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MATERIAL SAFETY DATA SHEET

Hazardous according to criteria of Worksafe Australia

Date of Issue : 1st June 2009

1. IDENTIFICATION

General

Product Name : CALCIUM CHLORIDE

Other Names : CALCIUM DICHLORIDE

UN No. : N/A

Dangerous Goods Class : None Allocated

Subsidiary Risk : None Allocated

Hazchem Code : N/A

Pack Group : 0

EPG : N/A

Poisons Schedule : N/A

Uses :

De-icing; dust control of roads, mines, drilling sites; freezeproofing and thawing coal, coke, stone, sand, ore; concrete conditioner; paper and pulp industry; de-phosphorisation of steel and pig iron; fungicides; drying and dessicating agent; refrigeration brines; sequestrant in foods; firming agent in tomato canning; tyre weighing; pharmaceutical; electrolytic cells.

1.1 Physical Description / Properties

Appearance : White to off white flakes, hygroscopic.

Formula : CaCl2.2H2O

Boiling Point : 1600 deg C

Melting Point : 782 deg C

Vapour Pressure : 0.009 mm Hg (1 atmosphere)

Specific Gravity : 1.86 (water = 1)

Flash Point : N/A

pH : 7-9 ()

Solubility in water : Solub g/l (25 deg C)

Flammability Limits (as percentage volume in air)

Lower Explosion Limit : N/A

Upper Explosion Limit : N/A

1.2 Other Properties

Freely soluble in water (with liberation of much heat), alcohol.

1.3 Ingredients

Chemical Entity	CAS No.	Proportions (%)
CALCIUM CHLORIDE, DIHYDRATE	[10043-52-4]	> 74

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2. HEALTH HAZARD INFORMATION

2.1 Health Effects - Acute

Swallowed

Single dose oral toxicity is low. Ingestion may cause gastrointestinal irritation or ulceration.

Eye

May cause moderate to severe eye irritation with corneal injury, which may be slow to heal. When dissolving, the heat produced may cause more intense effects as well as thermal burns.

Skin

Short single exposure not likely to cause significant skin irritation. Prolonged or repeated exposure may cause skin irritation, even a burn. May cause more severe response if skin is damp and/or abraded, or if material is confined to skin. When dissolving, the heat produced may cause more intense effects as well as thermal burns.

Inhaled

Vapours are unlikely due to physical properties. Dust may cause irritation to upper respiratory tract.

2.2 Health Effects - Chronic

The components of this product are not listed by IARC, NTP or PSHA as a carcinogen for hazard communication purposes. Results of in vitro mutagenicity tests have been negative for calcium chloride.

2.3 First Aid

Swallowed

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Call a physician. Never give anything by mouth or attempt to induce vomiting in an unconscious person. Keep patient warm.

Eye

Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

Skin

Flush affected area with plenty of water. Remove contaminated clothes/shoes. If condition persists, seek medical attention.

Inhaled

Remove to fresh air if effects occur. Consult a physician.

First Aid Facilities

Ensure and eye bath and safety shower are available and ready for use.

2.5 Advice to Doctor

If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

2.6 Toxicity Data

Oral LD50 = 1000 mg/kg (Rat) Dermal LD50 = 1384 mg/kg (Rabbit)

3. PRECAUTIONS FOR USE

3.1 Exposure Standards

TLV: 10 mg/m3 (dust)

3.2 Engineering Controls

Ensure adequate ventilation to maintain exposure levels below standards.

3.3 Personal Protection

Respiratory protection - use an approved air-respirator. In dusty atmopsheres, use an approved dust respirator. Eye proetction - safety glasses should be sufficient for most operations, however for dusty operations or when handling solutions of the material, wear chemical goggles. Skin protection - wear protective clothing such as gloves, boots, apron, or full body suit, whenever needed.

3.4 Flammability

Material is non-flammable

SAFE HANDLING INFORMATION

4.1 Storage / Transport

Keep containers closed when not in use. Store at ambient temperature. Avoid contact with incompatible materials such as metals as it will slowly corrode in aqueous solutions. Prevent possible eye and skin contact by wearing protective clothing and equipment.

4.2 Packaging / Labelling

UN No. N/A

Class None Allocated

Sub Risk None Allocated

Hazchem Code N/A

Pack Group 0

EPG No. N/A

Shipping Name CALCIUM CHLORIDE

Hazard IRRITANT

Risk Phrases

R36 Irritating to eyes.

Safety Phrases

S2 Keep out of the reach of children.

S22 Do not breathe dust.

S24 Avoid contact with skin.

4.3 Spills and Disposal

Spills

Clean up personnel should wear full protective clothing.

Recover quickly into suitable, dry, sealable containers if re-using. Small quantities may be flushed away with plenty of water. Walking surfaces may remain wet longer due to moisture being held by spilled product - avoid by thoroughly washing surface with water. Avoid entry of large amount of product into sewers, natural waters, and drinking water sources. Due to possible harmful effects, avoid contact with vegetation, animals, and fish life.

Disposal

Add to a large volume of water, stir in light excess of soda ash (add slaked lime in presence of fluoride), decant and neutralise in a second container with 6M hydrochloric acid. Dispose of in accordance with applicable federal, state and local regulations.

4.4 FIRE AND EXPLOSION HAZARD

Fire / Explosion

Will not burn or explode. Calcium chloride will : corrode most metals exposed to air; attack aluminium (and its alloys) and yellow brass; react with sulphuric acid to form hydrogen chloride which is corrosive, irritating and reactive; give an exothermic reaction with water-reactive materials such as sodium; result in a runaway polymerisation reaction with methyl vinyl ether (Bretherick, 1979); and, in solution form react with zinc (galvanising) to yield hydrogen gas which is explosive. (Bretherick, L., 1979, Handbook of Reactive Chemical Hazards, 2nd ed.). Hazardous polymerisation will not occur.

Extinguishing Media

Summon Fire Brigade immediately, dial 000. Wear positive pressure self-contained breathing apparatus. Remove from vicinity containers NOT involves in fire. Use equipment/media appropriate to surrounding conditions. Water may be effective for cooling containers.

5 OTHER INFORMATION

Other Information

Avoid entry of large amount of product into sewers, natural waters, and drinking water sources. Due to possible harmful effects, avoid contact with vegetation, animals and fish life.

5.1 Contact Points

Organisation	Location	Telephone	Ask For
Price Chemicals Pty Ltd	Somersby NSW	4340 0088	Technical Officer
Poisons Information Centre	Westmead	131129	
		1800-251525	