



SAFETY DATA SHEET

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

Product identifier

Trade name of the substance VOLTEX® GRANULES

Identification Number 1302-78-9

Registration number -

Synonyms Smectite * Bentonite * Bentonite, Sodian * Bentonite, Calcian * Sodium-activated Bentonite * Montmorillonite

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

Identified uses Bentonite has a variety of uses. It can be used as a rheology modifier, binding agent, adsorbent, hydraulic-barrier, and filler.

Uses advised against None known.

Details of the supplier of the safety data sheet

Supplier

Company name CETCO EUROPE
Address Birch House, Scotts Quays
Birkenhead, Merseyside CH41 1FB
England
GB

Telephone General Information +44 (151) 606-5900

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Contact person EHS Department

Emergency telephone number Emergency +1 (703) 527-3887

Section 2: Hazards identification

Classification of the substance or mixture

Bentonite with less than 10% w/w crystalline silica does not meet the criteria for classification as hazardous according to EC Regulation 1272/2008 and Directive 67/548/EC as amended. This product contains less than 1% w/w RCS (respirable crystalline silica) as determined by the SWERF method. The respirable crystalline silica content can be measured using the SWERF method.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This substance does not meet the criteria for classification according to Directive 67/548/EEC as amended.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary

Physical hazards Not classified for physical hazards.

Health hazards Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.

Environmental hazards Not classified for hazards to the environment.

Specific hazards Not applicable

Main symptoms None known.

Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: BENTONITE

Identification Number 1302-78-9

Hazard statements The substance does not meet the criteria for classification.

Precautionary statements

Prevention Not available.

Response	Not available.
Storage	Not available.
Disposal	Not available.
Supplemental label information	Not applicable.
Other hazards	Not assigned.

Section 3: Composition/information on ingredients

Substance

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
BENTONITE	100	1302-78-9 215-108-5	-	-	
Classification:					
DSD:	-				
CLP:	-				

Bentonite is a UVCB substance sub-type 4. The purity of the product is 100 % w/w. Bentonite is composed mainly of smectite group minerals but the composition is varied, as expected for a UVCB substance, and other mineral constituents will be present in small and varying amounts. These minor constituents are not relevant for classification and labelling.

Constituents

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Calcium carbonate		471-34-1 207-439-9	-	-	-
Cristobalite	< 2	14464-46-1 238-455-4	-	-	-
Quartz	< 8	14808-60-7 238-878-4	-	-	-
SMECTITE GROUP MINERALS		1318-93-0 215-288-5	-	-	-

Composition comments The purity of the product is 100% w/w. Impurities are not applicable for a UVCB substance.

Section 4: First aid measures

General information No hazards which require special first aid measures. Provide general supportive measures and treat symptomatically.

Description of first aid measures

Inhalation	No specific first aid measures noted. Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	No specific first aid measures noted. Wash skin with soap and water. Get medical attention if irritation develops and persists.
Eye contact	No specific first aid measures noted. Flush thoroughly with water. If irritation occurs, get medical assistance.
Ingestion	No specific first aid measures noted. Rinse mouth thoroughly. Get medical attention if any discomfort occurs.

Most important symptoms and effects, both acute and delayed Dust in the eyes will cause irritation.

Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically.

Section 5: Firefighting measures

General fire hazards This material will not burn.

Extinguishing media

Suitable extinguishing media Use any media suitable for the surrounding fires.

Unsuitable extinguishing media	Not applicable, non-combustible.
Special hazards arising from the substance or mixture	None known. The product itself does not burn.
Advice for firefighters	
Special protective equipment for firefighters	None known.
Special firefighting procedures	Material can be slippery when wet.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.
For emergency responders	Avoid generation and spreading of dust. Avoid inhalation of dust. Wear a dust mask if dust is generated above exposure limits. Material can be slippery when wet.
Environmental precautions	No special environmental precautions required. Prevent further leakage or spillage if safe to do so.
Methods and material for containment and cleaning up	Avoid the generation of dusts during clean-up. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container.
Reference to other sections	For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

Precautions for safe handling	Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.
Conditions for safe storage, including any incompatibilities	Store in a dry area. Keep the container dry. No special restrictions on storage with other products.
Specific end use(s)	If you require advice on specific uses, please contact your supplier.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Constituents	Type	Value	Form
INERT OR NUISANCE DUSTS (SEQ250)	TWA	4 mg/m ³	Respirable dust.
		10 mg/m ³	Inhalable dust.

EU, 91/322/EEC, 2000/39/EC, 2006/15/EC

No exposure limits noted for the ingredient(s).

Biological limit values

EU, 91/322/EEC, 2000/39/EC, 2006/15/EC

No biological exposure limits noted for the ingredient(s).

United Kingdom

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures	Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.
DNEL	Not available.
PNEC	Not available.

Exposure controls

Appropriate engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.
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Individual protection measures, such as personal protective equipment

General information	Applicable for industrial settings only:
Eye/face protection	Wear dust-resistant safety goggles where there is danger of eye contact.
Skin protection	
- Hand protection	No protection is ordinarily required under normal conditions of use.

- Other	No special protective equipment required. Normal work clothing (long sleeved shirts and long pants) is recommended.
Respiratory protection	Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.
Thermal hazards	Not applicable
Hygiene measures	Use good industrial hygiene practices in handling this material.
Environmental exposure controls	Contain spills and prevent releases and observe national regulations on emissions.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Lump, granular or fine powder.
Physical state	Solid.
Form	Various.
Colour	Various.
Odour	None.
Odour threshold	Not applicable.
pH	8.5 - 11
Melting point/freezing point	> 450 °C (> 842 °F) / Not applicable.
Boiling point, initial boiling point, and boiling range	Not applicable.
Flash point	Not applicable.
Auto-ignition temperature	Not applicable.
Flammability (solid, gas)	This product is not flammable.
Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Oxidising properties	None.
Explosive properties	Not explosive
Explosive limit	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Relative density	2.6 g/cm ³
Solubility (water)	< 0.9 mg/l
Partition coefficient (n-octanol/water)	Not applicable.
Decomposition temperature	> 500 °C (> 932 °F)
Bulk density	0.9 - 1.4 g/cm ³
Pour point	Not applicable.
Viscosity	Not applicable.
Viscosity temperature	Not applicable.
VOC (Weight %)	0 %
Percent volatile	0 %
Other data	
Explosivity	Not applicable.
Flame extension	Not applicable.
Flammability	Not applicable.
Flammability (flash back)	Not applicable.
Flammability (Train fire)	Not applicable.
Flammability class	Not applicable.

Molecular formula	UVCB Substance
Molecular weight	Not applicable.
pH in aqueous solution	8.5 - 11
Specific gravity	Not applicable.
Other information	No relevant additional information available.

Section 10: Stability and reactivity

Reactivity	None known.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Will not occur.
Conditions to avoid	Moisture.
Incompatible materials	None known.
Hazardous decomposition products	None.

Section 11: Toxicological information

General information Bentonite with less than 10% w/w crystalline silica does not meet the criteria for classification as hazardous according to EC Regulation 1272/2008 and Directive 67/548/EC as amended.

Information on likely routes of exposure

Ingestion	Not classified.
Inhalation	Not classified. Inhalation of dusts may cause respiratory irritation.
Skin contact	Not classified.
Eye contact	Not classified. Dust in the eyes will cause irritation.

Symptoms None known.

Information on toxicological effects

Acute toxicity Not classified.

Product

BENTONITE (1302-78-9)

Test results

Acute Inhalation LC50 Rat: > 5.27 mg/l 4 hr OECD 436
Acute Oral LD50 Rat: > 2000 mg/kg OECD 425

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Not classified. Mild irritant to eyes (according to the modified Kay & Calandra criteria)

Respiratory sensitisation Not classified.

Skin sensitisation Not classified.

Germ cell mutagenicity Not classified.

Carcinogenicity The product does not meet the criteria for classification as hazardous according to EC Regulation 1272/2008 and Directive 67/548/EC as amended. The product contains less than 1% w/w RCS (respirable crystalline silica).

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Mixture versus substance information Bentonite is a UVCB substance sub-type 4. The purity of the product is 100 % w/w. Bentonite is composed mainly of smectite group minerals but the composition is varied, as expected for a UVCB substance, and other mineral constituents will be present in small and varying amounts. These minor constituents are not relevant for classification and labelling.

Other information No relevant additional information available.

Section 12: Ecological information

Toxicity

Product

BENTONITE (1302-78-9)

Test results

EC50 Coon stripe shrimp (*Pandalus danae*): 24.8 mg/l 96 hours

Product**Test results**

EC50 Daphnia: > 100 mg/l 48 hours
EC50 Dungeness or edible crab (Cancer magister): 81.6 mg/l 96 hours
EC50 Freshwater algae: > 100 mg/l 72 hours
LC50 Freshwater fish: 16000 mg/l 96 hours
LC50 Marine water fish: 2800 - 3200 mg/l 24 hours
LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss): 19000 mg/l 96 hours

Persistence and degradability	Not relevant for inorganic substances
Bioaccumulative potential	Will not bio-accumulate.
Mobility	The product has poor water-solubility.
Environmental fate - Partition coefficient	Not applicable
Mobility in soil	Bentonite is almost insoluble and thus presents a low mobility in most soils.
Results of PBT and vPvB assessment	Not applicable
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13: Disposal considerations**Waste treatment methods**

Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Store containers and offer for recycling of material when in accordance with the local regulations.
EU waste code	Not available.
Disposal methods/information	Dispose in accordance with all applicable regulations.

Section 14: Transport information**ADR**

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available.

Section 15: Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture****EU Regulations****Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I**

Not listed.

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V

Not listed.

Commission Decision 2000/479/EC on the implementation of a European pollutant emission register (EPER)

Not listed.

Regulation (EC) No. 1907/2006, Article 59(1). Candidate List

Not listed.

National regulations

Not available.

Chemical safety assessment

No Chemical Safety Assessment has been carried out. Bentonite is exempted from REACH registration in accordance with Annex V.7. A hazard assessment has been conducted under the umbrella of the European Bentonite Association (EUBA) and the outcome was that bentonite is not a hazardous substances. Therefore, in absence of identified hazard, the substance is safe and presents no risk.

Section 16: Other information

List of abbreviations

SWERF = Size Weighted Respirable Fraction methodology is a scientific method developed to quantify the content of respirable particles within a bulk product. All details about the SWERF method are available at www.crystallinesilica.eu.

UVCB = a substance of Unknown or Variable composition, Complex reaction products or Biological materials

References

For any information on literature references or toxicity/ecotoxicity studies, please contact the supplier.

Information on evaluation method leading to the classification of mixture

Bentonite with less than 10% w/w crystalline silica does not meet the criteria for classification as hazardous according to EC Regulation 1272/2008 and Directive 67/548/EC as amended. For any information on literature references or toxicity/ecotoxicity studies, please contact the supplier.

Full text of any statements or R-phrases and H-phrases under Sections 2 to 15

None.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Training information

Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Issued by

EHS Department

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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