is not considered as relevant.  Therefore, classification of Oxalic acid for toxicity upon prolonged exposure is not required.</p> <p>Mutagenicity:  Bacterial reverse mutation assay (Ames test, OECD 471): Negative.  Mammalian chromosome aberration test: Negative.  Oxalic acid is void of any genotoxic potential.  Classification for genotoxicity is not warranted.</p> <p>Carcinogenicity:  Oxalic acid is not considered as carcinogenic.  Human epidemiological data support lack of any carcinogenic potential of oxalic acid  Classification for carcinogenicity is not warranted.</p> <p>Toxicity for Reproduction:  Oxalic acid is not toxic to reproduction (experimental result, mouse)  Human epidemiological data support lack of an potential for reproductive toxicity of oxalic acid.</p>
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	Classification for reproductive toxicity according to regulation (EC) 1272/2008 is not required.
Eye Irritant	Oxalic acid entails a risk of serious damage to the eye (OECD 405, Rabbit). Based on experimental results, oxalic acid requires classification as severely irritating to the eye [R41, Risk of serious damage to eye; Eye Damage 1 (H318 - Causes serious eye damage)].
Ingestion	Harmful if swallowed.
Skin Irritant	Harmful in contact with skin. Oxalic acid is not irritating to skin (OECD 404, Rabbit)
Carcinogen Category	No Data Available

## 12. Ecological Information

Ecotoxicity	<p>Acute/Prolonged toxicity to fish: LC50 (96hr) for freshwater fish: 160 mg/L (Deutsche Einheitsverfahren zur Wasser, Abwasser und Schlamm-Untersuchung)</p> <p>Acute/Prolonged toxicity to aquatic invertebrates: EC50 (48hr) for freshwater invertebrates: 162.2 mg/L (OECD 202, Daphnia)</p> <p>Acute/Prolonged toxicity to aquatic plants: Toxicity threshold (8 days) for freshwater algae: 80.0 mg/L</p> <p>Chronic Toxicity to aquatic organisms: The long term aquatic toxicity study on aquatic invertebrates shall be considered if the substance is poorly water soluble and oxalic acid is soluble in water. Also oxalic acid presents a low toxicity for the short term test.</p> <p>Toxicity to soil dwelling organisms: The oxalic acid is not supposed to be directly applied to the soil and an indirect exposure to soil via sewage sludge transfer is unlikely since the substance is readily biodegradable. As oxalic acid is considered as "readily biodegradable", it can be assumed that it will be biodegraded within the STP process and as a consequence a transfer to the soil compartment is not expected. Therefore, no tests on terrestrial organisms are provided.</p> <p>Toxicity to terrestrial plants: EC50 (72hr for terrestrial plants: 8 mM)</p> <p>General Effect: Oxalic acid has a low logKow and is readily biodegradable. The substance cannot be classified as hazardous for the environment.</p>
Persistence/Degradability	Oxalic acid is readily biodegradable, meeting the 10 day window. The biodegradation in seawater occurs at the same rate. Also the anaerobic biodegradation occurs rapidly.
Mobility	Transport through the medium is rate-limiting. Degradation after 30 days at 20 deg C is up to 73% (based on CO2 evolution). Oxalic acid is easily biodegradable in soil.
Environmental Fate	Do NOT let product reach waterways, drains and sewers. Results of PBT and vPvB assessment: The hazard assessment of oxalic acid reveals neither a need to classify the substance as dangerous to the environment, nor is it a PBT or vPvB substance, nor are there any further indications that the substance may be hazardous to the environment.
Bioaccumulation	Not relevant for oxalic acid because this substance is readily biodegradable and highly soluble in water, and logKow is negative.

## 13 Disposal Considerations

<b>General Information</b>	Disposal of oxalic acid should be in accordance with local and national legislation. Processing, use or contamination of this product may change the waste management options. Must not be disposed together with household garbage. Do not allow product to reach sewage system. Dispose of container and unused contents in accordance with federal, state and local requirements. The used packing is only meant for packing this product. After usage, empty the packing completely
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### Special Precautions for Landfill

Contact a specialist disposal company or the local waste regulator for advice. Must not be disposed of together with household garbage. Do NOT allow product to reach sewage system. The used packing is only meant for packing this product. After usage, empty the packing completely.

**14. Transport Information**

**Not Classified as Dangerous Goods according to the ADG Code for Transport by Road and Rail**  
**Not Classified as Dangerous Goods according to IMDG for Transport by Sea**  
**Not Classified as Dangerous Goods according to IATA for Transport by Air**

Proper Shipping Name: Oxalic Acid Dihydrate

**15. Regulatory Information**

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poisons Schedule:	6
Australian Inventory of Chemical Substances (AICS):	Listed

**16. Other Information**

**This SDS contains only safety related information. For other information see product literature.**

Every endeavor has been made to ensure that the information contained in this publication is reliable and offered in good faith. It is meant to describe the safety requirements of our products and should not be construed as guaranteeing specific properties. Customers are encouraged to conduct their own tests as end user suitability of the product for particular uses is beyond our control. The information is not intended as an inducement to bargain and no warranty expressed or implied is made as to its accuracy, reliability or completeness. Sierra (Aust) Pty Ltd accepts no liability for loss, injury or damage arising from reliance upon the information contained in this data sheet except in conjunction with the proper use of the product to which it refers. Due care should be taken that the use and disposal of this product is in compliance with appropriate Federal, State and Local Government regulations.