

## # Calcium Lactate

Revision Date 26.10.2004  
Ref. SD100/2004-031. IDENTIFICATION OF THE  
SUBSTANCE /  
PREPARATION  
AND THE  
COMPANY /  
UNDERTAKING

<b>Product name</b>	Calcium-L-Lactate, PURACAL <sup>®</sup>		
<b>Use of the Substance</b>	Mineral supplement, Specialty chemical		
<b>Supplier</b>	PURAC biochem Arkelsedijk 46 NL-4206 AC Gorinchem The Netherlands	PURAC Biochem M. en O. weg 11 NL-9563 TM Ter Apelkanaal The Netherlands	
<b>Telephone</b>	+31 183 695695	+31 599 568700	
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<b>Emergency telephone</b>	+31 183 695695	+31 599 568700	

2. COMPOSITION /  
INFORMATION ON  
INGREDIENTS

<b># Chemical name of the substance</b>	Calcium (S)-2-hydroxy propanoate		
<b># Synonyms</b>	Calcium Lactate Pentahydrate, Calcium Lactate Trihydrate, Calcium Lactate Monohydrate, Calcium L-2-hydroxy propanoate		
<b># Components</b>	<b>EC-No.</b>	<b>CAS-No.</b>	<b>Weight, %</b>
<b>Calcium lactate</b>	248-953-3	28305-25-1	73 - 95
<b>Water</b>			balance

## # Hazard classification

The product contains no substances which at their given concentration are considered to be hazardous to health.

## 3. HAZARDS IDENTIFICATION

## Most important hazards

Health injuries are not known or expected under normal use.

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**4. FIRST AID MEASURES**

**General advice**

Show this safety data sheet to the doctor in attendance.  
Immediate medical attention is not required

**Skin contact**

Wash off with water.

**Eye contact**

Rinse thoroughly with plenty of water, also under the eyelids.

**Ingestion**

Drink water.

**Major effects of exposure**

May cause eye irritation with susceptible persons. May cause irritation of respiratory tract.

**Protection of first-aiders**

No hazards which require special first aid measures.

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**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Water, carbon dioxide (CO<sub>2</sub>), foam.

**Extinguishing media which must not be used for safety reasons**

None.

**Specific hazards**

None.

**Special protective equipment for firefighters**

None.

**Specific methods**

Standard procedure for chemical fires.

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**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

Use personal protective equipment. Avoid contact with skin and eyes.

**Environmental precautions**

Prevent further leakage or spillage.  
No special environmental precautions required.

**Methods for cleaning up**

Pick up and transfer to properly labelled containers.  
After cleaning, flush away traces with water.

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## 7. HANDLING AND STORAGE

**Handling****Technical measures/Precautions**

No special technical protective measures required.

**Safe handling advice**

Handle in accordance with good industrial hygiene and safety practice.

**Storage****Technical measures/Storage conditions**

Keep in a dry place.

Keep tightly closed.

**Packaging material**

Plastic, paper, fibre drums or boxes.

8. EXPOSURE CONTROLS /  
PERSONAL PROTECTION**Engineering measures to reduce exposure**

Ensure adequate ventilation, especially in confined areas.

**Control parameters**

None.

**Personal protection equipment****Respiratory protection**

Effective dust mask.

**Hand protection**

None.

**Eye protection**

Safety glasses.

**Skin and body protection**

None.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

## # Calcium Lactate

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PROPERTIES

# Form	powder/agglomerate/granular
Colour	white
Odour	slight / none
pH	6 - 8.5 (10% aqueous solution)
Melting point/range	> 200°C
Decomposition temperature	>200°C
Flash point	not applicable
<b>Explosion limits of the pentahydrate</b>	
Max. Explosion overpressure: 5.1 bar	Min. Ignition energy: > 8700 mJ
Max. pressure increase rate: 105 bar/s	Min. Ignition temperature: 610°C
Explosion Class: ST 1	Dust explosion constant: 29 bar. m/s
<b>Bulk density</b>	300 - 500 kg/m <sup>3</sup>
<b>Solubility</b>	Water solubility: 7-9g /100g water @ 25°C

10. STABILITY AND  
REACTIVITY

**Stability**  
Stable at normal conditions. Hazardous polymerisation does not occur.

**Materials to avoid**  
Strong oxidising agents.

**Hazardous decomposition products**  
Carbon oxides.

11. TOXICOLOGICAL  
INFORMATION

**Acute toxicity**  
Health injuries are not known or expected under normal use.  
LDLo: 140 mg/kg ( ivn-mus)

**Long term toxicity**  
Did not show carcinogenic effects in animal experiments. Based on tests with L-lactic acid and its salts, there is no evidence to suggest carcinogenic nor mutagenic properties from lactic acid itself nor from the lactate portion of its salts.

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**12. ECOLOGICAL INFORMATION**

**Mobility**

Completely soluble.

**Persistence / degradability**

Product is a salt of lactic acid which is readily biodegradable.

**Bioaccumulation**

None.

**Ecotoxicity**

Ecological injuries are not known or expected under normal use.

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**13. DISPOSAL CONSIDERATIONS**

**Waste from residues / unused products**

Can be disposed as waste water, when in compliance with local regulations.  
Can be landfilled or incinerated, when in compliance with local regulations.

**Contaminated packaging**

Clean container with water.  
Empty containers should be taken for local recycling, recovery or waste disposal.

**Further information**

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

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**14. TRANSPORT INFORMATION**

Not classified as dangerous in the meaning of transport regulations.

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**15. REGULATORY INFORMATION**

The product does not need to be labelled in accordance with EC directives or respective national laws.

EC Food additive: E 327

USA FDA/GRAS Status.

German Water Hazard Class (WGK): 1

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**16. OTHER INFORMATION**

Further information on the safety assessment of lactic acid esters can be obtained in a CFTA Report of June 6th 1997.

Additional data on the calculated ecotoxicity of lactic acid and its salts and esters can be obtained in a report entitled 'The ecotoxicity and biodegradability of lactic acid, alkyl lactate esters and lactic acid salts' by Bowmer et al. (Reference: Chemosphere 37: 1317-1333 (1998))

# This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

# Indicates updated section.

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*For further information:*

<http://www.purac.com/>