



## Safety Data Sheet according to Directive 91/155/EC

Revision Date: November 2017

---

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

Trade Name: Brodie&Middleton Fullers Earth

Application: Artists' Filler

Manufacturer/Supplier:

Brodie&Middleton Ltd

30-31 Store Street

London WC1E 7QE

Telephone: 020-7836 3289

Fax: 020-7636 8733

---

### 2) Composition/Information on ingredients

#### Substances

Chemical name	Common name and synonyms	CAS number	%
Bentonite		1302-78-9	97 - 100
Quartz		14808-60-7	< 3.0

#### Composition comments

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.

---

### 3) Hazards Identification

Physical hazards: Not classified.

Health hazards: Carcinogenicity Category 1A

Environmental hazards: Not classified.

OSHA defined hazards: Not classified.

Label elements



**Signal word** Danger

**Hazard statement**

H350: May cause cancer.

**Precautionary statement**

**Prevention**

P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P264: Wash thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

P308 + P313: If exposed or concerned: Get medical advice/attention.

**Storage**

P405: Store locked up.

**Disposal**

P501: Dispose of contents/container (in accordance with related regulations).

Hazard(s) not otherwise classified (HNOC) Material can be slippery when wet.

Supplemental information: None.

---

#### 4) First Aid Measures

**Description of first aid measures**

Inhalation: If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.

Ingestion: Rinse mouth with water. Get medical attention if symptoms occur. If ingestion of a large amount does occur, seek medical attention.

Skin contact: Wash off with soap and water. Get medical attention if irritation develops and persists. Take off contaminated clothing and wash before reuse.



Stop the flow of material, if this is without risk. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Collect dust using a vacuum cleaner equipped with HEPA filter. Minimize dust generation and accumulation. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not flush into surface water. Do not let product enter drains.

## 7) Handling and Storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust from this material. Avoid contact with skin and eyes. Should be handled in closed systems, if possible. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Protect from moisture. Avoid dust formation. Store locked up. Keep container tightly closed. Store in a well-ventilated place. Guard against dust accumulation of this material. Store away from incompatible materials (see Section 10 of the SDS).

### Specific end use(s)

Artists' filler

## 8) Exposure/Personal Protection

### Occupational exposure limits

#### US. OSHA Table Z-3 (29 CFR 1910.1000)

<i>Components</i>	<i>Type</i>	<i>Value</i>	<i>Form</i>
Quartz (CAS 14808-60-7)	TWA	0.3 mg/m <sup>3</sup>	Total dust.
		0.1 mg/m <sup>3</sup>	Respirable.
		2.4 mppcf	Respirable.

<i>Additional components</i>	<i>Type</i>	<i>Value</i>	<i>Form</i>
Nuisance dust.	TWA	5 mg/m <sup>3</sup>	Respirable fraction.
		15 mg/m <sup>3</sup>	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

#### US. ACGIH Threshold Limit Values

<i>Components</i>	<i>Type</i>	<i>Value</i>	<i>Form</i>
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.

#### US. NIOSH: Pocket Guide to Chemical Hazards

<i>Components</i>	<i>Type</i>	<i>Value</i>	<i>Form</i>
Quartz (CAS 14808-60-7)	TWA	0.05 mg/m <sup>3</sup>	Respirable dust.
Biological limit values:	No biological exposure limits noted for the ingredient(s).		
Exposure guidelines:	Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.		
Appropriate engineering controls:	<p>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.</p> <p>If exposure limits have not been established, maintain airborne levels to an acceptable level. Ventilation should be sufficient to effectively remove and prevent build up of any dusts or fumes that may be generated during handling or thermal processing.</p>		

**Individual protection measures, such as personal protective equipment**

Eye/face protection:	Wear safety glasses with side shields. Use tight fitting goggles if dust is generated.
Skin protection	<p>Hand protection: Wear appropriate chemical resistant gloves. Use protective skin cream before handling the product. Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.</p> <p>Other: Normal work clothing (long sleeved shirts and long pants) is recommended.</p>
Respiratory protection:	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.
Thermal hazards:	Not available.
General hygiene considerations:	Do not breathe dust. Avoid contact with eyes. 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.

Protective equipment



---

## 9) Physical and chemical Properties

### Information on basic and physical and chemical properties

Appearance:	Powder.
Physical state:	Solid.
Form:	Powder.
Colour:	Off-white.
Odour:	Odourless.
Odour threshold:	Not available.
pH:	7.0 - 10.0 in suspension
Melting point/freezing point:	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:	Not available.
Solubility (water):	Insoluble
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not applicable

### Other information

Bulk density:	800.00 - 1000.00 kg/m <sup>3</sup>
Density:	2.60 g/cm <sup>3</sup>
Percent volatile:	0 % estimated
Specific gravity:	2.60

---

## 10) Stability and Reactivity

Reactivity:	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid:	Avoid spread of dust. Contact with incompatible materials. Avoid dispersal of dust in the air (i.e. Clearing dust surfaces with compressed air).
Incompatible materials:	None known.
Hazardous decomposition products:	No dangerous reaction known under conditions of normal use. No hazardous decomposition products are known.

---

## 11) Toxicological Information

Information on likely routes of exposure

Inhalation:	Inhalation of dusts may cause respiratory irritation.
Skin contact:	No adverse effects due to skin contact are expected.
Eye contact:	Dust in the eyes will cause irritation.
Ingestion:	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

Acute toxicity

<i>Product</i>	<i>Species</i>	<i>Test Results</i>
Acute Inhalation Fullers Earth	LC50 Rat	204.0816 mg/kg estimated 5.3776 mg/l estimated

Oral

LD50 Rat	2040.8163 mg/kg estimated
----------	---------------------------

*Components*

Acute Inhalation

Bentonite (CAS 1302-78-9)	LC50 Rat	>= 5.27 mg/l (OECD 436, rat)
---------------------------	----------	------------------------------

Oral

LD50 Rat	> 2000 mg/kg (OECD 420, rat)
----------	------------------------------

\* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation:	Prolonged skin contact may cause temporary irritation.
----------------------------	--

Serious eye damage/eye irritation:	Dust in the eyes will cause irritation. Mild irritant to eyes (according to the modified Kay & Calandra criteria).
------------------------------------	--

Respiratory or skin sensitization

Respiratory sensitization:	Not available.
----------------------------	----------------

Skin sensitization:	This product is not expected to cause skin sensitization.
---------------------	---

Germ cell mutagenicity:	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
-------------------------	--

Carcinogenicity: May cause cancer. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

IARC Monographs. Overall Evaluation of Carcinogenicity

Quartz (CAS 14808-60-7) 1: Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Quartz (CAS 14808-60-7): Known To Be Human Carcinogen.

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: Not classified.

Specific target organ toxicity - repeated exposure: Not classified.

Aspiration hazard: Not available.

Chronic effects: Prolonged exposure may cause chronic effects. Overexposure to dust may result in pneumoconiosis, a respiratory disease caused by inhalation of mineral dust, which can lead to fibrotic changes to the lung tissue, or silicosis, a respiratory disease caused by inhalation of silica dust, which can lead to inflammation and fibrosis of the lung tissue. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

## 12) Ecological Information

Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<i>Components</i>		<i>Species</i>	<i>Test Results</i>
Bentonite (CAS 1302-78-9)			
Aquatic			
Algae	EC50	Freshwater algae	>= 100 mg/l, 72 hours
Crustacea	EC50	Daphnia	>= 100 mg/l, 48 hours
		Freshwater invertebrate	81.6 mg/l, 96 hours
		Dungeness crab	24.8 mg/l, 96 hours
		dock shrimp	
Fish	LC50	Freshwater fish	16000 mg/l, 96 hours
		rainbow trout	



Marine water fish	2800 - 3200 mg/l, 24 hours bass, blue gill and sunfish
Rainbow Trout	19000 mg/l, 96 hours

Estimates for product may be based on additional component data not shown.

Persistence and degradability:	The methods for determining the biological degradability are not applicable to inorganic substances. Not inherently biodegradable. The product solely consists of inorganic compounds which are not biodegradable. No data is available on the degradability of this product.
Bioaccumulative potential:	No data available. Not applicable
Mobility in soil	No data available. Bentonite is almost insoluble and thus presents a low mobility in most soils
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. Not expected to be harmful to aquatic organisms.

### 13) Disposal Information

Disposal instructions:	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations:	Dispose in accordance with all applicable regulations.
Hazardous waste code:	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues/unused products:	Material should be recycled if possible.  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). Dispose of in accordance with local regulations. Can be landfilled, when in compliance with local regulations.
Contaminated packaging:	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

---

## 14) Transport Information

Transport class: This product is not classified for transport.

---

## 15) Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture: N/A

Chemical Safety Assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

---

## 16) Other information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations.

### Further Information

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 in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (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)

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.

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.

---

To best of our knowledge the information contain herein is accurate. However, neither the above supplier assumes any liability whatsoever for the accuracy or completeness of the information herein

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist