

## Safety Data Sheet

### 1. IDENTIFICATION OF THE PRODUCT AND THE SUPPLIER

#### 1.1 Product identifiers

Product name : OXALIC ACID DIHYDRATE

#### 1.2 Other means of identification

Ethanedioic Acid, dihydrate; Oxalic Acid, dihydrate.

#### 1.3 Recommended use of the product and restrictions on use

Laboratory chemicals, Manufacture of substances

#### 1.4 Details of supplier of the safety data sheet

Company : AGent Sales & Services Pty Ltd

Street address : 38 May Holman Drive, Bassendean, Western Australia 6054

Telephone : (+61 8) 6270 4500

Fax : (+61 8) 6270 4544

#### 1.5 Emergency telephone number

Telephone : (+61 8) 6270 4500

### 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.

#### 2.1 GHS Classification

Acute toxicity, oral (Category 4)

Acute toxicity, dermal (Category 4)

#### 2.2 GHS Label elements, including precautionary statements

##### Pictogram



**Signal word** WARNING

##### Hazard statement(s)

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

##### Precautionary statement(s)

##### Prevention

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

##### Response

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

P302 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P362 Take of contaminated clothing and wash before re-use.

P312

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

**Disposal**

P501

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

**Other hazards**

None.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Classification	Concentration (%)
Oxalic Acid Dihydrate	6153-56-6	Acute Tox. 4; H302; H312	> 99

For the full text of the H-Statements mentioned in this section, see Section 16

### 4. FIRST AID MEASURES

#### 4.1 Description of First Aid measures

**General advice**

Contact the Poisons Information Centre (Phone: Australia 131 126; New Zealand 0800 764 766) or consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

Remove victim from exposure to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.

**In case of skin contact**

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.

**In case of eye contact**

Rinse eyes immediately with plenty of water for at least 15 minutes and seek medical advice.

**If swallowed**

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.

#### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in Section 2.2 and/or Section 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### 4.4 First Aid facilities

Eye wash facilities and safety shower should be available.

### 5. FIRE FIGHTING MEASURES

#### 5.1 Suitable extinguishing media

Water spray, powder, foam, or carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### 5.2 Special hazards arising from the chemical

Product is a non-flammable solid.

#### 5.3 Special protective equipment and precautions for fire fighters

Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition. Do not allow fire-fighting water to reach waterways, drains or sewers. Store fire-fighting water for treatment.

#### 5.4 Hazchem code

None allocated

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

## 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. If contamination of sewers or waterways has occurred, advise local emergency services. Observe all local and national regulations.

## 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

# 7. HANDLING AND STORAGE

## 7.1 Precautions for safe 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.

## 7.2 Conditions for safe storage, including any incompatibilities

The substance should be stored under dry conditions. Recipients tightly closed at Room temperature. 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.

# 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

## 8.1 Control parameters

Not value assigned for this specific material by 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

### Biological Limits

None allocated for this product.

## 8.2 Exposure controls

### Appropriate engineering controls

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.

### 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.

### Eye/face protection

Tightly fitting goggles with side shields, or wide vision full goggles (AS1336/1337)..

### Skin protection

Wear suitable nitrile, neoprene, polyvinyl gloves and long-sleeved standard work clothing, long pants and safety footwear protective clothing (splash apron or equivalent chemical impervious outer garment and rubber boots) appropriate for the risk of exposure. See Australian Standards (AS3765 and AS/NZS 2210).

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands.

#### **Respiratory protection**

Where risk assessment shows inhalation risk exists, wear an approved P1 or P2 particulate filter respirator. See Australian Standards (AS/NZS 1715 & 1716). Use dust mask as a minimum.

### **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Form : Solid Colour : Uncoloured crystals or white powder
<b>Odour:</b>	Odourless
<b>Odour Threshold:</b>	No data available
<b>pH:</b>	approx. 0.7 @ 50g/L
<b>Melting Point (°C):</b>	104 – 106°C
<b>Boiling Point/Range (°C):</b>	No data available
<b>Decomposition Temperature:</b>	> 160°C
<b>Evaporation Rate:</b>	No data available
<b>Flash Point:</b>	Not applicable
<b>Flammability Limits:</b>	Not applicable
<b>Density:</b>	0.813 EU A.3 method
<b>Vapour Density (air=1):</b>	No data available
<b>Vapour Pressure:</b>	No data available
<b>% Volatiles:</b>	No data available
<b>Solubility in water:</b>	108 g/L @ 25°C

### **10. STABILITY AND REACTIVITY**

#### **10.1 Reactivity**

No data available.

#### **10.2 Chemical stability**

Product is stable under normal conditions of use, storage and temperature

#### **10.3 Possibility of hazardous reactions**

Polymerisation is not expected to occur.

#### **10.4 Conditions to avoid**

Avoid moisture

#### **10.5 Incompatible materials**

Incompatible with bases, metals, acid chlorides, alkali metals, oxidising agents, ammonia.

#### **10.6 Hazardous decomposition products**

Oxides of carbon and formic acid

### **11. TOXICOLOGICAL INFORMATION**

#### **11.1 Information on toxicological effects**

##### **Acute toxicity**

LD<sub>50</sub> Oral (rat): 1,080 mg/kg

##### **Skin corrosion / irritation**

Skin: Rabbit

Result: Mild skin irritation

##### **Serious eye damage / eye irritation**

Eyes: Rabbit

Result: Risk of serious damage to eyes (OECD Test Guideline 405)

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

Result: Not mutagenic in Ames Test  
Histidine reversion (Ames)

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductivity toxicity**

Possible risk of congenital malformation in the foetus

**Specific target organ toxicity – single exposure**

No data available

**Specific target organ toxicity – repeated exposure**

No data available

**Aspiration hazard**

No data available

**Health Effects**

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 include burning sensation, coughing, wheezing, laryngitis, shortness of breath, spasm, inflammation and oedema of the larynx, spasm, inflammation and oedema of the bronchi, pneumonitis, pulmonary oedema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

**11.2 Information on possible routes of exposure**

The substance can be absorbed into the body by ingestion, inhalation, eye contact and skin contact.

**11.3 Additional Information**

RTECS: Not available

**12. ECOLOGICAL INFORMATION****12.1 Ecotoxicity**

Avoid contaminating waterways.

**Toxicity to fish:**

LC<sub>50</sub> Leuciscus idus (Golden orfe): 160 mg/L - 48 h

**Toxicity to daphnia & other aquatic invertebrates:**

EC<sub>50</sub> Daphnia magna (Water flea): 137 mg/L - 48 h

**12.2 Persistence and degradability**

Biodegradable.

**12.3 Bioaccumulative potential**

No data available.

**12.4 Mobility in soil**

Transport through the medium is rate-limiting. Degradation after 30 days at 20 °C is up to 73% (based on CO<sub>2</sub> evolution). Oxalic acid is easily biodegradable in soil.

**12.5 Other adverse effects**

No data available.

**13. DISPOSAL CONSIDERATIONS****13.1 Disposal methods and containers**

Ensure waste disposal conforms to relevant local, state and federal authority waste disposal regulations. Dispose of contaminated packaging as for unused product.

**14. TRANSPORT INFORMATION**

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.

Not classified as a Dangerous Goods by the criteria of the IMDG Code for transport by sea

Not classified as a Dangerous Goods by the criteria of the IATA Code for transport by air

<b>14.1 UN number</b>	None allocated
<b>14.2 Proper shipping name</b>	CITRIC ACID DIHYDRATE
<b>14.3 Transport hazard class</b>	None allocated
<b>14.4 Packing group</b>	None allocated
<b>14.5 Environmental hazards</b>	No
<b>14.6 Special precautions for users</b>	None allocated
<b>14.7 Hazchem code</b>	None allocated
<b>14.8 Dangerous goods initial emergency response guide (SAA/SNZ HB76:2010)</b>	None allocated

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations

**Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)**  
Schedule 6

**Carcinogen classification under WHS Regulations 2011, Schedule 10**  
Not listed

**Notification status**

**AICS** On the inventory or in compliance with the inventory.

## SECTION 16 OTHER INFORMATION

### Key / legend to abbreviations and acronyms used in the MSDS

ADG	Australian Dangerous Goods
ASCC	Australian Safety and Compensation Council
DEC	Department of Environment and Conservation
GHS	Globally Harmonised System of Classification & Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
NOHSC	National Occupational Health and Safety Commission
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
RTECS	Registry of Toxic Effects of Chemical Substances.
SWA	Safe Work Australia
Acute Tox	Acute toxicity
H302	Harmful if swallowed
H312	Harmful in contact with skin
pH	Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline

### Full text of H-Statements referred to under sections 2 and 3.

H319 Causes serious eye irritation.

### Literature references

"Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA Work Health and Safety Regulations 2011

"Registry of Toxic Effects of Chemical Substances". Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2012.

### Reason(s) for Issue:

Revised primary SDS

Alignment to GHS requirements

### Disclaimer

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