



Chemical Entity	Formula	CAS Number	Proportion
Calcium Chloride, Dihydrate	CaCl <sub>2</sub> .2H <sub>2</sub> O	10035-04-8	100 %

#### 4. FIRST AID MEASURES

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

<b>Swallowed</b>	Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek immediate medical assistance.
<b>Eye</b>	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.
<b>Skin</b>	If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.
<b>Inhaled</b>	Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.
<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.

#### 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	Clear fire area of all non-emergency personnel. Stay 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</b>	Not combustible, however, if material is involved in a fire use: Extinguishing media appropriate to surrounding fire conditions.
<b>Fire and Explosion Hazard</b>	Non-combustible material.
<b>Hazardous Products of Combustion</b>	None known.
<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</b>	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves).
<b>Flash Point</b>	No Data Available
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	No Data Available

#### 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	Avoid accidents, clean up immediately. May be slippery when spilt. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Use clean, non-sparking tools and equipment.
<b>Clean Up Procedures</b>	Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water.
<b>Containment</b>	Stop leak if safe to do so. Isolate the danger area.
<b>Environmental Precautionary Measures</b>	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.
<b>Evacuation Criteria</b>	Evacuate all unnecessary personnel.
<b>Personal Precautionary Measures</b>	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

## 7. HANDLING AND STORAGE

<b>Handling</b>	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. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes.
<b>Storage</b>	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Keep dry - reacts with water. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
<b>Container</b>	Store in original packaging as approved by manufacturer.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No exposure standard has been established for this product by The Safe Work Australia (SWA). However, the exposure standard for dust not otherwise specified is 10mg/m <sup>3</sup> (for inspirable dust) and 3mg/m <sup>3</sup> (for respirable dust). 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.
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available on biological limits 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. Adequate ventilation should be provided so that exposure limits are not exceeded.
<b>Personal Protection Equipment</b>	RESPIRATOR: If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements (AS1715/1716). EYES: Chemical goggles (AS1336/1337). HANDS: Impervious gloves (AS2161). CLOTHING: Long-sleeved protective clothing and safety footwear (AS3765/2210).
<b>Work Hygienic Practices</b>	Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Solid
<b>Odour</b>	Odourless
<b>Colour</b>	White
<b>pH</b>	8 - 10
<b>Vapour Pressure</b>	No Data Available
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling/Melting Point</b>	No Data Available
<b>Solubility</b>	Soluble °C
<b>Freezing Point</b>	No Data Available
<b>Specific Gravity</b>	1.85 g/cm <sup>3</sup>
<b>Flash Point</b>	No Data Available
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available

<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	No Data Available
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	No Data Available
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	No Data Available
<b>Potential for Dust Explosion</b>	No Data Available
<b>Fast or Intensely Burning Characteristics</b>	No Data Available
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No Data Available
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No Data Available
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	No Data Available
<b>Reactions That Release Gases or Vapours</b>	No Data Available
<b>Release of Invisible Flammable Vapours and Gases</b>	No Data Available

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	Hygroscopic. Absorbs moisture from the surrounding air. Reacts exothermically on dilution with water.
<b>Chemical Stability</b>	Product is stable under normal conditions of use, storage and temperature.
<b>Conditions to Avoid</b>	Avoid dust generation. Avoid exposure to humidity.
<b>Materials to Avoid</b>	Reacts with acids. Reacts with strong bases.
<b>Hazardous Decomposition Products</b>	None known.
<b>Hazardous Polymerisation</b>	Polymerisation will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	Oral LD50 Rabbit: 1000 mg/Kg
<b>EyeIrritant</b>	An eye irritant.
<b>Ingestion</b>	Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain.
<b>Inhalation</b>	Breathing in dust may result in respiratory irritation.
<b>SkinIrritant</b>	Contact with skin may result in irritation.
<b>Carcinogen Category</b>	0

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	No ecological information available for this product.
<b>Persistence/Degradability</b>	No information available on persistence/degradability for this product.
<b>Mobility</b>	No information available on mobility for this product.
<b>Environmental Fate</b>	Do NOT let product reach waterways, drains and sewers.
<b>Bioaccumulation Potential</b>	No information available on bioaccumulation for this product.
<b>Environmental Impact</b>	No Data Available

### 13. DISPOSAL CONSIDERATIONS

<b>General Information</b>	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
<b>Special Precautions for Land Fill</b>	Contact a specialist disposal company or the local waste regulator for advice.

### 14. TRANSPORT INFORMATION

<b>ADG Code</b>	Non-Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code).
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*Air*

**IATA**

<b>Proper Shipping Name</b>	CALCIUM CHLORIDE DIHYDRATE
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

*Land*

**Australia: ADG**

<b>Proper Shipping Name</b>	CALCIUM CHLORIDE DIHYDRATE
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

**New Zealand: NZS5433**

<b>Proper Shipping Name</b>	CALCIUM CHLORIDE DIHYDRATE
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available

**Hazchem** No Data Available  
**Pack Group** No Data Available  
**Special Provision** No Data Available

**South Africa: NZS5433**

**Proper Shipping Name** CALCIUM CHLORIDE DIHYDRATE  
**Class** No Data Available  
**Subsidiary Risk(s)** No Data Available  
 No Data Available  
**UN Number** No Data Available  
**Hazchem** No Data Available  
**Pack Group** No Data Available  
**Special Provision** No Data Available

**United States of America: US DOT**

**Proper Shipping Name** CALCIUM CHLORIDE DIHYDRATE  
**Class** No Data Available  
**Subsidiary Risk(s)** No Data Available  
 No Data Available  
**UN Number** No Data Available  
**Hazchem** No Data Available  
**Pack Group** No Data Available  
**Special Provision** No Data Available

**Sea**

**IMDG**

**Proper Shipping Name** CALCIUM CHLORIDE DIHYDRATE  
**Class** No Data Available  
**Subsidiary Risk(s)** No Data Available  
**UN Number** No Data Available  
**Hazchem** No Data Available  
**Pack Group** No Data Available  
**Special Provision** No Data Available  
**EMS** No Data Available  
**Marine Pollutant** No

**15. REGULATORY INFORMATION**

**General Information** No Data Available

**EPA (New Zealand)**

**Hazardous Substances and New Organisms Act (HSNO)**

Approval Code: HSR003217

**Poisons Schedule (Aust)** No Data Available

**AICS Name** CALCIUM CHLORIDE, DIHYDRATE

## 16. OTHER INFORMATION

## Related Product Codes

CACHLF1000, CACHLF1001, CACHLF1002, CACHLF1500, CACHLF1501, CACHLF1502, CACHLF1700, CACHLF3100, CACHLF4100, CACHLF7400, CACHLF7700, CACHLO0100, CACHLO0200, CACHLO0300, CACHLO0500, CACHLO0600, CACHLO1100, CACHLO1300, CACHLO1400, CACHLO1500, CACHLO1501, CACHLO1502, CACHLO1600, CACHLO1601, CACHLO1700, CACHLO1800, CACHLO1801, CACHLO1802, CACHLO1803, CACHLO2200, CACHLO2201, CACHLO2300, CACHLO2301, CACHLO2302, CACHLO2400, CACHLO2401, CACHLO2402, CACHLO2500, CACHLO2501, CACHLO2502, CACHLO2503, CACHLO2504, CACHLO2505, CACHLO2506, CACHLO2507, CACHLO2508, CACHLO2509, CACHLO2600, CACHLO2601, CACHLO2700, CACHLO2701, CACHLO2800, CACHLO2801, CACHLO3000, CACHLO3001, CACHLO3002, CACHLO3003, CACHLO3004, CACHLO3005, CACHLO3006, CACHLO3007, CACHLO3100, CACHLO3101, CACHLO3102, CACHLO3103, CACHLO3104, CACHLO3200, CACHLO3201, CACHLO3300, CACHLO3301, CACHLO3302, CACHLO3303, CACHLO3304, CACHLO3305, CACHLO3306, CACHLO3307, CACHLO3308, CACHLO3309, CACHLO3310, CACHLO3311, CACHLO3312, CACHLO3313, CACHLO3314, CACHLO3315, CACHLO3316, CACHLO3317, CACHLO3400, CACHLO3401, CACHLO3500, CACHLO3501, CACHLO3502, CACHLO3600, CACHLO3601, CACHLO3700, CACHLO3701, CACHLO3800, CACHLO3801, CACHLO3900, CACHLO4000, CACHLO4001, CACHLO4100, CACHLO4900, CACHLO5000, CACHLO5100, CACHLO5200, CACHLO5300, CACHLO5301, CACHLO5400, CACHLO5500, CACHLO5501, CACHLO5600, CACHLO5601, CACHLO5700, CACHLO6100, CACHLO6101, CACHLO6200, CACHLO6300, CACHLO6900, CACHLO7000, CACHLO7001, CACHLO7100, CACHLO7200, CACHLO7201, CACHLO7300, CACHLO7400, CACHLO7500, CACHLO7501, CACHLO7600, CACHLO7700, CACHLO7800, CACHLO7801, CACHLO7802, CACHLO7900, CACHLO8000, CACHLO8001, CACHLO8100, CACHLO8200, CACHLO8300, CACHLO8600, CACHLO9000, CACHLO9100, CACHLO9200, CACHLO9300, CACHLO9400, CACHLO9700, CACHLO1610, CACHLO1620, CACHLO5510, CACHLO4520, CACHLO4530, CACHLO5615, CACHLO7250, CACHLO5650, CACHLO9910, CACHLO9920, CACHLO9930, CACHLO7210, CACHLO3150, CACHLO1505, CACHLO0210, CACHLO0410, CACHLO0810, CACHLO9921, CACHLO1701, CACHLO1506, CACHLO1510, CACHLO7002, CACHLO8120, CACHLO7202, CACHLO6215, CACHLO2210, CACHLO2220, CACHLO5010, CACHLO7203, CACHLO3020, CACHLO3030, CACHLO5051, CACHLO5602, CACHLO6201, CACHLO7010, CACHLO7220, CACHLO7251, CACHLO2510, CACHLO8121, CACHLO7223, CACHLO7910

## Revision

2

## Revision Date

05 Aug 2014

## Key/Legend

&lt; Less Than

&gt; Greater Than

**AICS** Australian Inventory of Chemical Substances**atm** Atmosphere**CAS** Chemical Abstracts Service (Registry Number)**cm<sup>2</sup>** Square Centimetres**CO<sub>2</sub>** Carbon Dioxide**COD** Chemical Oxygen Demand**deg C (°C)** Degrees Celcius**EPA (New Zealand)** Environmental Protection Authority of New Zealand**deg F (°F)** Degrees Farenheit**g** Grams**g/cm<sup>3</sup>** Grams per Cubic Centimetre**g/l** Grams per Litre**HSNO** Hazardous Substance and New Organism**IDLH** Immediately Dangerous to Life and Health**immiscible** Liquids are insoluble in each other.**inHg** Inch of Mercury**inH<sub>2</sub>O** Inch of Water**K** Kelvin**kg** Kilogram**kg/m<sup>3</sup>** Kilograms per Cubic Metre**lb** Pound**LC<sub>50</sub>** LC stands for lethal concentration. LC<sub>50</sub> is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.**LD<sub>50</sub>** LD stands for Lethal Dose. LD<sub>50</sub> is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.**ltr** or **L** Litre**m<sup>3</sup>** Cubic Metre**mbar** Millibar**mg** Milligram**mg/24H** Milligrams per 24 Hours**mg/kg** Milligrams per Kilogram**mg/m<sup>3</sup>** Milligrams per Cubic Metre**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.**mm** Millimetre**mmH<sub>2</sub>O** Millimetres of Water**mPa.s** Millipascals per Second

**N/A** Not Applicable  
**NIOSH** National Institute for Occupational Safety and Health  
**NOHSC** National Occupational Health and Safety Commission  
**OECD** Organisation for Economic Co-operation and Development  
**Oz** Ounce  
**PEL** Permissible Exposure Limit  
**Pa** Pascal  
**ppb** Parts per Billion  
**ppm** Parts per Million  
**ppm/2h** Parts per Million per 2 Hours  
**ppm/6h** Parts per Million per 6 Hours  
**psi** Pounds per Square Inch  
**R** Rankine  
**RCP** Reciprocal Calculation Procedure  
**STEL** Short Term Exposure Limit  
**TLV** Threshold Limit Value  
**tne** Tonne  
**torr** Millimetre of Mercury  
**TWA** Time Weighted Average  
**ug/24H** Micrograms per 24 Hours  
**UN** United Nations  
**wt** Weight