

# Safety data sheet

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BASF Safety data sheet  
Date / Revised: 02.01.2024  
Product: **Lutavit® Calpan 98%**

Version: 7.0

(30041184/SDS\_GEN\_VN/EN)

Date of print: 21.10.2025

## 1. Substance/preparation and manufacturer/supplier identification

**Product name:**  
**Lutavit® Calpan 98%**

Use: feed additive(s)

Manufacturer/supplier:  
BASF Vietnam Co. Ltd.  
Level 23, Deutsches Haus, 33 Le Duan,  
Sai Gon Ward, Ho Chi Minh City, Vietnam  
Telephone: +84 28 3824 3833  
Telefax number: +84 28 3824 3832  
E-mail address: minh-triet.thieu@basf.com

Emergency information:  
18001703 (Vietnam)  
Telefax number: +84 28 3824 3832  
International emergency number:  
Telephone: +49 180 2273-112

## 2. Hazard identification

Classification of the substance and mixture:  
No need for classification according to GHS criteria for this product.

Label elements and precautionary statement:

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

Other hazards which do not result in classification:

| The product is under certain conditions capable of dust explosion.

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### 3. Composition/information on ingredients

#### Chemical nature

Substance nature: Substance

calcium-pantothenate, D-form  
CAS Number: 137-08-6

#### Hazardous ingredients

calcium-beta-alaninate	Content (W/W): > 0 % - < 1 %	Acute Tox.: Cat. 5 (oral)
	CAS Number: 36321-40-1	Eye Dam./Irrit.: Cat. 1

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### 4. First-Aid Measures

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

Note to physician:  
Symptoms: (Further) symptoms and / or effects are not known so far  
Treatment: Symptomatic treatment (decontamination, vital functions).

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### 5. Fire-Fighting Measures

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.

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**Specific hazards:**

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.

**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

**Personal precautions:**

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 for cleaning up or taking 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.

**Additional information:** Dust can form an explosive mixture with air.

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## 7. Handling and Storage

**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.

**Storage**

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.

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## 8. Exposure controls and personal protection

**Components with occupational exposure limits**

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| No substance specific occupational exposure limits known.

#### 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

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)  
Decomposes on heating.

Flash point: not applicable, the product is a solid

Evaporation rate: The product is a non-volatile solid.

Flammability (solid/gas): 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.

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Ignition temperature:	430 °C	(VDI 2263, sheet 1, 2.6 (May 1990))
Thermal decomposition:	$\geq 130$ °C	(DSC (DIN 51007))
Self ignition:	not self-igniting	Test type: Spontaneous self-ignition at room-temperature.
	Temperature: 430 °C	Test type: Self-ignition at high temperatures. (Method: VDI 2263, sheet 1, 2.6 (May 1990))
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 (May 1990))
SADT:	No data available.	
Minimum ignition energy:	The product is capable of dust explosion.	(VDI 2263, sheet 1, 2.5 (May 1990))
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.	
Vapour pressure:	not applicable	
Density:	1.162 g/cm <sup>3</sup> (25 °C)	
Relative density:	No data available.	
Bulk density:	approx. 600 kg/m <sup>3</sup>	
Relative vapour density (air):	The product is a non-volatile solid.	
Solubility in water:	soluble, clear (20 °C)	
Solubility (qualitative) solvent(s):	organic solvents soluble	
Partitioning coefficient n-octanol/water (log Pow):	-3.9 (25 °C; pH value: 9)	(measured)
Adsorption/water - soil:	KOC: 10; log KOC: 1 Adsorption to solid soil phase is not expected.	(calculated)
Viscosity, dynamic:	not applicable, the product is a solid	

## 10. Stability and Reactivity

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Conditions to avoid:

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

Thermal decomposition:  $\geq 130\text{ °C}$  (DSC (DIN 51007))

Substances to avoid:

None known during use and storage if used according to instructions.

Corrosion to metals: Corrosive effects to metal are not anticipated.

Hazardous reactions:

Dust explosion hazard.

Hazardous decomposition products:

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

Chemical stability:

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

Reactivity:

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

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## 11. Toxicological Information

### Routes of exposure

#### Acute oral toxicity

Experimental/calculated data:

LD50rat (oral):  $> 5,000\text{ mg/kg}$  (BASF-Test)

#### Acute inhalation toxicity

LC0 rat (by inhalation):  $2.14\text{ mg/l}$  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):  $> 5.2\text{ mg/l}$  4 h (OECD Guideline 403)

no data

#### Assessment of acute toxicity

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

#### Symptoms

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

#### Irritation

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.

### **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)**

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**

### **Ecotoxicity**

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:**

No data available.

**Chronic toxicity to aquatic invertebrates:**

No data available.

**Assessment of terrestrial toxicity:****Mobility****Assessment transport between environmental compartments:**

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

Adsorption to solid soil phase is not expected.

**Persistence and degradability****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.

**Bioaccumulation 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.



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## 13. Disposal Considerations

Information on disposal regulations: Must comply with regulations on hazardous waste such as:

- Decree No. 08/2022/ND-CP of the Government: detailing a number of articles of the Law on Environmental Protection.

- Circular No. 02/2022/TT-BTNMT of the Ministry of Natural Resources and Environment: detailing a number of articles of the Law on Environmental Protection.

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

### Domestic transport:

	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

### Sea transport

#### 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
	Marine pollutant: no
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
Proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable

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Special precautions for user      None known

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## 15. Regulatory Information

### Other regulations

The SDS is composed based on the Global Harmonization Globally Harmonized System of Classification and Labeling of Chemicals and applicable local chemical regulations as following:

- The Chemical Law 06/2007/QH12 issued on 21/11/2007.
- The decree No. 113/2017/ND-CP specifying and providing guidelines for implementation of certain articles of the law on chemicals.
- The decree No. 82/2022/ND-CP Amendments to some articles of government's decree no.113/2017/ND-CP dated October 09, 2017 specifying and providing guidelines for implementation of certain articles of the law on chemicals.
- Circular 17/2022/TT-BCT Amendments to some articles of circular no. 32/2017/TT-BCT dated December 28, 2017 of the Minister Of Industry And Trade on elaboration and provision of guidelines for implementation of certain articles of the law on chemicals and the government's decree no. 113/2017/ ND-CP dated October 09, 2017 on elaboration and provision of guidelines for implementation of certain articles of the law on chemicals.
- The decree No. 17/2020/ND-CP Amendments to some articles of decrees related to necessary business conditions in fields under the management of the Ministry Of Industry and Trade.
- The decree No. 42/2020/ND-CP on list of dangerous goods, transport of dangerous goods by land motor vehicles and transport of dangerous goods by inland waterways.
- The Circular 32/2017/TT-BCT specifying and providing guidelines for implementation of certain articles of the law on chemicals and the government's decree no. 113/2017/ND-CP dated October 09, 2017 specifying and providing guidelines for implementation of certain articles of the law on chemicals.

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.

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

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 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.