

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

<b>Name of the substance</b>	SALINE SEAL®
<b>Identification number</b>	1302-78-9 (CAS number)
<b>Registration number</b>	-
<b>Synonyms</b>	Smectite * Bentonite * Bentonite, Sodian * Bentonite, Calcian * Sodium-activated Bentonite * Montmorillonite
<b>Issue date</b>	20-November-2014
<b>Version number</b>	01

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

<b>Identified uses</b>	Bentonite has a variety of uses. It can be used as a rheology modifier, binding agent, adsorbent, hydraulic-barrier, and filler.
<b>Uses advised against</b>	None known.

**1.3. Details of the supplier of the safety data sheet****Supplier**

<b>Company name</b>	CETCO-Poland,CETCO sp zo.o.S.K.A, an MTI Company
<b>Address</b>	Korpele 13A-Strefa 12-100 Szczytno PL
<b>Telephone</b>	General Information +48 0 89 624 7300
<b>e-mail</b>	safety.data@amcol.com
<b>Contact person</b>	EHS Department

**1.4. Emergency telephone number**

<b>United Kingdom</b>	44 8 08 189 0979
<b>Europe</b>	1 760 476 3961

**SECTION 2: Hazards identification****2.1. 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**

<b>Physical hazards</b>	Not classified for physical hazards.
<b>Health hazards</b>	Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.
<b>Environmental hazards</b>	Not classified for hazards to the environment.
<b>Specific hazards</b>	Not applicable.
<b>Main symptoms</b>	None known.

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

<b>Contains:</b>	BENTONITE
<b>Hazard pictograms</b>	None.
<b>Signal word</b>	None.
<b>Hazard statements</b>	The substance does not meet the criteria for classification.

**Precautionary statements****Prevention**

P102 Keep out of reach of children.  
P103 Read label before use.

#### Response

P101 If medical advice is needed, have product container or label at hand.

#### Storage

Not available.

#### Disposal

Not available.

#### Supplemental label information

None.

#### 2.3. Other hazards

None known.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

##### General information

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

##### Constituents

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

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.

##### 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.

#### 4.1. 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.

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

Dust in the eyes will cause irritation.

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

Provide general supportive measures and treat symptomatically.

## SECTION 5: Firefighting measures

<b>General fire hazards</b>	This material will not burn.
<b>5.1. Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Use any media suitable for the surrounding fires.
<b>Unsuitable extinguishing media</b>	Not applicable, non-combustible.
<b>5.2. Special hazards arising from the substance or mixture</b>	None known. The product itself does not burn.
<b>5.3. Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	None known.
<b>Special fire fighting procedures</b>	Material can be slippery when wet.

## SECTION 6: Accidental release measures

<b>6.1. Personal precautions, protective equipment and emergency procedures</b>	
<b>For non-emergency personnel</b>	No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.
<b>For emergency responders</b>	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.
<b>6.2. Environmental precautions</b>	No special environmental precautions required. Prevent further leakage or spillage if safe to do so.
<b>6.3. Methods and material for containment and cleaning up</b>	Avoid the generation of dusts during clean-up. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container.
<b>6.4. Reference to other sections</b>	For personal protection, see section 8. For waste disposal, see section 13.

## SECTION 7: Handling and storage

<b>7.1. Precautions for safe handling</b>	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.
<b>7.2. Conditions for safe storage, including any incompatibilities</b>	Store in a dry area. Keep the container dry. No special restrictions on storage with other products.
<b>7.3. Specific end use(s)</b>	If you require advice on specific uses, please contact your supplier.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### UK. EH40 Workplace Exposure Limits (WELs)

Constituents	Type	Value	Form
INERT OR NUISANCE DUSTS (CAS SEQ250)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Recommended monitoring procedures</b>	Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.
<b>Derived no-effect level (DNEL)</b>	Not available.
<b>Predicted no effect concentrations (PNECs)</b>	Not available.

### 8.2. Exposure controls

<b>Appropriate engineering controls</b>	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

<b>General information</b>	Applicable for industrial settings only:
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<b>Eye/face protection</b>	Wear dust-resistant safety goggles where there is danger of eye contact.
<b>Skin protection</b>	
- <b>Hand protection</b>	No protection is ordinarily required under normal conditions of use.
- <b>Other</b>	No special protective equipment required. Normal work clothing (long sleeved shirts and long pants) is recommended.
<b>Respiratory protection</b>	Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.
<b>Thermal hazards</b>	Not applicable.
<b>Hygiene measures</b>	Use good industrial hygiene practices in handling this material.
<b>Environmental exposure controls</b>	Contain spills and prevent releases and observe national regulations on emissions.

## SECTION 9: Physical and chemical properties

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

<b>Appearance</b>	Lump, granular or fine powder.
<b>Physical state</b>	Solid.
<b>Form</b>	Various.
<b>Colour</b>	Various.
<b>Odour</b>	None.
<b>Odour threshold</b>	Not applicable.
<b>pH</b>	8.5 - 11
<b>Melting point/freezing point</b>	> 450 °C (> 842 °F) / Not applicable.
<b>Initial boiling point and boiling range</b>	Not applicable.
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	This product is not flammable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not applicable.
<b>Flammability limit - upper (%)</b>	Not applicable.
<b>Vapour pressure</b>	0 kPa at 25 °C Not applicable.
<b>Vapour density</b>	Not applicable.
<b>Relative density</b>	2.6 g/cm <sup>3</sup>
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	< 0.9 mg/l
<b>Solubility (other)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not applicable. Not applicable.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition temperature</b>	> 500 °C (> 932 °F)
<b>Viscosity</b>	Not applicable.
<b>Viscosity temperature</b>	Not applicable.
<b>Explosive properties</b>	Not explosive
<b>Oxidizing properties</b>	None.

### 9.2. Other information

<b>Bulk density</b>	0.9 - 1.4 g/cm <sup>3</sup>
<b>Explosive limit</b>	Not applicable.
<b>Explosivity</b>	Not applicable.
<b>Flame extension</b>	Not applicable.
<b>Flammability</b>	Not applicable.
<b>Flammability (flash back)</b>	Not applicable.
<b>Flammability (Heat of combustion)</b>	Not applicable.

<b>Flammability (Train fire)</b>	Not applicable.
<b>Flash point class</b>	Not flammable
<b>Molecular formula</b>	UVCB Substance
<b>Molecular weight</b>	Not applicable.
<b>Percent volatile</b>	0 %
<b>pH in aqueous solution</b>	8.5 - 11
<b>Specific gravity</b>	Not applicable.
<b>VOC (Weight %)</b>	0 %

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	None known.
<b>10.2. Chemical stability</b>	Stable at normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	Will not occur.
<b>10.4. Conditions to avoid</b>	Moisture.
<b>10.5. Incompatible materials</b>	None known.
<b>10.6. Hazardous decomposition products</b>	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

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

**Symptoms** None known.

### 11.1. Information on toxicological effects

**Acute toxicity** Not classified.

<b>Product</b>	<b>Species</b>	<b>Test results</b>
SALINE SEAL® (CAS 1302-78-9)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	> 5.27 mg/l, 4 hrOECD 436
<i>Oral</i>		
LD50	Rat	> 2000 mg/kgOECD 425
<b>Skin corrosion/irritation</b>	Not classified.	
<b>Serious eye damage/eye irritation</b>	Not classified. Mild irritant to eyes (according to the modified Kay & Calandra criteria)	
<b>Respiratory sensitisation</b>	Not classified.	
<b>Skin sensitisation</b>	Not classified.	
<b>Germ cell mutagenicity</b>	Not classified.	
<b>Carcinogenicity</b>	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).	
<b>Reproductive toxicity</b>	Not classified.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not available.	
<b>Mixture versus substance information</b>	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** Not available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Product		Species	Test results
BENTONITE (CAS 1302-78-9)			
Crustacea	EC50	Daphnia	> 100 mg/l, 48 hours
Other	EC50	Freshwater algae	> 100 mg/l, 72 hours
	LC50	Freshwater fish	16000 mg/l, 96 hours
		Marine water fish	2800 - 3200 mg/l, 24 hours
<b>Aquatic</b>			
Crustacea	EC50	Coon stripe shrimp ( <i>Pandalus danae</i> )	24.8 mg/l, 96 hours
		Dungeness or edible crab ( <i>Cancer magister</i> )	81.6 mg/l, 96 hours
Fish	LC50	Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> )	19000 mg/l, 96 hours

**12.2. Persistence and degradability** Not relevant for inorganic substances

**12.3. Bioaccumulative potential** Will not bio-accumulate.

**Partition coefficient n-octanol/water (log Kow)** Not applicable.

**Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** Bentonite is almost insoluble and thus presents a low mobility in most soils.

**Mobility in general** The product has poor water-solubility.

**12.5. Results of PBT and vPvB assessment** Not applicable.

**12.6. 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

### 13.1. 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.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I**

Not listed.

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II**

Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

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

Not listed.

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

Not listed.

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

Not listed.

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

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA**

Not listed.

**Authorisations**

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

**Restrictions on use**

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work**

Not listed.

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding**

Not listed.

**Other EU regulations**

**Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances**

Not listed.

**Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

Not listed.

**Directive 94/33/EC on the protection of young people at work**

Not listed.

**National regulations**

Not available.

**15.2. 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 Relevant Fine 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](http://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.

<b>Full text of any statements or R-phrases and H-statements under Sections 2 to 15</b>	None.
<b>Revision information</b>	None.
<b>Training information</b>	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.
<b>Issued by</b>	EHS Department 2870 Forbs Avenue Hoffman Estates, IL 60192 +1-847-851-1500
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