



## INDUSTRIAL

### GUARANTEED ANALYSIS

Nitrogen (N)	12.8% w/v
N as nitrate	12.8% w/v
Calcium (Ca)	18.2% w/v
Specific Gravity @ 20°C	1.49 kg/L
pH	3.0 to 7.0

# Calcium Nitrate Solution

(13-0-0-0)

SI0008

**WARNING:**  
**KEEP OUT OF REACH OF CHILDREN**

20 L



## GENERAL USE INFORMATION

### Waste Water Treatment: Prevention of Odour:

Calcium Nitrate Solution has a use in waste water pre-conditioning for odour emission prevention. The addition of nitrate provides the facultative and obligate anaerobic bacteria with an alternative to using sulphate as an electron acceptor, preventing the formation of sulphide. Sulphate-reducing bacteria will preferentially reduce oxygen, nitrate, and sulphate in that order. If sufficient oxygen or nitrate is provided in solution, sulphate conversion to sulphide will be minimized.

As an additional benefit, easy degradable organic matter will also be consumed, reducing the likelihood of anaerobic conditions occurring downstream.

### Control of Odour:

The addition of Calcium Nitrate Solution can aid in the control of dissolved sulphide in wastewater when concentrations exceeding 0.5 mg/L. The added nitrate supplies oxygen which allows the biochemical oxidation of sulphide by bacteria such as Thiobacillus denitrificans.

Calcium Nitrate Solution is safe to use and does not require special handling or storage, it can maintain a long residual and its reactions do not form hazardous by-products. An additional benefit is prevention of the corrosive effects of hydrogen sulphide.

### Concrete Accelerator:

Calcium Nitrate Solution can be used as a chlorine free set accelerator in concrete admixtures. The calcium ions accelerate the formation of calcium hydroxide, precipitation and setting.

The presence of Calcium Nitrate Solution increases the rate of heat release and may give a greater temperature rise than the equivalent plain concrete mix.

The accelerating effect is most pronounced at temperatures below 10 deg C.

The setting time of concrete containing accelerator is typically 1 to 2 hours shorter, depending on dose rate and ambient temperature.

The nitrate contained in Calcium Nitrate Solution inhibit chloride initiated corrosion of steel embedded in concrete by aiding the formation of iron hydroxide, which forms a protective layer reducing corrosion of the concrete reinforcement.

## PRODUCT INFORMATION

### PRODUCT STORAGE

Keep material in a shaded, cool, dry, well ventilated area. Store product in suitable containers made from material such as stainless steel, high density polyethylene and fibreglass. This product can be corrosive to material such as brass, copper, zinc or alloys of these metals. Clean equipment after application of Calcium Nitrate Solution thoroughly with clean fresh water. This product is recommended for use within 12 months from dispatch date.

### WARNING & SAFETY INFORMATION

**WARNING:** Do not swallow. Fumes from this product may act as an irritant, use with adequate ventilation. Avoid inhalation and contact with the eyes and skin. Wear rubber gloves and appropriate eye protection when handling the product. See the product MSDS for further information - [www.sltec.com.au](http://www.sltec.com.au)

Batch No. or Tank Number & Date:

Dispatch Date:

PO Box 43 / 2055 Finlay Road

TONGALA VICTORIA 3621

P: (03) 5859 1323 F: 03 5859 1363

E: [enquiries@sltec.com.au](mailto:enquiries@sltec.com.au)

ABN: 63 234 073 378 ACN: 113 670 269

[www.sltec.com.au](http://www.sltec.com.au)