

Trade name: Calcii carbid in fragmentis

Substance number: 062072

Version: 6 / CH

Date revised: 27.01.2025

Replaces Version: 5 / CH

Print date: 27.01.25

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

1.1. Product identifier

Calcii carbid in fragmentis

Item No. 06207200

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

Use of the substance/preparation

industry, Reagent for analyses

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG

Industriestrasse 35

9100 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible

for this SDS

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Water-react. 1 H260

Skin Irrit. 2 H315

Eye Dam. 1 H318

STOT SE 3 H335

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements

H260	In contact with water releases flammable gases which may ignite spontaneously.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

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Precautionary statements ***

P231+P232	Handle and store contents under inert gas/.... Protect from moisture.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P334	IF ON SKIN: Immerse in cool water or wrap in wet bandages.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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 or doctor.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains Calcium oxide

2.3. Other hazards

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients *****Hazardous ingredients****Calcium oxide**

CAS No.	1305-78-8
EINECS no.	215-138-9
Registration no.	01-2119475325-36-0017
Concentration	>= 20 < 25 %
Classification (Regulation (EC) No. 1272/2008)	
	Skin Irrit. 2 H315
	Eye Dam. 1 H318
	STOT SE 3 H335

Further ingredients *****calcium carbide**

CAS No.	75-20-7
EINECS no.	200-848-3
Registration no.	01-2119494719-18-0000
Concentration	>= 50 %
Advice: [4]	
Classification (Regulation (EC) No. 1272/2008)	
	Water-react. 1 H260

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note T

Silicon dioxide, chemically prepared, amorphous

CAS No.	7631-86-9
EINECS no.	231-545-4
Registration no.	01-2119379499-16-0000 (TPR)
Concentration	>= 1 < 10 %
Advice: [4]	

Name of set of nanoform	Nanoaggregate
Particle size distribution	d10 7-15 nm
Shape and aspect ratio of	amorphous

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particles	50	to	450	m ² /g
Particle size distribution	Nanoaggregate d50 2-30		nm	
Shape and aspect ratio of particles	amorphous			
	50	to	450	m ² /g
Particle size distribution	Nanoaggregate d90 10-35		nm	
Shape and aspect ratio of particles	amorphous			
	50	to	450	m ² /g
Magnesium oxide				
CAS No.	1309-48-4			
EINECS no.	215-171-9			
Concentration	>=	1	<	10 %
Advice: [4]				

Note

[4] Voluntary information

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Do not leave casualty unattended. Remove affected person from danger area. Casualty should be kept quiet and covered up. Take off contaminated clothing and shoes immediately. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person. In case of persistent symptoms consult doctor. Adhere to personal protective measures when giving first aid

After inhalation

Ensure supply of fresh air. In the event of symptoms take medical treatment. If breathing is irregular or stopped, administer artificial respiration. Summon a doctor immediately.

After skin contact

In general the product isn't skin irritating.

After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

After ingestion

Rinse mouth thoroughly with water. Do not induce vomiting. Summon a doctor immediately.

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

Vomiting, Nausea

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Dry sand, D powder

Non suitable extinguishing media

Water, Foam, Carbon dioxide

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5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released: Carbon monoxide (CO); Carbon dioxide (CO₂); Calcium oxide

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Do not inhale explosion and/or combustion gases. Use personal protective clothing. Use self-contained breathing apparatus.

Other information

Do not inhale explosions- and combustion gases. Collect contaminated fire-fighting water separately, must not be discharged into the drains. Do not discharge into surface waters/groundwater.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep away unprotected persons. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Keep away sources of ignition.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Retain and dispose of contaminated wash water.

6.3. Methods and material for containment and cleaning up

Ensure adequate ventilation. Don't rinse away with water. Take up mechanically and collect in suitable container for disposal.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8. Clear spills immediately. Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid dust formation. Keep container tightly closed. Provide suitable exhaust ventilation at processing machines. Smoking, eating and drinking should be prohibited in application area. Do not inhale dust. Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take action to prevent static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep tightly closed in a dry and cool place. Storage rooms must be properly ventilated.

Hints on storage assembly

Keep away from water. Do not store together with: Oxidizing substances, Acids

Storage classes

Storage class according to TRGS 510	4.3	Hazardous substances that release flammable gases when in contact with water
Storage category (Switzerland)	4.3	Forms flammable gases in contact with water.

Further information on storage conditions

Keep container tightly closed.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Calcium oxide

List	SUVA	
Type	MAK	
Value	2	mg/m ³
Short term exposure limit	2	mg/m ³
Pregnancy group: S; Remarks: SSc; OAW; NIOSH		

Magnesium oxide

List	SUVA	
Type	MAK	
Value	3	mg/m ³
Pregnancy group: S; Remarks: SSc; NIOSH, s. 1.8.2		

Silicon dioxide, chemically prepared, amorphous

List	SUVA	
Type	MAK	
Value	4	mg/m ³
Pregnancy group: S; Remarks: SSc; LungenfibKT AN		

Derived No/Minimal Effect Levels (DNEL/DMEL)

calcium carbide

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	2	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Short term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	4	mg/m ³

Calcium oxide

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	4	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Repeated exposure	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	1	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	

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Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	4	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Repeated exposure	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	1	mg/m ³

Predicted No Effect Concentration (PNEC)

calcium carbide

Type of value	PNEC	
Type	Freshwater	
Conditions	Short term	
Concentration	4.62	µg/l

Type of value	PNEC	
Type	Saltwater	
Conditions	Short term	
Concentration	0.462	µg/l

Calcium oxide

Type of value	PNEC	
Type	Freshwater	
Concentration	0.37	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0.24	mg/l

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Species	Microorganisms	
Concentration	2.27	mg/l

Type of value	PNEC	
Type	Soil	
Concentration	817.4	mg/kg

8.2. Exposure controls

Exposure controls

Provide adequate ventilation.

General protective and hygiene measures

Wash hands and face before breaks and after work. Keep away from food-stuffs, beverages and feed-stocks. Remove contaminated, soaked clothing immediately and dispose of safely. Do not eat, drink or smoke during work time.

Respiratory protection

Breathing apparatus in the event of aerosol. ABEK-P2 (EU EN 143)

Hand protection

Protective gloves

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Appropriate Material nitrile rubber - NBR
 Material thickness > 0.4 mm
 Breakthrough time > 480 min
 Hand protection must comply with EN 374.
 Appropriate Material Polychloroprene
 Material thickness > 0.6 mm
 Breakthrough time > 480 min
 Hand protection must comply with EN 374.

Eye protection

Safety glasses with side protection shield; Eye protection must comply with EN 166.

Body protection

Protective clothing

Environmental exposure controls

Do not allow to enter drains or water courses.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state solid
Colour black
Odour characteristic
Melting point
 Value 2300 °C
 Pressure 1013 hPa
 Source ECHA

Boiling point or initial boiling point and boiling range

Remarks not determined

Flammability

Flammable.

Flash point

Value °C
 Remarks Not applicable

Partition coefficient n-octanol/water (log value)

log Pow 0.37

Vapour pressure

Value 0.0 mmHg
 Temperature 25 °C
 Source ECHA

Density and/or relative density

Value 2.22 g/cm³
 Temperature 20 °C
 Source ECHA

9.2. Other information**Solubility in water**

Remarks Hydrolysed

Solids content

Value 100.0 %

SECTION 10: Stability and reactivity

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10.1. Reactivity

Reactions with water and acids. Alkalis, Oxidising agents, Silvercompounds, copper (Cu)

10.2. Chemical stability

Protect from atmospheric moisture and water.

10.3. Possibility of hazardous reactions

Water. Can reakt violent with oxygen rich (fire expediting) material. Risk of explosion.

10.4. Conditions to avoid

Protect from atmospheric moisture and water. Can reakt violent with oxygen rich (fire expediting) material. Risk of explosion.

10.5. Incompatible materials

Contact with water or moisture liberates flammable gases. Acids, Bases, Oxidising agents, Silvercompounds, copper (Cu)

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity (Components)****Calcium oxide**

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 425		

calcium carbide

Species	rat		
LD50	>	2000	mg/kg

Silicon dioxide, chemically prepared, amorphous

Species	rat		
LD50		3160	mg/kg

Acute dermal toxicity (Components)**Calcium oxide**

Species	rabbit		
LD50	>	2500	mg/kg
Method	OECD 402		
Remarks	Test conducted with a similar formulation.		
Source	Calciumhydroxid		

calcium carbide

Species	rabbit		
LD50	>	2500	mg/kg

Skin corrosion/irritation (Components)**Calcium oxide**

Species	rabbit		
evaluation	irritant		

calcium carbide

evaluation	irritant		
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Serious eye damage/irritation (Components)**Calcium oxide**

Species	rabbit		
evaluation	irritant - risk of serious damage to eyes		

calcium carbide

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evaluation	irritant - risk of serious damage to eyes
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Silicon dioxide, chemically prepared, amorphous

evaluation	irritant effect possible
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Sensitization (Components)**Calcium oxide**

evaluation	non-sensitizing
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Mutagenicity (Components)**Calcium oxide**

evaluation	Information on genotoxicity in vitro available.
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Reproduction toxicity (Components)**Calcium oxide**

evaluation	No negative effects
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Carcinogenicity (Components)**Calcium oxide**

Remarks	No evidence available on carcinogenicity.
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Specific Target Organ Toxicity (STOT) (Components)**Calcium oxide**

evaluation	May cause damage to organs.
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	Organs: Respiratory tract
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Source	SCOEL
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11.2 Information on other hazards**Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

SECTION 12: Ecological information**12.1. Toxicity****Fish toxicity (Components)****Calcium oxide****calcium carbide**

LC50	>	50		mg/l
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Duration of exposure		96	h	
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calcium carbide

LOEC	>	50		mg/l
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Duration of exposure		96	h	
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calcium carbide

NOEC		50		mg/l
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Duration of exposure		96	h	
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Daphnia toxicity (Components)**Calcium oxide****calcium carbide**

EC50		4.62		mg/l
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Duration of exposure		48	h	
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Algae toxicity (Components)**Calcium oxide**

Reference substance	Calcium dihydroxide
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calcium carbide

ErC50	46		mg/l
Duration of exposure	72	h	

12.2. Persistence and degradability**General information**

No data available

12.3. Bioaccumulative potential**Partition coefficient n-octanol/water (log value)**

log Pow 0.37

12.4. Mobility in soil**General information**

There is no data available on the product apart from the information given in this subsection.

Mobility in soil (Components)**Calcium oxide**

Immobile

12.5. Results of PBT and vPvB assessment**General information**

Not applicable

Results of PBT and vPvB assessment

The product contains no PBT substances
The product contains no vPvB substances.

12.6 Endocrine disrupting properties**Endocrine disrupting properties with respect to the environment**

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects**General information / ecology**

Product is slightly hazardous to water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations for the product**

EWC waste code	No not dispose with rubbish.
EWC waste code	Should not be released into the sanitary sewer system.
Dispose of as hazardous waste.	

Disposal recommendations for packaging

Disposal in compliance with local and national regulations.

SECTION 14: Transport information

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	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	B/E		
14.1. UN number	1402	1402	1402
14.2. UN proper shipping name	CALCIUM CARBIDE	CALCIUM CARBIDE	CALCIUM CARBIDE
14.3. Transport hazard class(es)	4.3	4.3	4.3
Label			
14.4. Packing group	I	I	I
Limited Quantity	0		
Transport category	1		
14.5. Environmental hazards		no	

SECTION 15: Regulatory information

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

Water Hazard Class (Germany)

Water Hazard Class (Germany) WGK 1
 Identification number 791

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Hazard statements listed in Chapter 3

H260 In contact with water releases flammable gases which may ignite spontaneously.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H335 May cause respiratory irritation.

CLP categories listed in Chapter 3

Eye Dam. 1 Serious eye damage, Category 1
 Skin Irrit. 2 Skin irritation, Category 2
 STOT SE 3 Specific target organ toxicity - single exposure, Category 3
 Water-react. 1 Substance or mixture which in contact with water emits flammable gas, Category 1

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***

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This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.