SAFETY DATA SHEET- WHITE BENTONITE

According to regulation (EC) No 2020/878

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

1.1 Product Identifier

White Bentonite

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

Use of the substance/mixture

Primarily added to clay bodies and glazes to improve plasticity.

1.3 Details of the supplier of the safety data sheet

Valentine Clays LTD

Valentine Way

Stoke on Trent

ST4 2FJ

t: +44 (0)1782 271200

e: sales@valentineclays.co.uk

w: www.valentineclays.co.uk

1.4 Emergency Telephone Number

+44 (0)1782 271200

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

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

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

Hazard Summary- Material can be slippery when wet. Exposure to powder or dusts may be irritating to eyes, nose and throat.

2.2 Label Elements

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

Contains- BENTONITE

Hazard pictograms- None

Signal Word- None.

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

Precautionary Statements:

Prevention- Observe good industrial hygiene practices

Response- Wash hands after handling

Storage- Store away from incompatible materials

Disposal- Dispose of water and residues in accordance with local authority requirements.

Supplemental Label Information- None.

2.3 Other Hazards

None known.

Section 3: Composition/information on ingredients

3.1 Substances

General Information

Chemical Name	CAS	EINECS	%	REACH No	Index No	Notes
Bentonite	1302-78-9	215-108-5	100	-	-	-

Constituents

Chemical Name	CAS	EINECS	%	REACH No	Index No	Notes
Smectite Group Minerals	1318-93-0	215-288-5	-	-	-	-
Calcium Carbonate	471-34-1	207-439-9	-	-	-	-
Quartz	14808-60-7	238-878-4	<= 8	-	-	-
Cristobalite	14464-46-1	238-455-4	<= 2	-	-	-

Composition Comments

Occupational Exposure Limits for constituents are listed in Section 8. The full text for all H-statements is displayed in section 16.

Section 4: First Aid Measures

4.1 Description of first aid measures

General Information- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

After Inhalation- Move to fresh air. Call a physician if symptoms develop or persist.

After Ingestion- Rinse mouth. Get medical attention if symptoms occur.

After Eye Contact- Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

After Skin Contact- Wash off with soap and water. Get medical attention if irritation develops and persists.

4.2 Most important symptoms and effects, both acute and delayed

Dusts may irritate the respiratory tract, skin and eyes.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Section 5: Firefighting Measures

General Fire Hazards- No unusual fire or explosion hazards noted.

5.1 Extinguishing Media

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable Extinguishing

Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special Hazards arising from the substance mixture

During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special Protective Equipment for Fire Fighters

Material can be slippery when wet.

Special Fire Fighting Procedures

Use water spray to cool unopened containers.

Specific Methods

Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6: Accidental Release Measures

6.1 Personal Precautions, protective equipment and emergency procedures

For Non- Emergency Personnel

Keep unnecessary personnel away. Material can be slippery when wet. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.

For Emergency Responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2 Environmental Precautions

Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up

Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.

6.4 Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Minimise dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid prolonged exposure. Practice good housekeeping.

7.2 Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

7.3 Specific end use(s)

Not available.

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	TWA	4 mg/m³ 10 mg/m³	Respirable Dust Inhalable Dust

Biological limit values- No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures- Follow standard monitoring procedures.

Derived no effect levels (DNELs)- Not available.

Predicted no effect concentrations (PNECs)- Not available.

8.2 Exposure Controls

Appropriate Engineering Controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

General information- Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection- Wear safety glasses with side shields (or goggles).

Skin protection- Wear appropriate chemical resistant gloves. Wear suitable protective clothing.

Respiratory protection- Wear respirator with dust filter.

Thermal hazards- Wear appropriate thermal protective clothing, when necessary.

Hygiene measures- Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental manager must be informed of all major releases.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance- Lump, granular or fine powder

Physical State- Solid

Form- Powder

Colour- Not available

Odour- Not available

Odour Threshold- Not applicable

pH- 8.5-11

Melting Point/Freezing Point- > 450 °C (> 842 °F) / Not applicable.

Initial Boiling Point and Boiling Range- Not applicable

Flash Point- Not applicable

Evaporation Rate- Not applicable

Flammability (solid/gas)- Not available

Upper/Lower Flammability or Explosive Limits- Not applicable

Vapour Pressure- Not applicable

Vapour Density- Not applicable

Relative Density- 2.6 g/cm³

Solubility (Water)- < 0.9 mg/l

Partition Coefficient (n-octanol/water)- Not applicable

Auto-Ignition Temperature- Not applicable

Decomposition Temperature- > 500 °C (> 932 °F)

Viscosity- Not applicable

Viscosity Temperature- Not applicable

Explosive Properties- Not explosive

Oxidising Properties- Not oxidising

9.2 Other Information

Bulk Density-

Explosive Limit- Not applicable'

Explosivity- Not applicable

Fire Point- Not applicable

Flame Extension- Not applicable

Flame Projection- Not applicable

Flammability- Not applicable

Flammability (Flash Point)- Not applicable

Flammability (Heat of Combustion)- Not applicable

Flammability (Train Fire)- Not applicable

Flash Point Class- Not flammable

Molecular Formula- UVCB Substance

Molecular Weight- Not applicable

Percent Volatile- 0%

pH- in Aqueous Solution- 8.5-11

Specific Gravity- Not applicable

VOC- 0%

Section 10: Stability and Reactivity

10.1 Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

Material is stable under normal conditions.

10.3 Possibility of Hazardous Reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to Avoid

Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.

10.5 Incompatible Materials

Strong oxidising agents.

10.6 Hazardous Decomposition Products

No hazardous decomposition products are known.

Section 11: Toxicological Properties

General Information

Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of Exposure

Inhalation- Dust may irritate respiratory system. Prolonged inhalation may be harmful.

Skin Contact- Dust or powder may irritate the skin.

Eye Contact- Dust may irritate the eyes.

Ingestion- May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

11.1 Information on toxicological effects

Product	Species	Test Results
SPV 200 (CAS 1302-78-9) Acute		
Inhalation Dust LC50	Rat	> 5.27 mg/l, 4 hr OECD 436
Oral Dust LD50	Rat	> 2000 mg/kg OECD 425

Skin Corrosion/Irritation- Based on available data, the classification criteria are not met.

Serious Eye Damage/Eye Irritation- Based on available data, the classification criteria are not met.

Respiratory Sensitisation- Based on available data, the classification criteria are not met.

Skin Sensitisation- Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity- Based on available data, the classification criteria are not met.

Carcinogenicity- 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) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. Based on available data, the classification criteria are not met.

Reproductive Toxicity- Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (Single Exposure)- Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (Repeated Exposure)- Based on available data, the classification criteria are not met.

Aspiration Hazard- Due to partial or complete lack of data the classification is not possible. BENTONITE- 0 Not Classified.

Mixture Versus Substance Information- No information available.

Other Information- Not available.

Section 12: Ecological Information

12.1 Toxicity

Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Product	-	Species	Test Results
Bentonite (CAS 1302-78-9)			
Algae	EC50	Freshwater Algae	> 100 mg/l, 72 hours
Crustacea	EC50	Coon stripe shrimp (Pandalus danae)	24.8 mg/l, 96 hours
		Daphnia	> 100 mg/l, 48 hours
		Dungeness or Edible Crab (Cancer Magister)	81.6 mg/l, 96 hours
Fish	LC50	Freshwater Fish	16000 mg/l, 96 hours
		Marine Water Fish	2800 - 3200 mg/l, 24 hours

12.2 Persistence and degradability

No data is available on the degradability of this substance.

12.3 Bio accumulative potential

No data available.

Partition coefficient n-octanol/water (log kow)- Not available

Bioconcentration factor (BCF)- Not available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Not available.

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: Waste Disposal

13.1 Waste treatment methods

Residue Waste

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated Packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU Waste Code

The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal Methods/Information

Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Special Precautions

Dispose in accordance with all applicable regulations.

Section 14: Transport Information

ADR- 14.1. - 14.6.: Not regulated as dangerous goods.

RID- 14.1. - 14.6.: Not regulated as dangerous goods.

ADN- 14.1. - 14.6.: Not regulated as dangerous goods.

IATA- 14.1. - 14.6.: Not regulated as dangerous goods.

IDMG 14.1. - 14.6.: Not regulated as dangerous goods.

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

Not applicable.

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 and II, as amended- Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended- Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended- Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended- Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended- Not listed.

Regulation (EU) No. 649/2012 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, as amended- INERT OR NUISANCE DUSTS (CAS SEQ250)

Regulation (EC) No. 1907/2006, REACH Article 59(10) 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, as amended- Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended- Not listed.

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National Regulations

Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC.

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out

Section 16: Other Information

This data sheet is provided under CLP and REACH Regulation and is not intended to constitute an assessment of workplace risk associated with product(s) used as required under any other Health and Safety Regulation.

Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

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