1. Identification

GHS Product Identifier: AMMONIUM OXALATE Monohydrate

Company Name: CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

Address: 38 - 50 Bedford Street GILLMAN
SA 5013 Australia

Telephone/Fax Number: Tel: (08) 8440-2000
Fax: (08) 8440-2001

(24 hour a day available)

Recommended use of the chemical and restrictions on use

Name: AMMONIUM OXALATE Monohydrate AR

Product Code: AA011

Other Information: Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture:
Acute Toxicity - Dermal: Category 4
Acute Toxicity - Oral: Category 4
Eye Damage/Irritation: Category 1
Skin Corrosion/Irritation: Category 2
Specific Target Organ Toxicity: Category 3 (respiratory tract irritation)
Specific Target Organ Toxicity: Repeated Exposure Category 2

Signal Word (s): DANGER

Hazard Statement (s):
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H373 May cause damage to organs kidneys through prolonged or repeated exposure.

Pictogram (s):
Exclamation mark, Corrosion, Health hazard

Precautionary statement – Prevention:
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response:
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P312 IF ON SKIN: Wash with plenty of soap and water.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P362 Take off contaminated clothing and wash before reuse.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
AMMONIUM OXALATE Monohydrate

Classified as hazardous

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.
P314 Get medical advice/attention if you feel unwell.
P403+P233 Immediately call a POISON CENTER or doctor/physician.
P405 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical Characterization</th>
<th>Name</th>
<th>CAS</th>
<th>Proportion</th>
<th>Hazard Symbol</th>
<th>Risk Phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemicals</td>
<td>Ammonium oxalate monohydrate</td>
<td>6009-70-7</td>
<td>100 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. First-aid measures

Inhalation: If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately medical attention is required.

Ingestion: Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Skin: Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice/attention depending on the severity.

Eye contact: If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention.

First Aid Facilities: Maintain eyewash fountain and drench facilities in work area.

Advice to Doctor: Treat symptomatically based on judgement of doctor and individual reactions of the patient.

Other Information: For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Suitable extinguishing media: Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Hazards from Combustion Products: Nitrogen and carbon oxides.

Specific hazards arising from the chemical: May burn but do not ignite readily.

Hazchem Code: 2X

6. Accidental release measures

Personal Precautions: Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

Personal Protection: Wear protective clothing specified for normal operations (see Section 8)

Clean-up Methods - Small Spillages - Environmental Precautions: Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.

Prevent contamination of soil and water.

7. Handling and storage

Conditions for safe storage, including any incompatibilities: Store in a cool, dry place. Store away from foodstuffs. Keep containers closed at all times.

Storage Regulations: Refer Australian Standard AS 4452 - 1997 'The storage and handling of toxic substances'.
8. Exposure controls/personal protection

Other Exposure Information

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. No exposure standard has been established for ammonium oxalate monohydrate but there is an exposure standard for oxalic acid. A time weighted average (TWA) has been established for Oxalic acid (Safe Work Australia) of 1 mg/m³. The corresponding STEL level is 2 mg/m³. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. 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.

Appropriate engineering controls

In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. These methods should be used in preference to personal protective equipment.

Respiratory Protection

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

Eye Protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate.

Hand Protection

Hand protection should comply with AS 2161 Industrial Safety Gloves and Mittens (Excluding Electrical and Medical Gloves).

Personal Protective Equipment

Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.

Body Protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hygiene Measures

Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material.

9. Physical and chemical properties

Form

Solid

Appearance

Colourless crystals.

Solubility in Water

45 g/L at 20 °C

Specific Gravity

1.50

Partition Coefficient: log Pow: -2.3

n-octanol/water

Molecular Weight

142.11

Other Information

Decomposes by heat.

10. Stability and reactivity

Chemical Stability

Stable under normal use conditions.

Conditions to Avoid

Strong heating.

Incompatible Materials

Sodium hypochlorite and ammonium acetate. Strong oxidising agents. Strong acids.

Hazardous Decomposition Products

Carbon dioxide, carbon monoxide, ammonia and oxides of nitrogen.

11. Toxicological Information

Ingestion

Harmful if swallowed. Has caustic effect on the mouth, oesophagus and stomach. May cause severe damage to the kidneys. Symptoms may include vomiting, burning and abdominal pain, followed by muscular tremors, convulsions, weak pulse and collapse. Death may occur.
AMMONIUM OXALATE Monohydrate

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Inhalation
Chief effects may be irritation of the upper respiratory tract, ulceration of the mucous membranes of the nose and throat, epistaxis, headache, irritation and nervousness. More severe cases may show albuminuria, chronic cough, vomiting, pain in the back and gradual emaciation and weakness.

Skin
Harmful in contact with the skin. Corrosive to tissue and may produce local irritation.

Eye
Causes serious eye damage.

Carcinogenicity
No evidence of carcinogenic properties.

STOT-single exposure
May cause respiratory irritation.

STOT-repeated exposure
May cause damage to kidneys through prolonged or repeated exposure.

12. Ecological information
Bioaccumulative Potential
Not expected log Pow: -2.3.

Other Information
Do not allow to enter drinking water supplies, waste water or soil!

13. Disposal considerations
Disposal Considerations
Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of according to relevant local, state and federal government regulations.

14. Transport information
Transport Information
Dangerous Goods of Class 6 (Toxic and Infectious Substances) are incompatible in a placard load with any of the following: Class 1, Class 3, if the Class 3 dangerous goods are nitromethane, Class 8, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids; and are incompatible with food and food packaging in any quantity.

U.N. Number
2811

UN proper shipping name
TOXIC SOLID, ORGANIC, N.O.S.

Transport hazard class(es)
6.1

Hazchem Code
2X

Packaging Method
3.8.6.1

Packing Group
III

EPG Number
6B5

IERG Number
36

15. Regulatory information
Regulatory Information
Listed in the Australian Inventory of Chemical Substances (AICS).

Poisons Schedule
S6

16. Other Information
Date of preparation or last revision of SDS
19/10/2018

Literature References
'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia.
Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011.
Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.
Safe Work Australia, 'Hazardous Substances Information System, 2005'.

Print Date: 19/10/2018
Product Name: AMMONIUM OXALATE Monohydrate

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Contact Person/Point

Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.

Paul McCarthy Ph. (08) 8440 2000

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Empirical Formula & Structural Formula
(\(\text{COONH}_4\))\(_2\). \(\text{H}_2\text{O}\)

...End Of MSDS...