Material Safety Data Sheet

SIBELCO BENTONITE GROUP 2

Infosafe™ LPU5P Issue Date September 2010 Status ISSUED by SIBELCO
No. BS: 1.10.9

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<table>
<thead>
<tr>
<th>Product Name</th>
<th>SIBELCO BENTONITE GROUP 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code</td>
<td></td>
</tr>
<tr>
<td>Company Name</td>
<td>SIBELCO AUSTRALIA LIMITED</td>
</tr>
<tr>
<td>Address</td>
<td>49-55 Woodlands Drive Braeside Vic 3195</td>
</tr>
<tr>
<td>Emergency Tel.</td>
<td>1800 638 556</td>
</tr>
<tr>
<td>Telephone/Fax Number</td>
<td>Tel: (03)9586 5400 Fax: (03)9586 5413</td>
</tr>
</tbody>
</table>

**Recommended Use**

Oil well drilling fluids; cement slurries for oil well casings; bonding agent in foundry sands and pelletising of iron ores; sealant for canal walls and dams; thickener in lubricating greases and fire proofing compositions; cosmetics; decolourising agent; filler in ceramics; refractories; paper coatings; asphalt modifier; polishes and abrasives; food additive; catalyst support; pelletising additive for stock food preparations.

<table>
<thead>
<tr>
<th>Other Names</th>
<th>Name</th>
<th>Product Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SM23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SM72</td>
<td></td>
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<tr>
<td></td>
<td>TRUBOND SM23</td>
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<tr>
<td></td>
<td>TRUBOND SM72</td>
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<tr>
<td></td>
<td>ACTIVEBOND 23</td>
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<td>ACTIVEBOND 25</td>
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<td></td>
<td>ACTIVEGEL 53</td>
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<td></td>
<td>ACTIVEGEL 150</td>
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<tr>
<td></td>
<td>CRESSFEED</td>
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</table>

2. HAZARDS IDENTIFICATION

**Hazard Classification**

HAZARDOUS SUBSTANCE.
NON-DANGEROUS GOODS.

Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia
Dangerous Goods Code.

**Risk Phrase(s)**

R48/20 Harmful: danger of serious damage to health by prolonged
exposure through inhalation.

**Safety Phrase(s)**

S22 Do not breathe dust.
S38 If insufficient ventilation, wear suitable respiratory equipment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Name</th>
<th>CAS</th>
<th>Proportion</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Smectite</td>
<td>12199-37-0</td>
<td>60-100 %</td>
</tr>
<tr>
<td></td>
<td>Albite</td>
<td>&lt;2 %</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quartz (crystalline</td>
<td>14808-60-7</td>
<td>&lt;11 %</td>
</tr>
<tr>
<td></td>
<td>silica)</td>
<td></td>
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</table>

**Other Information**
The respirable fraction of free crystalline silica is less than 4%.

4. FIRST AID MEASURES

**Inhalation**
If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms persist seek medical attention.

**Ingestion**
Do not induce vomiting. Wash out mouth thoroughly with water. If symptoms develop seek medical attention.

**Skin**
Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

**Eye**
If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and persist seek medical attention.

**First Aid Facilities**
Eyewash and normal washroom facilities.

**Advice to Doctor**
Treat symptomatically.

5. FIRE FIGHTING MEASURES
Suitable Extinguishing Media
Use appropriate fire extinguisher for surrounding environment.

Hazards from Combustion Products
Under fire conditions this product may emit toxic and/or irritating fumes and gases.

Specific Hazards
This product is non combustible.

Precautions in connection with Fire
Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes.

Unsuitable Extinguishing Media
Do not use water jets.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures
Increase ventilation. Evacuate all unprotected personnel. Wear sufficient respiratory protection and full protective clothing to prevent exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Wash surfaces well with soap and water. Seal all wastes in labelled plastic containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water authorities and EPA in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the work atmosphere. Avoid inhalation of dust, and skin or eye contact. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for Safe Storage
Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in labelled, corrosion-resistant containers. Keep containers tightly closed. Store away from bases, water and other incompatible materials. Have appropriate fire extinguishers available in and near the storage area. Ensure that storage conditions comply with applicable local and national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National
No exposure value assigned for this specific material by the
Exposure Standards

National Occupational Health and Safety Commission (NOHSC), Australia. However, the available exposure limits for ingredients are listed below:

National Occupational Health And Safety Commission (NOHSC), Australia Exposure Standards:

<table>
<thead>
<tr>
<th>Substance</th>
<th>TWA STEL</th>
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<tbody>
<tr>
<td>Dust</td>
<td>10 - -</td>
</tr>
<tr>
<td>Crystalline silica</td>
<td>0.1 - -</td>
</tr>
</tbody>
</table>

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

Biological Limit Values

No biological limits allocated.

Engineering Controls

Provide sufficient ventilation to keep airborne levels below the exposure limits. Where dust is generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Light pink, off white impalpable powder or granules

Odour

No distinct odour

Melting Point

Not available

Boiling Point

Not applicable

Solubility in

Insoluble. Forms colloidal suspensions in water, with strong
10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions of storage and handling.

Conditions to Avoid Not available

Incompatible Materials Not available

Hazardous Decomposition Products Under fire conditions this product may emit toxic and/or irritating fumes and gases.

Hazardous Polymerization Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information No toxicity data available for this product.

Inhalation Inhalation of product dust may cause irritation of the nose, throat and respiratory system.

Ingestion Ingestion of this product may irritate the gastric tract causing nausea and vomiting. When ingested, bentonite can swell several times in volume and can produce intestinal obstruction.

Skin May be irritating to skin. The symptoms may include redness, itching and swelling.
Eye
May be irritating to eyes. The symptoms may include redness, itching and tearing.

Chronic Effects
Repeated exposure to respirable crystalline silica dust may lead to silicosis, or other serious delayed lung injury. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or signs of ill-health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased, and may also lead to other diseases including heart disease and scleroderma.

Carcinogenicity
The product contains a small proportion of respirable crystalline silica as quartz (<4%). Crystalline Silica (respirable size <= 7 µm) has been classified by the International Agency for Research on Cancer (IARC) as Carcinogenic to Humans (Group 1).

12. ECOLOGICAL INFORMATION

Ecotoxicity
No ecological data are available for this material.

Persistence / Degradability
Not available

Mobility
Not available

Environment Protection
Prevent this material entering waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations
Dispose of waste according to applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

15. REGULATORY INFORMATION

Regulatory Information
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia. Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Poisons Schedule
Not Scheduled

Hazard Category
Harmful
16. OTHER INFORMATION

| Date of preparation or last revision of MSDS | MSDS Reviewed: September 2010  
Supersedes: December 2008 |
<table>
<thead>
<tr>
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<tr>
<td>Contact Person/Point</td>
<td>Emergency Advice: ACOHS ERS – 1800 638 556 (24 Hours)</td>
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</tbody>
</table>

PLEASE NOTE:
The information contained herein is based on data available to Sibelco Australia Limited from both our own technical sources and from recognised published references and is believed to be both accurate and reliable. Sibelco Australia Limited has made no effort to censor nor to conceal deleterious aspects of this product. Since we cannot anticipate or control the many different conditions under which this information and our products may be used, each user should review these recommendations in the specific context of the intended application and confirm whether they are appropriate. It is therefore recommended that you undertake your own risk assessment in relation to your method of handling and proposed use of this product. Sibelco Australia Limited accepts no liability whatsoever for damage or injury caused from the use of this information or of suggestions contained herein.

End of MSDS