

# Safety data sheet

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Safety data sheet according to UN GHS 4th rev.

Date / Revised: 02.12.2022

Version: 1.0

Product: **Lutavit® Calpan 98%**

(ID no. 30041184/SDS\_GEN\_ZA/EN)

Date of print 15.10.2025

## 1. Identification

### Product identifier

## Lutavit® Calpan 98%

Chemical name: Calcium pantothenate , D-form

CAS Number: 137-08-6

### Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: feed additive(s)

### Details of the supplier of the safety data sheet

Company:

### Emergency telephone number

National emergency number:

+27 11 203 2420

International emergency number:

Telephone: +49 180 2273-112

## 2. Hazards Identification

### Classification of the substance or mixture

According to UN GHS criteria

No need for classification according to GHS criteria for this product.

### Label elements

Globally Harmonized System (GHS)

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The product does not require a hazard warning label in accordance with GHS criteria.

### Other hazards

According to UN GHS criteria

The product is under certain conditions capable of dust explosion.

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## 3. Composition/Information on Ingredients

### Substances

Chemical nature

Calcium pantothenate , D-form

CAS Number: 137-08-6

EC-Number: 205-278-9

Hazardous ingredients (GHS)

According to UN GHS criteria

calcium-beta-alaninate

Content (W/W): > 0 % - < 1 %

CAS Number: 36321-40-1

EC-Number: 252-973-8

Acute Tox. 5 (oral)

Eye Dam./Irrit. 1

H318, H303

For the classifications not written out in full in this section the full text can be found in section 16.

### Mixtures

Not applicable

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## 4. First-Aid Measures

### Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

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Rinse mouth and then drink 200-300 ml of water.

**Most important symptoms and effects, both acute and delayed**

Symptoms: (Further) symptoms and / or effects are not known so far

**Indication of any immediate medical attention and special treatment needed**

Treatment: Symptomatic treatment (decontamination, vital functions).

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**5. Fire-Fighting Measures****Extinguishing media**

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

Additional information:

Avoid whirling up the material/product because of the danger of dust explosion.

**Special hazards arising from the substance or mixture**

harmful vapours, carbon oxides, nitrogen oxides

The substances/groups of substances mentioned can be released in case of fire. Burning produces harmful and toxic fumes. Dust explosion hazard.

**Advice for fire-fighters**

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Dust can form an explosive mixture with air. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Cool endangered containers with water-spray.

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**6. Accidental Release Measures**

Dust can form an explosive mixture with air.

**Personal precautions, protective equipment and emergency procedures**

Avoid dust formation. Information regarding personal protective measures, see section 8. Use personal protective clothing.

**Environmental precautions**

Do not discharge into drains/surface waters/groundwater.

**Methods and material for containment and cleaning up**

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

Dispose of absorbed material in accordance with regulations. Avoid raising dust.

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## 7. Handling and Storage

### Precautions for safe handling

Avoid dust formation. Provide exhaust ventilation if dust is formed.

Protection against fire and explosion:

The product is capable of dust explosion. Avoid dust formation. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Use explosion-proof apparatus and fittings.

### Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Low density polyethylene (LDPE), Galvanized carbon steel (Zinc), Stainless steel 1.4301 (V2), Stainless steel 1.4401, glass, Paper/Fibreboard, High density polyethylene (HDPE), Aluminium, tinned carbon steel (Tinplate), Carbon steel (Iron)  
Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

### Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

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## 8. Exposure Controls/Personal Protection

### Control parameters

#### Components with occupational exposure limits

No substance specific occupational exposure limits known.

### Exposure controls

#### Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1 or FFP1)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

chemical protection overall (f.e. according to EN 13982) if dust is formed.

#### General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift. Store work clothing separately.

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## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Form:	granules	
Colour:	white	
Odour:	almost odourless	
Odour threshold:		
	not applicable	
pH value:	6.5 - 9.5 (50 g/l, 20 °C)	
Melting temperature:	approx. 190 °C	
decomposition point:	195 °C (1,013 hPa) The substance / product decomposes.	
Flash point:		
	not applicable, the product is a solid	
Evaporation rate:		
	The product is a non-volatile solid.	
Flammability:	not highly flammable	(UN Test N.1 (ready combustible solids))
Lower explosion limit:		
	For solids not relevant for classification and labelling.	
Upper explosion limit:		
	For solids not relevant for classification and labelling.	
Ignition temperature:	430 °C	(VDI 2263, sheet 1, 2.6)
Vapour pressure:		
	not applicable	
Density:	1.162 g/cm <sup>3</sup> (25 °C)	
Relative density:		
	No data available.	
Relative vapour density (air):		
	The product is a non-volatile solid.	
Solubility in water:		
	350 g/l (20 °C)	
Solubility (qualitative) solvent(s):	organic solvents soluble	
Partitioning coefficient n-octanol/water (log Kow):	-3.9 (25 °C)	(measured)
Self ignition:	not self-igniting	Test type: Spontaneous self- ignition at room-temperature.
	Temperature: 430 °C	Test type: Self-ignition at high temperatures.
Thermal decomposition:	>= 130 °C (DSC (DIN 51007))	
Viscosity, dynamic:		
	not applicable, the product is a solid	

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Explosion hazard: Product is not explosive, however a dust explosion could result from an air / dust mixture.

Fire promoting properties: Based on its structural properties the product is not classified as oxidizing.

### Other information

Burning rate:	The material doesn't meet the criteria specified in paragraph 33.2.4.4 of UN manual of tests and criteria.	(UN Test N.1 (ready combustible solids))
Self heating ability:	It is not a substance capable of spontaneous heating according to UN transport regulations class 4.2.	(VDI 2263, sheet 1, 1.4.1)
SADT:	No data available.	
Minimum ignition energy:	> 0.3 - < 1 J (1,013 hPa, 20 °C) Inductivity: 1 mH The product is capable of dust explosion.	(VDI 2263, sheet 1, 2.5)
Bulk density:	approx. 600 kg/m <sup>3</sup>	
Adsorption/water - soil:	KOC: 10; log KOC: 1 Adsorption to solid soil phase is not expected.	(calculated)
Grain size distribution:	particles < 500 µm	97 %

## 10. Stability and Reactivity

### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:	Corrosive effects to metal are not anticipated.	
Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Peroxides: The product does not contain peroxides.

### Possibility of hazardous reactions

Dust explosion hazard.

### Conditions to avoid

Avoid dust formation. See SDS section 7 - Handling and storage.

### Incompatible materials

Substances to avoid:

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None known during use and storage if used according to instructions.**Hazardous decomposition products**

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

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**11. Toxicological Information****Information on toxicological effects**Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation.

Experimental/calculated data:

LD50 rat (oral): &gt; 5,000 mg/kg (BASF-Test)

LC0 rat (by inhalation): 2.14 mg/l 7 h (IRT)

Inhalation-risk test (IRT): No mortality within 7 hours as shown in animal studies. The inhalation of a highly saturated vapor-air mixture represents no acute hazard. Tested as dust aerosol.

LC50 rat (by inhalation): > 5.2 mg/l 4 h (OECD Guideline 403)  
no dataIrritation

Assessment of irritating effects:

Not irritating to eyes and skin.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (Draize test)

Serious eye damage/irritation rabbit: non-irritant (Draize test)

Respiratory/Skin sensitization

Assessment of sensitization:

No sensitizing effect.

Experimental/calculated data:

Guinea pig maximization test guinea pig: Non-sensitizing. (other)

Germ cell mutagenicity

Assessment of mutagenicity:

Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:

Not classified, due to lack of data.

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#### Reproductive toxicity

Assessment of reproduction toxicity:

Based on available data, the classification criteria are not met.

#### Developmental toxicity

Assessment of teratogenicity:

Not classified, due to lack of data.

#### Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

#### Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Based on available data, the classification criteria are not met.

#### Aspiration hazard

No aspiration hazard expected.

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## 12. Ecological Information

### **Toxicity**

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible.

Toxicity to fish:

LC50 (96 h) > 10,000 mg/l, *Leuciscus idus* (DIN 38412 Part 15, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates:

EC50 (48 h) > 580 mg/l, *Daphnia magna* (DIN 38412 Part 11, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic plants:

EC50 (72 h) > 500 mg/l (growth rate), *Scenedesmus subspicatus* (DIN 38412 Part 9, static)

The details of the toxic effect relate to the nominal concentration.

Microorganisms/Effect on activated sludge:

EC10 (17 h) > 10,000 mg/l, *Pseudomonas putida* (DIN 38412 Part 8, aerobic)

The details of the toxic effect relate to the nominal concentration.

EC20 (180 min) approx. 20 mg/l, activated sludge, industrial (DIN EN ISO 8192, aerobic)

Chronic toxicity to fish:



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No data available.

Chronic toxicity to aquatic invertebrates:

No data available.

Assessment of terrestrial toxicity:

No data available.

### **Persistence and degradability**

Assessment biodegradation and elimination (H<sub>2</sub>O):

Not readily biodegradable (by OECD criteria). Biodegradable. Easily eliminated from water. The product has not been tested. The statement has been derived from the properties of the individual components.

Elimination information:

> 90 % DOC reduction (28 d) (OECD Guideline 302 B) (aerobic, activated sludge)

Assessment of stability in water:

According to structural properties, hydrolysis is not expected/probable.

Information on Stability in Water (Hydrolysis):

No data available.

### **Bioaccumulative potential**

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

### **Mobility in soil**

Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface.

Adsorption in soil: Adsorption to solid soil phase is not expected.

### **Results of PBT and vPvB assessment**

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification

### **Other adverse effects**

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

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## **13. Disposal Considerations**

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**Waste treatment methods**

Observe national and local legal requirements.

Contaminated packaging:

Uncontaminated packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

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**14. Transport Information****Land transport**

ADR

Not classified as a dangerous good under transport regulations

UN number or ID number: Not applicable

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for user: None known

RID

Not classified as a dangerous good under transport regulations

UN number or ID number: Not applicable

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for user: None known

**Inland waterway transport**

ADN

Not classified as a dangerous good under transport regulations

UN number or ID number: Not applicable

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for user: None known

**Transport in inland waterway vessel**

Not evaluated

**Sea transport**

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**IMDG**

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

**Air transport****IATA/ICAO**

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

**Maritime transport in bulk according to IMO instruments**

Maritime transport in bulk is not intended.

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**15. Regulatory Information****Safety, health and environmental regulations/legislation specific for the substance or mixture**

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

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**16. Other Information**

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Acute Tox.	Acute toxicity
Eye Dam./Irrit.	Serious eye damage/eye irritation
H318	Causes serious eye damage.
H303	May be harmful if swallowed.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification

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agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.