Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 31.01.2025 Version number 1 Revision: 31.01.2025

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Calcium Propionate
Chemical Identification: Calcium dipropionate
CAS Number:
4075-81-4
EC number:
223-795-8
Registration number:
This substance is exempted from registration because it is used in food or feed in accordance with the provisions of Article 2(5)(b) of REACH.

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

No further relevant information available.
Application of the substance / the mixture: Food additive: preservative E282

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
PENETRON HELLAS S.A.
50, THRAKOMAKEDONON AV., 136 79 ACHARNES, GREECE
TEL.: +30 210 2448250 - FAX: + 30 210 2476803
Email: info@penetron.gr Site: www.penetron.gr
G.E.MH. No: 07278001000

1.4 Emergency telephone number:



European Emergency Tel.: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation EC No 1272/2008 CLP:



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

2.2 Label elements

Labelling according to Regulation EC No 1272/2008 CLP:
The substance is classified and labelled according to the CLP regulation.
Hazard pictograms:



GHS05

Signal word: Danger

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Hazard-determining components of labelling:
calcium dipropionate

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements
P280 Wear eye protection / face protection
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

2.3 Other hazards
Results of PBT and vPvB assessment
The substance shall not be considered to be either Persistent, Bioaccumulative, Toxic (PBT) or Highly Persistent and Highly Bioaccumulative (aAaB).
PBT: Not applicable.
vPvB: Not applicable.
Determination of endocrine-disrupting properties
The substance is not included in the list established in accordance with Article 59(1) of REACH for endocrine disrupting properties or has not been identified as having endocrine disrupting properties according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1 Substances
CAS No. Description
CAS: 4075-81-4 calcium dipropionate - 100% w/w
Identification number(s)
EC number: 223-795-8
SVHC
This product does not contain candidate substances of very high concern at a concentration ≥0.1% (Regulation (EC) No 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1 Description of first aid measures
General information: Immediate medical attention is required.
After inhalation:
If breathing is difficult, remove to fresh air. Restore breathing. Keep warm and quiet.
In case of unconsciousness place patient stably in side position for transportation.
Consult a physician immediately.
After skin contact:
Rinse with plenty of water and soap.
In case of discomfort, consult a doctor.
After eye contact:
Immediately rinse the eyes with plenty of water, alternately lifting the upper and lower eyelids.
Check and remove contact lenses if any.
Continue to rinse for at least 15 minutes.
Seek medical attention if irritation occurs.

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Avoid strong water jet-risk of cornea damage, consult a doctor.
After swallowing:
Drink plenty of water and provide fresh air. Call for a doctor immediately.
Consult the doctor immediately and show the label or this Safety Data Sheet.
Never give anything by mouth to an unconscious person.
4.2 Most important symptoms and effects, both acute and delayed
Eye contact: Causes severe irritation with flood of tears and pain and strong redness and swelling of the eye.
Risk of damage to the conjunctiva and cornea.
4.3 Indication of any immediate medical attention and special treatment needed Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents: Strong water jet.
5.2 Special hazards arising from the substance or mixture
Avoid creating dust.
Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon monoxide (CO), Carbon dioxide (CO2).
5.3 Advice for firefighters
Protective equipment:
Self-contained breathing apparatus and protective clothing in case of fire.
Wear eye protection.
Additional information
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:
Avoid contact with skin and eyes.
Ensure adequate ventilation.
Avoid formation of dust.
Wash hands thoroughly after handling
Wear protective clothing as described in Section 8 of this Safety Data Sheet.
6.1.1 For non-emergency personnel
Use personal protective equipment.
Caution for slippery surfaces.
Keep away from ignition sources.
6.1.2 For emergency responders
Keep unprotected persons away.
First-aid responders must wear protectice clothing, gloves, goggles and respiratory device with filter type A.
6.2 Environmental precautions: Prevent the product from entering sewers, rivers or the aquatic environment.
6.3 Methods and material for containment and cleaning up:
Cover to prevent dust formation. Pick up and transfer to properly labeled containers. Use spark-proof tools and explosion-proof equipment.
Methods for cleaning up.
Clean contaminated surface thoroughly. After cleaning, flush away traces with water.
Dispose contaminated material as waste according to section 13.

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6.4 Reference to other sections:
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin, eyes and clothing.
Do not eat, drink or smoke when using this product.
Wash your hands before each break and after finishing work.
Avoid dust inhalation.
Wash contaminated clothes before reusing them.
Information about fire - and explosion protection:


Keep ignition sources away - Do not smoke.

Prevent the creation of electrostatic charges
Dust can combine with air to form an explosive mixture.
7.2 Conditions for safe storage, including any incompatibilities
Storage: Store in tightly closed containers, in a cool and dry place with good ventilation.
Requirements to be met by storerooms and receptacles: Store in a cool and dry place.
Information about storage in one common storage facility:
Keep away from water.
Store away from humidity.
Further information about storage conditions: Keep container tightly sealed.
7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace: Not required.
DNELs
(CAS: 4075-81-4) Calcium dipropionate
Workers:
inhalation, Systemic effects, Long term exposure: 37.7 mg/m³
inhalation, Local effects, Long term exposure: 37.7 mg/m³
dermal, Systemic effects, Long term exposure: 26.4 mg/kg bw/d
General Population:
inhalation, Systemic effects, Long term exposure: 4.61 mg/m³
inhalation, Local effects, Long term exposure: 4.61 mg/m³
dermal, Systemic effects, Long term exposure: 13.2 mg/kg bw/d
oral, Systemic effects, Long term exposure: 12.1 mg/kg bw/d

8.2 Exposure controls

8.2.1. Appropriate engineering controls
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen- deficient environment.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment)

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are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Ensure adequate ventilation. Emergency eyewash facilities must be located in the vicinity of where the product is handled.

Individual protection measures, such as personal protective equipment
General protective and hygienic measures:
Avoid contact with skin and eyes.
Do not eat, drink or smoke while using the product.
Avoid inhalation of dust.
Remove contaminated clothes and wash before reusing them.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Respiratory protection:



Provide suction extractors if dust is formed or use dust filter mask (minimum N95).

Hand protection



Wear suitable gloves (EN 374)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves
Nitrile rubber, NBR
Chloroprene rubber, (CR)
Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
Eye/face protection



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

Body protection:



Protective work clothing

Environmental exposure controls
Dispose of flushing liquids in accordance with local and national regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Physical state Solid

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Colour:	White
Odour:	Characteristic
Odour threshold:	Not determined
Melting point/freezing point:	382-384 °C (OECD 102)
Boiling point or initial boiling point and boiling range	Not determined
Flammability	Product is not flammable.
Lower and upper explosion limit	
Lower:	Not determined
Upper:	Not determined
Flash point:	Not Flammable
Auto-ignition temperature:	Not specified
Decomposition temperature:	Not determined
pH (100 g/l) at 20 °C	6-9
Viscosity:	
Kinematic viscosity	Not applicable
Dynamic:	Not applicable
Solubility	
water:	Soluble
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure at 23 °C:	3.99 hPa
Density and/or relative density	
Density at 20 °C:	1.41 g/cm³
Relative density	Not determined
Bulk density:	500-800 kg/m³
Vapour density	Not applicable
Particle characteristics	See section 3.

9.2 Other information

Appearance:	
Form:	Powder.
Important information on protection of health and environment, and on safety.	
Ignition temperature:	Not determined.
Explosive properties:	Product does not present an explosion hazard.
Solids content:	100.0 %
Change in condition	Not applicable
Fusion temperature / range:	Not applicable
Oxidising properties	Not oxidising
Evaporation rate	Not applicable

Information with regard to physical hazard classes

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void

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Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity Stable under normal conditions
10.2 Chemical stability Material is stable under normal conditions.
Thermal decomposition / conditions to be avoided Stable at environment temperature.
10.3 Possibility of hazardous reactions
Reacts with alkalis.
Reacts with acids
Reacts with oxidising agents.
10.4 Conditions to avoid Avoid heat, flames, sparks, other sources of ignition.
10.5 Incompatible materials See Section 10.3
10.6 Hazardous decomposition products
Carbon dioxide (CO2)
Carbon monoxide (CO)

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:		
CAS: 4075-81-4 calcium dipropionate		
Oral	LD50	3,455 mg/kg (rat) (Acute Oral Toxicity)
Inhalative	LC50/4h (dusts and mists)	>24.4 mg/l (rat) (Acute Inhalation Toxicity)

Specific symptoms in biological assay:
Skin corrosion/irritation
Calcium dipropionate (CAS: 4075-81-4)
Method: OECD Test No. 404: Acute Dermal Irritation/Corrosion
Species: Rabbit
Exposure route: Dermal
Results: Non-irritant
Serious eye damage/irritation
Calcium dipropionate (CAS: 4075-81-4)
Method: OECD Test No. 405: Acute Eye Irritation/Corrosion
Species: Rabbit
Exposure route: Eye
Results: Causes serious eye damage
Respiratory or skin sensitisation
Calcium dipropionate (CAS: 4075-81-4)
Method:OECD Test No. 406: Skin Sensitization
Species: Guinea pig
Exposure route: Skin

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Results: Not a skin sensitizer read-across from supporting substance (structural analogue)
Germ cell mutagenicity
Calcium dipropionate (CAS: 4075-81-4)
Methods:
OECD Test No. 471: Bacterial Reverse Mutation Test: Species - in vitro - Negative read-across from supporting substance (structural analogue).
OECD Test No. 473: In vitro Mammalian Chromosome Aberration Test: Species - in vitro - Negative read-across from supporting substance (structural analogue).
OECD Test No. 476: In vitro Mammalian Cell Gene Mutation Test: Species - in vitro - Negative read-across from supporting substance (structural analogue).
OECD Test No. 479: Genetic Toxicology: In vitro Sister Chromatid Exchange Assay in Mammalian Cells: Species - in vitro - Negative read-across from supporting substance (structural analogue).
Based on available data, the classification criteria are not met.
Carcinogenicity
Calcium dipropionate (CAS: 4075-81-4)
Species: rat
Exposure route: Oral
Effective dose: 4000
Remarks: NOAEL ppm read-across from supporting substance (structural analogue)
Based on available data, the classification criteria are not met.
Reproductive toxicity
Calcium dipropionate (CAS: 4075-81-4)
No embryotoxic or teratogenic effects have been observed.
OECD Test No. 414: Prenatal Development Toxicity Study / Species: Rat, Exposure route: Oral / Effective dose: 300 - Remarks: NOAEL mg/kg bw/d
- No embryotoxic or teratogenic effects have been observed.
OECD Test No. 414: Prenatal Development Toxicity Study / Species: Rabbit, Exposure route: Oral / Effective dose: 400 - Remarks: NOAEL mg/kg bw/d
- No embryotoxic or teratogenic effects have been observed.
Based on available data, the classification criteria are not met.
STOT-single exposure Based on available data, the classification criteria are not met.
STOT-repeated exposure
Calcium dipropionate (CAS: 4075-81-4)
OECD Test No. 408: Repeated Dose 90-Day Oral Toxicity Study in Rodents
Species: Rat
Exposure route: Oral
Effective dose: NOAEL = 600 ppm
read-across from supporting substance (structural analogue) Chronic effects, local.
OECD Test No. 408: Repeated Dose 90-Day Oral Toxicity Study in Rodents
Species: Rat
Exposure route: Oral
Effective dose: NOAEL = 50000 ppm
read-across from supporting substance (structural analogue systemic toxicity).
Based on available data, the classification criteria are not met.
Aspiration hazard Based on available data, the classification criteria are not met.
Additional toxicological information:
Repeated dose toxicity Based on available data, the classification criteria are not met.
11.2 Information on other hazards
Endocrine disrupting properties
The substance is not recognised as having endocrine disrupting properties under Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 nor is it included in the list of candidate substances of very high concern under Article 59 of the EU Regulation for endocrine disrupting properties.

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Substance is not listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

CAS: 4075-81-4 calcium dipropionate

EC50 (72h)	>500 mg/l (ssu) (Freshwater Alga and Cyanobacteria, Grow Inhibition)
EC50 (48h)	>500 mg/l (Daphnia magna) (440/2008, Annex, C.2)
LC50 (96h)	>10,000 mg/l (Leuciscus Idus) (DIN 38412)

12.2 Persistence and degradability

Calcium dipropionate (CAS: 4075-81-4)
Method - Regulation (EC) No. 440/2008, Annex, C.5 (BOD)
Value: 93%
Exposure time: 20 days
Results: Readily biodegradable read-across from supporting substance (structural analogue).
Method - OECD Test No. 302B: Inherent Biodegradability: Zahn-Wellens/ EVPA Test
Value: 95%
Exposure time: 10d
Results: Readily biodegradable read-across from supporting substance (structural analogue).

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment The substance is not considered to be PBT nor vPvB.

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties

The substance is not included in the list established in accordance with Article 59(1) of REACH for endocrine disrupting properties or has not been identified as having endocrine disrupting properties according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7 Other adverse effects

Additional ecological information:

General notes: Must not reach sewage water or drainage ditch undiluted or unneutralised.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation



Dispose according to National Regulations.



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

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European waste catalogue	
HP4	Irritant - skin irritation and eye damage

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number	Unenforceable. Not classified as dangerous for transport.
ADR, IMDG, IATA	Void
14.2 UN proper shipping name	Void
ADR, IMDG, IATA	Void
14.3 Transport hazard class(es)	Void
ADR, ADN, IMDG, IATA	
Class	Void
14.4 Packing group	Void
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Not applicable.
14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
UN "Model Regulation":	Void

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
REACH Regulation 1907/2006/EC
Regulation (EU) 2020/878
CLP Regulation 1272/2008/EC
Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.
Council Directive 94/33/EC on the protection of young people at work, as ammended.
Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended

Directive 2012/18/EU
Named dangerous substances - ANNEX I
None of the ingredients is listed.
The substance is not included in Annex I.

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
Substance is not listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))
Substance is not listed.

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Annex II - REPORTABLE EXPLOSIVES PRECURSORS

Substance is not listed.

Regulation (EC) No 273/2004 on drug precursors

Substance is not listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

Substance is not listed.

National regulations: None

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

The substance is not SVHC.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

Classification according to Regulation (EC) No 1272/2008

The classification of the substance is in accordance with the criteria of Regulation (EC) 1272/2008.

Department issuing SDS:

SUSTCHEM S.A.
REACH & Chemical Services Department
A: 144, 3rd Septemvriou, GR 112 51 | Athens, Greece
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Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Eye Dam. 1: Serious eye damage/eye irritation – Category 1