

AQUA HARD G

ChemWatch Material Safety Data Sheet (REVIEW)
CHEMWATCH 20922
Date of Issue: Wed 17-Oct-2001

IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS ACCORDING TO WORKSAFE AUSTRALIA CRITERIA.
CONSIDERED A DANGEROUS SUBSTANCE ACCORDING TO
DIRECTIVE 67/548/EEC, POINT 4; AND TO 29 CFP 1910-1200 (USA).

SUPPLIER

| | |
|---------------------|------------------------------------|
| Company | Andrew Limited |
| Address | 3 Porana Road, Glenfield, AUCKLAND |
| Telephone | 0800 429 628 or 09 444 0935 |
| Emergency Telephone | 0800 243 622 |
| Fax | 0800 731 770 |
| Website | www.andrew.co.nz |

CHEMWATCH HAZARD RATINGS

| | |
|--------------|---|
| Flammability | 0 |
| Toxicity | 2 |
| Body Contact | 2 |
| Reactivity | 0 |
| Chronic | 0 |

SCALE Min/Nil =0 Low =1 Moderate=2 High=3 Extreme=4

PERSONAL PROTECTION EQUIPMENT FOR INDUSTRIAL / COMMERCIAL ENVIRONMENTS

Short Gloves
Dust Mask
Goggles
Overalls

| | |
|-------------------------|------------------|
| Product Name | Calcium Chloride |
| Other Names | |
| CAS RN No (s) | 10043-52-4 |
| UN Number | None |
| Packing Group | None |
| Dangerous Goods Class | None |
| Subsidiary Risk | None |
| Hazchem Code | None |
| Posions Schedule Number | None |

USE

Used as a drying, dehydrating, desiccating agent for organic liquids, gases. Obsolescent use as refrigerant brine. Dust control for roads. De-icing fluid, freeze proofing and thawing coal, coke, stone, sand, ore. Sizing and finishing cotton fabrics; used in the paper and pulp industry. In the manufacture of fungicides.

Conditioning treatment for concrete. Food Additive 509. Sequestrant in foods, firming agent in tomato canning. Anhydrous form must NOT be used as Calcium Chloride Injection, Calcium ion.

PHYSICAL DESCRIPTION / PROPERTIES



APPEARANCE

Small white crystals, granules, or flakes. No odour. Soluble in water. Solution in water accompanied by evolution of heat. Soluble in alcohol. Material is hygroscopic, absorbs moisture from surrounding air.

| | |
|---------------------------|-----------------|
| Boiling Point | >1600 |
| Melting Point | 772 |
| Vapour Pressure (kPa) | Negligible |
| Specific Gravity | 2.15 |
| Flash Point (deg C) | 27Non flammable |
| Lower Explosive Limit (%) | Not applicable |
| Upper Explosive Limit (%) | Not applicable |
| Solubility in Water (g/L) | Miscible |

INGREDIENTS

| NAME | CAS RN | % |
|---|------------|-----|
| Calcium Chloride | 10043-52-4 | >85 |
| commercial materials may contain up to 3% sodium chloride | | |

HEALTH HAZARD



ACUTE HEALTH EFFECTS

SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments Small amounts or low dose rates are regarded as practically non-harmful. Use as a food additive indicates tolerance of small amounts, but irritant properties and toxic effects of large amounts are well documented. Estimated lethal dose for adult is 30 grams. The material is highly discomforting and may be corrosive if swallowed. Ingestion may result in nausea, abdominal irritation, pain and vomiting.

EYE

The dust may be highly discomforting to the eyes and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

The material is moderately discomforting to the skin and may cause blisters or burns if exposure is prolonged. Not readily absorbed through the skin. Open cuts, abraded or irritated skin should not be exposed to this material The material may accentuate any pre-existing skin condition. Solution of material in moisture on the skin, or perspiration, may increase irritant effects. If skin is wet or moist with perspiration, superficial burns may result. Contact with abraded skin or cuts may rapidly cause severe skin burns. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to vesiculation, scaling and thickening of the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

INHALED

The dust may be discomforting to the upper respiratory tract if inhaled.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by inhalation of generated dust and skin contact with the material. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

FIRST AID

SWALLOWED

Rinse mouth out with plenty of water.

- 1: DO NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- 2: Observe the patient carefully.
- 3: Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- 4: Give water (or milk) to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- 5: Transport to hospital or doctor without delay.

EYE

If this product comes in contact with the eyes:

- 1: Immediately hold the eyes open and wash continuously for at least 15 minutes with fresh running water.
- 2: Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- 3: Transport to hospital or doctor without delay.
- 4: Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If product comes in contact with the skin:

- 1: Immediately remove all contaminated clothing, including footwear (after rinsing with water).
- 2: Wash affected areas thoroughly with water (and soap if available).
- 3: Seek medical attention in event of irritation.

INHALED

- 1: If fumes or combustion products are inhaled: Remove to fresh air.
- 2: Lay patient down. Keep warm and rested.
- 3: Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures
- 4: If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- 5: Transport to hospital, or doctor.

ADVISE TO THE DOCTOR

Treat symptomatically.

PRECAUTIONS FOR USE



EXPOSURE STANDARDS

Dusts not otherwise classified, as inspirable dust; ES TWA: 10 mg/m³.

ENGINEERING CONTROLS

Use in a well-ventilated area

- 1: Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.
- 2: Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.
- 3: If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered.
Such protection might consist of:
 - (a): particle dust respirators, if necessary, combined with an absorption cartridge;
 - (b): filter respirators with absorption cartridge or canister of the right type;
 - (c): fresh-air hoods or masks
- 3: Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.
- 4: Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.

PERSONAL PROTECTION

EYES

Safety glasses with side shields

Chemical goggles.

Full face shield.

Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

HANDS / FEET

Wear general protective gloves: i.e. Disposable polythene gloves or Cotton gloves or Light weight rubber gloves, with Barrier cream preferably
Safety footwear.

OTHER

1: Overalls.

2: Eyewash unit.

RESPIRATOR

| Protection Factor | Half Face Respirator | Full Face Respirator | Powered Air Respirator |
|-------------------|----------------------|----------------------|------------------------|
| 10 x ES | P1 Air-line* | - - | PAPR-P1 |
| 50 x ES | Air-line** | P2 | PAPR-P2 |
| 100 x ES | - | P3 Air-line* | - |
| 100+ x ES | | Air-line** | PAPR-P3 |

* - Negative pressure demand

** - Continuous flow.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information, consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

SAFE HANDLING



STORAGE AND TRANSPORT

SUITABLE CONTAINER

Multi ply paper bag with sealed plastic liner or heavy gauge plastic bag

NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse.

Check that all containers are clearly labelled and free from leaks

Packing as recommended by manufacturer.

STORAGE INCOMPATIBILITY

Keep dry .

Segregate from strong acids.

DO NOT use aluminium or galvanised containers.

DO NOT USE brass or copper containers / stirrers.

STORAGE REQUIREMENTS

Keep dry

1: Store in original containers.

2: Keep containers securely sealed.

3: Store in a cool, dry, well-ventilated area.

4: Store away from incompatible materials and foodstuff containers.

5: Protect containers against physical damage and check regularly for leaks.

6: Observe manufacturer's storing and handling recommendations.

TRANSPORTATION

No restrictions.

SPILLS AND DISPOSAL

MINOR SPILLS

1: Clean up all spills immediately.

2: Avoid contact with skin and eyes.

3: Wear impervious gloves and safety glasses.

4: Use dry clean up procedures and avoid generating dust.

5: Vacuum up or sweep up.

6: Place spilled material in clean, dry, sealable, labelled container.

MAJOR SPILLS

1: Clear area of personnel and move upwind.

2: Alert Fire Brigade and tell them location and nature of hazard.

3: Wear full body protective clothing with breathing apparatus.

4: Prevent, by any means available, spillage from entering drains or watercourse.

5: Stop leak if safe to do so.

6: Contain spill with sand, earth or vermiculite.

7: Collect recoverable product into labelled containers for recycling.

8: Neutralise/decontaminate residue.

9: Collect solid residues and seal in labelled drums for disposal.

10: Wash area and prevent runoff into drains.

11: After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.

12: If contamination of drains or waterways occurs, advise emergency services.

DISPOSAL

1: Recycle wherever possible or consult manufacturer for recycling options.

2: Consult State Land Waste Management Authority for disposal.

3: Bury residue in an authorised landfill.

4: Recycle containers if possible, or dispose of in an authorised landfill.

FIRE/EXPLOSION HAZARD

1: Non combustible.

2: Not considered to be a significant fire risk, however containers may burn.

Decomposition will occur at high temperatures and may produce fumes of hydrogen chloride.

CONTACT POINT



In the event of a chemical event or a chemical incident phone **0800 243 622** for immediate assistance.

AUSTRALIAN POISONS INFORMATION CENTRE

24 HOUR SERVICE: 13 11 26

POLICE, FIRE BRIGADE OR AMBULANCE: 000

NEW ZEALAND POISONS INFORMATION CENTRE

24 HOUR SERVICE: 0800 POISON or +643 353 0199

NZ EMERGENCY SERVICES: 111

End of Report (REVIEW)

Date of preparation Wed 17-Oct-2001

Print Date Tue 4-Dec-2001

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+613) 9572 4700