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

1.1) Product Identifier

<table>
<thead>
<tr>
<th>Material</th>
<th>Bentonite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>Wyoming Bentonite; Sodium Bentonite; Calcium Bentonite; Bentonite Fine</td>
</tr>
<tr>
<td>Product form</td>
<td>Substance</td>
</tr>
<tr>
<td>EC No</td>
<td>215-108-5</td>
</tr>
<tr>
<td>CAS No</td>
<td>1302-78-9</td>
</tr>
<tr>
<td>REACH registration No</td>
<td>Exempt</td>
</tr>
<tr>
<td>Company</td>
<td>Inoxia Ltd 45.7 Dunsfold Park Stovolds Hill Cranleigh Surrey GU6 8TB Tel: 02032 909990 <a href="mailto:safety@inoxia.co.uk">safety@inoxia.co.uk</a> <a href="http://www.inoxia.co.uk">www.inoxia.co.uk</a></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>Classification according to Directive 67/548/EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bentonite</td>
<td>(CAS No.) 1302-78-9</td>
<td>&gt;93</td>
<td>Not classified</td>
</tr>
<tr>
<td></td>
<td>(EC no) 215-108-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartz</td>
<td>(CAS No.) 14808-60-7</td>
<td>&lt;2</td>
<td>Not classified</td>
</tr>
<tr>
<td></td>
<td>(EC no) 238-878-4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 rising. 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
   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

<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>STD</th>
<th>TWA-8hrs</th>
<th>STEL-15 mins</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>Quartz</td>
<td>WEL</td>
<td>0.1 mg/m³</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 that 1% w/w RCS (respirable crystalline silica) as determine 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

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

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:


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 453/2010

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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