



# Calcium sulfate hemihydrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Reference number: SDS-9202022-2  
Issue date: 9/20/2022 Version: 1.0

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

#### 1.1. Product identifier

Product form : Substance  
Name : Calcium sulfate hemihydrate  
EC-No : 600-067-1  
CAS-No : 10034-76-1  
Formula :  $\text{CaSO}_4 \cdot 0.5\text{H}_2\text{O}$

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use  
Use of the substance/mixture : Plaster for use in the production of giftware, fibrous/GRG moulding and for general plaster casting

##### 1.2.2. Uses advised against

No additional information available

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

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#### 1.4. Emergency telephone number

Emergency number : +90 262 310 5000

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

#### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Comments : Principally calcium sulphate hemihydrate and natural constituents, which may include clay, limestone and trace amounts of quartz.  
Name : Calcium sulfate hemihydrate

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Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium sulfate hemihydrate	CAS-No.: 10034-76-1 EC-No.: 600-067-1	85 – 95	Not classified
calcium sulfate, dihydrate	CAS-No.: 10101-41-4 EC-No.: 231-900-3	1 – 5	Not classified
calcium sulfate	CAS-No.: 7778-18-9 EC-No.: 231-900-3	0 – 5	Not classified
Calcium Carbonate	CAS-No.: 1317-65-3 EC-No.: 215-279-6	0 – 3	Not classified
Quartz (SiO <sub>2</sub> )	CAS-No.: 14808-60-7 EC-No.: 238-878-4	0 – 1	Not classified

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ).
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.

### 5.2. Special hazards arising from the substance or mixture

Reactivity in case of fire	: At high temperature may liberate dangerous gases.
Hazardous decomposition products in case of fire	: On heating or during combustion : Toxic fumes may be released.

### 5.3. Advice for firefighters

Precautionary measures fire	: Keep away from combustible materials. Keep container closed when not in use. Approach from upwind.
Firefighting instructions	: Exercise caution when fighting any chemical fire. Keep upwind. Do not enter fire area without proper protective equipment, including respiratory protection. Eliminate all ignition sources if safe to do so. Contain the extinguishing fluids by bunding.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Notify authorities if product enters sewers or public waters.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Keep public away from danger area.

##### 6.1.1. For non-emergency personnel

Protective equipment : For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate spillage area.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Equip cleanup crew with proper protection. Evacuate unnecessary personnel.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

Incompatible products : Strong acids. Strong bases. Strong oxidizing agents.

Incompatible materials : Extremely high or low temperatures.

#### 7.3. Specific end use(s)

See Section 1.2.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

Quartz (SiO <sub>2</sub> ) (14808-60-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Silica crystalline (Quartz)
IOEL TWA	0.05 mg/m <sup>3</sup> (respirable dust)
Remark	(Year of adoption 2003)
Regulatory reference	SCOEL Recommendations

##### 8.1.2. Recommended monitoring procedures

No additional information available

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### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Gloves. Wear a mask.

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Not required for normal conditions of use

Eye protection			
Type	Field of application	Characteristics	Standard
Safety goggles			EN 166

#### 8.2.2.2. Skin protection

##### Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use

##### Hand protection:

Does not require any particular or specific measures. Respect the general rules for occupational hygiene. To avoid prolonged or repeated wet contact wear impermeable gloves. To reduce the effect of hand contact apply a barrier cream.

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Off-white.
Appearance	: Powder.
Molecular mass	: 145.15 g/mol

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Odour	: No data available.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: 6 – 8
pH solution concentration	: 10 %
Viscosity, kinematic	: Not applicable
Solubility	: Water: $\approx$ 2 g/l
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 2.5 – 3 g / cm <sup>3</sup>
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

## 9.2. Other information

### 9.2.1. Information with regard to physical hazard classes

No additional information available

### 9.2.2. Other safety characteristics

Thermal decomposition : Thermal decomposition to CaSO<sub>4</sub> and H<sub>2</sub>O approx. 140°C  
Thermal decomposition to CaO and SO<sub>3</sub> approx. 1200°C

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

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### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. When working with higher temperatures (over 1200 degree Centigrade) hazardous sulphur trioxide can develop.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

#### calcium sulfate, dihydrate (10101-41-4)

LD50 oral rat	> 2000 mg/kg bodyweight (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat	> 3.26 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))

#### calcium sulfate (7778-18-9)

LD50 oral rat	> 1581 mg/kg bodyweight (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Converted value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 2.61 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Converted value, Inhalation (dust), 14 day(s))

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: 6 – 8

#### calcium sulfate, dihydrate (10101-41-4)

pH	7 (5.0 %)
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#### calcium sulfate (7778-18-9)

pH	6 – 7.6 (20 %)
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Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: 6 – 8

#### calcium sulfate, dihydrate (10101-41-4)

pH	7 (5.0 %)
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#### calcium sulfate (7778-18-9)

pH	6 – 7.6 (20 %)
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Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)  
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)  
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)  
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)  
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)  
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)  
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

#### Calcium sulfate hemihydrate

Viscosity, kinematic	Not applicable
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#### calcium sulfate (7778-18-9)

Viscosity, kinematic	Not applicable (solid)
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### 11.2. Information on other hazards

No additional information available

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### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)
Not rapidly degradable	

#### calcium sulfate, dihydrate (10101-41-4)

LC50 - Fish [1]	2980 mg/l (96 h, Lepomis macrochirus, Anhydrous form)
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#### calcium sulfate (7778-18-9)

LC50 - Fish [1]	2980 mg/l (96 h, Lepomis macrochirus, Literature study)
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#### 12.2. Persistence and degradability

#### calcium sulfate, dihydrate (10101-41-4)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

#### calcium sulfate (7778-18-9)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

#### 12.3. Bioaccumulative potential

#### calcium sulfate, dihydrate (10101-41-4)

Bioaccumulative potential	No bioaccumulation data available.
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#### calcium sulfate (7778-18-9)

Bioaccumulative potential	No bioaccumulation data available.
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#### 12.4. Mobility in soil

#### calcium sulfate (7778-18-9)

Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Endocrine disrupting properties

No additional information available

#### 12.7. Other adverse effects

No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

#### 14.6. Special precautions for user

##### Overland transport

Not applicable

##### Transport by sea

Not applicable

##### Air transport

Not applicable

##### Inland waterway transport

Not applicable

##### Rail transport

Not applicable

#### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1. EU-Regulations

###### REACH Annex XVII (Restriction List)

No REACH Annex XVII restrictions

###### REACH Annex XIV (Authorisation List)

Calcium sulfate hemihydrate is not on the REACH Annex XIV List



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### REACH Candidate List (SVHC)

Calcium sulfate hemihydrate is not on the REACH Candidate List

### PIC Regulation (Prior Informed Consent)

Calcium sulfate hemihydrate is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

### POP Regulation (Persistent Organic Pollutants)

Calcium sulfate hemihydrate is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

### Ozone Regulation (1005/2009)

Calcium sulfate hemihydrate is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

### Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

### 15.1.2. National regulations

No additional information available

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Abbreviations and acronyms:

COD	Chemical oxygen demand (COD)
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS	Chemical Abstracts Service (division of the American Chemical Society)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
CAS-No.	Chemical Abstract Service number
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value

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Abbreviations and acronyms:	
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
N.O.S.	Not Otherwise Specified
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
Pow (log)	n-octanol/water partition coefficient
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Data sources : Classification according to Regulation (EC) No. 1272/2008 [CLP]. ECHA (European Chemicals Agency). Supplier's safety documents.

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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