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

1.1 Product identifier

Identification of the substance	**Cebogel OCMA**
Registration number (REACH)	the substance is exempted from the obligation to register - REACH regulation, Annex V)
EC number	215-108-5
CAS number	1302-78-9
Other means of identification	
Alternative name(s)	STANDARD BENTONITE SDS

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

Relevant identified uses	industrial use
Uses advised against	consumer uses

1.3 Details of the supplier of the safety data sheet

Cebo Holland BV
Westerduinweg 1
1976 BV IJmuiden
Netherlands

Telephone: +31 (0) 255-546262
info@cebo.com
www.cebo.com

Competent person responsible for the safety data sheet	HSEQ Department
e-mail (competent person)	msds@cebo.com

1.4 Emergency telephone number

Emergency information service	**+31 (0) 255-546262** This number is only available during the following office hours: 08:30 - 17:00

Poison centre		
Country	**Name**	**Telephone**
United Kingdom	National Poison Information Service (NPIS) For medical professionals only.	0844-8920111 (UK only)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

not required

2.3 Other hazards

Depending on the type of handling and use (e.g. grinding, drying), airborne respirable crystalline silica may be generated. Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. According to the results of its assessment, this substance is not a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance	Cebogel OCMA
EC number	215-108-5
CAS number	1302-78-9

Impurities and additives, classification acc. to EU regulation

Bentonite is a substance of Unknown or Variable composition, Complex reaction products or Biological materials (UVCB, type 4) according to REACH & CLP Regulations. .

Name of substance	Identifier	Wt%	Classification acc. to 1272/2008/EC
Crystalline silica (fine fraction)	CAS No 14808-60-7 EC No 238-878-4	≤ 1	STOT RE 1 / H372

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Brush off loose particles from skin. - Rinse skin with water/shower.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Let water be drunken in little sips (dilution effect).

4.2 Most important symptoms and effects, both acute and delayed

The acute symptoms would cause pain in the eyes because of dust. No delayed effects are anticipated if first aid treatment is applied effectively.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water, foam, alcohol resistant foam, ABC-powder, co-ordinate firefighting measures to the fire surroundings

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

nitrogen oxides (NOx), carbon monoxide (CO), carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Warning and evacuating people in the neighbourhood. Ventilate affected area. Control of dust. Avoid contact with skin and eyes. Avoid inhalation of the product. Avoid breathing dust. Special danger of slipping by leaking/spilling product.

For emergency responders

Standard equipment for firefighters. Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose it.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains. - Take up mechanically.

Advices on how to clean up a spill

Take up mechanically. Collect spillage Vacuuming or wet sweeping may be used to avoid dust dispersal.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

  Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas. Removal of dust deposits. Ground/bond container and receiving equipment. Avoid formation of dust.

- Warning

  Dust deposits may accumulate on all deposition surfaces in a technical room.

Advice on general occupational hygiene

Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

Minimise airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice

- Ventilation requirements

  Use local and general ventilation.

7.3 Specific end use(s)

If you require advice on specific uses check the Good Practice Guide referred to in section 16.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Source
GB	dust		WEL		10			EH40/2005
GB	dust		WEL		4			EH40/2005
GB	silica, crystalline	1302-78-9	WEL		0.1			EH40/2005

Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

8.2 Exposure controls

Appropriate engineering controls

Employ good industrial hygiene practice. If you require advice on specific uses check the Good Practice Guide referred to in section 16.

Individual protection measures (personal protective equipment)

Eye/face protection

Use safety goggle with side protection. EN166

Skin protection

- hand protection

  Wear protective gloves.

- type of material

  PVC: polyvinyl chloride, NR: natural rubber, latex

- other protection measures

  Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. P3 (filters at least 99,95 % of airborne particles, colour code: White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	
Physical state	solid (powder)
Colour	light grey
Odour	characteristic
Other physical and chemical parameters	
pH (value)	9 - 10.5 (water: 0.05 $^{kg}/_{l}$)
Melting point/freezing point	>450 °C
Initial boiling point and boiling range	not determined
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gas)	
Explosion limits of dust clouds	not determined
Vapour pressure	not determined
Density	2.6 $^{g}/_{cm^3}$ at 20 °C
Bulk density	1 - 1.4 $^{g}/_{cm^3}$
Solubility(ies)	
- Water solubility	<0.9 $^{mg}/_{l}$ at 20 °C
Partition coefficient	
- n-octanol/water (log KOW)	This information is not available.
Auto-ignition temperature	not determined
Viscosity	not relevant (solid matter)
Explosive properties	none
Oxidising properties	none

9.2 Other information

Of no significance.

SECTION 10: Stability and reactivity

10.1 Reactivity

this material is not reactive under normal ambient conditions

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Staubentwicklung gering halten und Verteilung durch Wind verhindern, beim Be- und Entladen. Behälter geschlossen halten und verpackte Produkte zu speichern, so dass versehentliche Bersten zu verhindern.

10.5 Incompatible materials

Do not store together with materials that may be affected by dust.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification according to GHS (1272/2008/EC, CLP)

This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.
This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

Acute toxicity

Shall not be classified as acutely toxic.

Exposure route	Endpoint	Value	Species	Method	Notes
oral	LD50	>2000 $^{mg}/_{kg}$	rat	OECD Guideline 420	
inhalation: dust/mist	LC50	>5.27 $^{mg}/_{l}$/4h	rat	OECD Guideline 436	

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin. Bentonite is not irritating to skin (in vivo, OECD 404, rabbit). .

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant. Bentonite is not irritating to eye (in vivo, OECD 405, rabbit). Bentonite is classified as a mild irritant to eyes (according to the modified Kay & Calandra criteria).

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser. Bentonite is not a skin sensitiser in accordance with the local lymph node assay (OECD 429, mouse) .

Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.

- The classification as germ cell mutagenic is based on

In vitro tests (OECD 471, 473 and 476) negative.

- The classification as carcinogenic is based on

Sepiolite was evaluated by IARC as class 3 ("Cannot be classified as to carcinogenicity to humans"). Based on read-across with sepiolite, bentonite was assessed as non-carcinogenic.
Therefore classification of bentonite for carcinogenicity is not warranted.
. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)
In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003).
So there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional risk management measures where required (see section 16 below).

- The classification as a reproductive toxicant is based on

Bentonite is not toxic to reproduction.
Two developmental studies are available:
Abdel-Wahhab et al (1999)
Bentonite had no effect on maternal and fetal parameters at a dietary level of 0.5% w/w (equivalent to 250 mg/kg bw).
Wiles et al (2004)
2% calcium montmorillonite or sodium montmorillonite in the diet had no effect on maternal weight or maternal organ weights, litter weight, embryonic implantations, or resorptions
In both animal studies no effects on maternal/foetal parameters were detected.
Classification for reproductive toxicity is not warranted.

Specific target organ toxicity (STOT)

Shall not be classified as a specific target organ toxicant.

- Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

- Specific target organ toxicity - repeated exposure

STOT Oral:
Short-term repeated dose toxicity study (28 days) and sub-chronic toxicity study (90 day) on mices have been conducted with bentonite.
Bentonite fed to mice at 10%, 25%, or 50% for 61 days. Hepatoma was seen in mice receiving a diet of 50% bentonite. This was due to bentonite being a base-exchange silicate and thus removing choline from the content of the intestine > 200 day feeding study of 50% bentonite. Hepatomas developed in 11 of 12 mice. The livers of mice on 50/50 bentonite-basal diet were severely damaged.
The liver damage noted in the group ingesting bentonite is consistent with that expected during prolonged choline deficiency, a base-exchange silicate, is advanced as a partial explanation for the development of the hepatomas in the mice in these experiments
Effect seen on livers. However study were conducted in mice at very high concentration and effects seen are considered secondary due to disrupture of digestion.
Therefore, classification of bentonite for toxicity upon prolonged exposure by oral route is not warranted.

STOT Inhalation:
Animal and in vitro data indicate a difference between crystalline quartz and the quartz-content of bentonite. A quantitative assessment based on the animal data is not possible as no relevant repeated-dose inhalation study is available.
Human data is restricted to case reports that suggest a relationship between high bentonite exposure (exposures in the early 20th century without state-of-the-art protective measures and maximum dust exposure limits). The link between bentonite exposure and silicosis is not considered to be demonstrated sufficiently.
With regards to classification and labelling of bentonite, the evidence is not considered adequate to come to a conclusion on specific classification of bentonite with specific target organ toxicity upon repeated exposure (STOT-RE). The lung can be affected at repeated high-dose exposure which has been suggested by case reports in humans. Whether this effect occurs only at concentrations overloading the lung's clearance capacity and is not relevant to humans since establishment of general dust exposure limits.
Therefore, classification of bentonite for toxicity upon prolonged exposure by inhalation is not warranted. Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica. .

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)

Endpoint	Value	Species	Exposure time
LC50	16,000 mg/l	rainbow trout	96 hours
EC50	81.6 mg/l	common carp	96 hours
EC50	24.8 mg/l	aquatic vertebrates	48 hours
EC50	>100 mg/l	microorganisms	48 hours
LC50 (24h): 2800-3200 mg/l (black bass, warmouth bass, blue gill and sunfish)			
LC50 (24h): >500 mg/l (C. Dubia, H. Limbata)			

Aquatic toxicity (chronic)

Endpoint	Value	Species	Exposure time
LC50		fish	d
EC50	>100 mg/l	freshwater algae	72 h

12.2 Persistence and degradability

The study does not need to be conducted because the substance is inorganic.

12.3 Bioaccumulative potential

The study does not need to be conducted because the substance is inorganic.

12.4 Mobility in soil

Insoluble.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.

Endocrine disrupting potential

Not listed. None of the ingredients are listed.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Recycling/reclamation of other inorganic materials.

Sewage disposal-relevant information

Do not empty into drains. Please consider the relevant national or regional provisions.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1	UN number	(not subject to transport regulations)
14.2	UN proper shipping name	not relevant
14.3	Transport hazard class(es)	
	Class	-
14.4	Packing group	not relevant
14.5	Environmental hazards	none (non-environmentally hazardous acc. to the dangerous goods regulations)

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

- Restrictions according to REACH, Annex XVII

not listed

- List of substances subject to authorisation (REACH, Annex XIV)

not listed
None of the ingredients are listed.

- Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

not listed

- Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

- Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)
  not listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits, Table 1: List of approved workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant)
PBT	Persistent, Bioaccumulative and Toxic
ppm	parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
STOT RE	specific target organ toxicity - repeated exposure
vPvB	very Persistent and very Bioaccumulative

Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H372	causes damage to organs through prolonged or repeated exposure

Training advice

A multi-sectoral social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it was signed on 25 April 2006. This autonomous agreement, which receives the European Commission's financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25 October 2006. The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from http://www.nepsi.eu and provide useful information and guidance for the handling of products containing respirable crystalline silica. Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers, .

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product. 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.