



Material Safety Data Sheet Bentonite

Edition: 01/03/2014
In compliance with Regulation (EC) No. 453/2010

1) Identification of substance/preparation and of the company undertaking

1.1) Product Identifier

Material	Bentonite
Synonyms	Wyoming Bentonite; Sodium Bentonite; Calcium Bentonite; Bentonite Fine
Product form	Substance
EC No	215-108-5
CAS No	1302-78-9
REACH registration No	Exempt
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1.2) Relevant identified uses of the substance or mixture and uses advised against

1.2.1) Relevant identified uses

Use of the substance/preparation:
Adsorbent
Cementitious product industry
Rheology modifier
Binding agents

1.2.2) Uses advised against

None
Full text of use descriptors: see section 16.

2) Hazard Identification

2.1) Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Physical and chemical hazards: Not classified
Human health: Not classified
Environment: Not classified

Full text of H-phrases: see section 16

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

Not classified Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2) Label elements

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

EC No: 215-108-5

No pictogram required.

2.3) Other hazards

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

3) Composition/Information on ingredients

3.1) Substances

Name	Product Identifier	%	Classification according to Directive 67/548/EEC
Bentonite	(CAS No.) 1302-78-9 (EC no) 215-108-5	>93	Not classified

Name	Product Identifier	%	Classification according to Regulation (EC) No. 1272/2008 (CLP)
Quartz	(CAS No.) 14808-60-7 (EC no) 238-878-4	<2	Not classified

Full text of R-, H- and EUH-phrases: see section 16

REACH Registration number: Exempt

4) First Aid Measures

4.1) Description of first aid measures

First-aid measures after inhalation: Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

First-aid measures after ingestion: Rinse mouth thoroughly. Get medical attention if any discomfort continues.

First-aid measures after skin contact: Wash skin with soap and water. Get medical attention if irritation persists after washing.

First-aid measures after eye contact: Make sure to remove any contact lenses from the eyes before rinsing. Rinse eye with water immediately. Get medical attention if any discomfort continues.

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

Inhalation: No specific symptoms noted.
Ingestion: No specific symptoms noted.
Skin contact: No specific symptoms noted.
Eye contact: No specific symptoms noted.

4.3) Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5) Firefighting Measures

5.1) Extinguishing media

Suitable extinguishing media: Powder. CO2. Sand.

Unsuitable extinguishing media: None.

5.2) Special hazards arising from the substance or mixture

Fire hazard: Non-combustible.

Explosion hazard: No explosive properties known.

Reactivity: Stable under normal conditions of handling and storage.

5.3) Advice for firefighters

Protection during firefighting: No specific firefighting procedures given.

Accidental Release Measures

6.1) Personal precautions, protective equipment and emergency procedures

General measures: Keep public away from danger area. See section 8.2.

6.1.1) For non-emergency personnel

No additional information available

6.1.2) For emergency responders

No additional information available

6.2) Environmental precautions

Prevent entry to sewers and soil. Notify authorities if product enters sewers or public waters

6.3) Methods and material for containment and cleaning up

Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal.

Avoid dust production.

6.4) Reference to other sections

See section 8 and 13 for more information.

7) Handling and Storage

7.1) Precautions for safe handling

Precautions for safe handling: Do not breathe dust. Wash hands plentifully and other exposed areas with water after handling. Remove contaminated clothing and shoes. Wash clothing before re-using.

Packagings: even those that have been emptied, will retain product residue. Always obey safety warnings and handle empty packagings as if they were full. Avoid all contact with this substance.

Hygiene measures: When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Remove contaminated clothing and shoes.

7.2) Conditions for safe storage, including any incompatibilities

Storage conditions: Store in dry, cool, well-ventilated area. Keep away from food, drink and animal feeding stuffs.

Incompatible products: not known

7.3) Specific end use(s)

The identified uses for this product are detailed in section 1.2

8) Exposure Controls/Personal Protection#

8.1) Control Parameters

Country	Name	STD	TWA-8hrs	STEL-15 mins	Notes
United Kingdom	Quartz	WEL	0.1 mg/m ³		

WEL: Workplace exposure limit

Ingredients comments:

Dust contains respirable silica. Prolonged and/or massive inhalation of respirable silica dust may cause lung fibrosis. Commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable dust should be monitored and controlled. The product should be handled using methods and techniques that minimise or eliminate dust generation. The 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 "Size-Weighted Respirable Fraction – SWERF" method. All details about the SWERF method are available at www.crystallinesilica.eu

8.2) Exposure controls

Appropriate engineering controls: Use as far as possible in a closed system. Provide a regular control of the atmosphere. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Local exhaust and general ventilation must be adequate to meet exposure standards. Please refer to the annex (exposure scenarios).

Hand protection: Use gloves resistant to chemical products corresponding to EN 374:3. Take advice to gloves' manufacturer.

Eye protection: Wear safety glasses with side shields according EN 166.

Skin and body protection: Wear closed protective clothing.

Respiratory protection: Use respiratory protection mask according to EN 140 or EN 405 with filter type P3 according to EN 143:2000 or FFP3 according to EN 149:2001.

Environmental exposure controls: Avoid release to the environment.

9) Physical/Chemical Properties

Physical state	Powder.
Colour	Grey/green/white.
Odour	odourless.
Odour threshold	Not applicable
pH	9 – 10
Relative evaporation rate (butylacetate=1)	No data available
Melting point	>450 °C
Freezing point	No data available
Boiling point	No data available
Flash point	Not flammable
Self ignition temperature	Not applicable
Decomposition temperature	No data available
Flammability (solid, gas)	Not flammable
Vapour pressure	Negligible.
Relative vapour density at 20 °C	No data available
Relative density	2.7
Density	No data available
Solubility	Insoluble in water
Log Pow	Not applicable
Log Kow	Not applicable
Viscosity, kinematic	Not applicable
Viscosity, dynamic	Not applicable
Explosive properties	Not explosive.
Oxidising properties	Non-oxidizing material according to EC criteria.
Explosive limits	Not applicable

9.2) Other Information

No additional information available

10) Stability/Reactivity

10.1) Reactivity

No specific reactivity hazards associated with this product.

10.2) Chemical stability

Stable under normal conditions of handling and storage.

10.3) Possibility of hazardous reactions

Not relevant

10.4) Conditions to avoid

No specific conditions are likely to result in a hazardous situation.

10.5) Incompatible materials

No specific, or groups of materials, are likely to react to produce a hazardous situation.

10.6) Hazardous decomposition products

None under normal circumstances.

11) Toxicological Information**11.1) Information on toxicological effects**

Other health effects: This substance has no evidence of carcinogenic properties.

Acute Toxicity

Acute toxicity (Oral LD50): Not relevant

Acute toxicity (Dermal LD50): Not relevant

Inhalation: Dust in high concentrations may irritate the respiratory system.

Ingestion: May cause discomfort if swallowed.

Skin contact: Powder may irritate skin.

Eye contact: Particles in the eyes may cause irritation and smarting.

12) Ecological Information

Ecotoxicity: Not regarded as dangerous for the environment.

12.1) Acute fish Toxicity

Not considered toxic to fish.

12.2) Persistence and degradability

This product is not readily biodegradable.

12.3) Bio-accumulative potential

The product is not bioaccumulating.

12.4) Mobility in soil

Not relevant, due to the form of the product.

12.5) Results of PBT and vPvB assessment

This substance/mixture does not meet the PBT or vPvB criteria of REACH, annex XIII

12.6) Other adverse effects

None known.

13) Disposal Consideration

13.1) Waste treatment methods

Waste treatment methods: Dispose of this material and residues in accordance with local authority requirements.

Additional information: Empty packaging can have residues or dusts and are subject to proper waste disposal, as above.

Ecology - waste materials: See the European waste catalogue.

14) Transport Information

14.1) UN number

The product is not covered by international regulation on transport of dangerous goods (IMDG, IATA, ADR/RID).

14.2) UN proper shipping name

Not classified for transportation.

14.3) Transport hazard class(es)

Not classified for transportation.

14.4) Packing group

Not classified for transportation.

14.5) Environmental hazards

Other information: Not environmental hazards known with this product.

14.6) Special precautions for user

Not classified for transportation.

14.7) Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15) Regulatory Information

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

Approved code of practice: Classification and labelling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.

Guidance notes: Workplace Exposure Limites EH40.

EU Legislation:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulations (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2) Chemical Safety Assessment.

Not applicable. No chemical safety assessment has been carried out.

16) Other Information

Abbreviations and acronyms:

Indication of changes: according to Regulation (EC) No. 1907/2006 (REACH) with it's amendment Regulation (EC) No 453/20101

Data sources: Reach dossier.

Abbreviations and acronyms:

ADN: European Agreement concerning international carriage of Dangerous goods by Inland waterways

ADR: European Agreement concerning international carriage of Dangerous goods by Road

AF: Assessment factor

BCF: Bioconcentration factor

Bw: Body weight

CAS: Chemical Abstracts Service

CLP: Classification, labelling, packaging

CSR: Chemical Safety Report

DMEL: Derived maximum effect level

DNEL: Derivative No effect Level

EC: European Community

ELV: Emission limit values

EN: European Norm

EUH: European Hazard Statement

EWC: European Waste catalogue

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods

LC50: Median lethal concentration

LD50: Median lethal dose
NOAEL: No-observed-adverse-effect-level
NOEC: No observed effect concentration
NOEL: No observed effect level
OEL: Operator exposure level
PBT: Persistent, bioaccumulative, Toxic
PEC: Predicted effect level
PNEC: Predicted No effect Concentration
REACH: Registration, evaluation and autorisation of chemicals
RID: Regulations concerning the international carriage of dangerous goods by rail
STEL: Short Term Exposure Limit
TWA: Time weighted average vPvB: Very persistent, very bioaccumulative.

Training advice: None.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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