1. PRODUCT AND COMPANY IDENTIFICATION

Commercial names: BNZP…. 23 L; 23 B; 25 L; 26 HS; 26 A; 26 B; Calor A; Calor B; Calor CA

Note: See Section 16 below for commercial names used before 1st January 2010
Use: Bricks and special shapes for use as high temperature insulation in heat enclosures.

Manufacturer:
BNZ sa
22210 PLEMET
FRANCE

Supplier:
BNZ sa
56, Rue du 6 août
22210 PLEMET
FRANCE

Health and Safety information:
Industrial Hygiene contact numbers:-
Tel Fax
France +33 (0) 2 96 25 61 01 +33 (0) 2 96 25 64 18

2. HAZARDS IDENTIFICATION

- Abrasive to skin, direct contact can irritate eyes and upper respiratory tract, usually temporarily.
- Exposure may aggravate pre-existing conditions such as chronic lung disease, asthma, and skin disorders.
- The product can release dust during sawing or removal.
- Not combustible or explosive

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description: All materials described in this document are Insulating Firebricks.
Note: None of these components are radioactive as given in Euro Directive Euratom 96/29

<table>
<thead>
<tr>
<th>PHASE</th>
<th>EINECS No.</th>
<th>LEVEL</th>
<th>SYMBOL</th>
<th>R SENTENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>MULLITE</td>
<td>215-113-2</td>
<td>Major</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>ALUMINA</td>
<td>215-691-6</td>
<td>Major</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>GLASS</td>
<td>215-106-4</td>
<td>Major</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>QUARTZ</td>
<td>238-878-4</td>
<td>Possible Traces</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

Pre-existing medical conditions: In common with most dusts, any pre-existing upper respiratory tract and lung conditions may be aggravated if the dust is allowed to enter these areas.

**FIRST AID:**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Remove to fresh air, clear nose and gargle with water to flush mouth and throat.</td>
</tr>
<tr>
<td>Eyes</td>
<td>If dust comes in contact with eyes, wash immediately with copious amount of water, for at least 15 minutes, maintaining eyelids open. In all cases consult an ophthalmologist, even if no lesions are apparent.</td>
</tr>
<tr>
<td>Skin</td>
<td>Flush affected areas with warm water then wash with non-detergent soap.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Drink plenty of water.</td>
</tr>
</tbody>
</table>

5. FIRE FIGHTING MEASURES

This product is not combustible or explosive as received.

6. ACCIDENTAL RELEASE MEASURES

Use LEP (or goggles) and RPE (mask) if spillage releases airborne dust. Dampen down spilt dry dust with water and bag up for disposal.

Alternatively the spillage can be removed with a high efficiency (HEPA filter type) vacuum cleaner.

7. HANDLING AND STORAGE

Keep in original packing until use if possible.

Minimise airborne dust and ensure the RLV is not exceeded (4 mg/m³, 8hr TWA basis)

Wear suitable goggles, gloves and protective clothing when handling these bricks, such as used on construction sites.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Dust released during sawing or removal may contain traces of crystalline silica as supplied.

Comply with local regulations in particular threshold limit values for exposure to dust.

*Consult an industrial hygienist if necessary for appropriate recommendations on preventive measures.*

- Wear enclosed goggles
- Wear protective gloves
- Eating, drinking or smoking should be restricted in the workplace using these materials.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White to off-white solid</td>
</tr>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>Melting point</td>
<td>&gt;1650 °C</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Solubility in organic solvents</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>450-1200 kg/m³</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>2.2-2.7 kg/m³</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability: Stable at ambient temperatures.

Conditions or materials to avoid:
none

Hazardous decomposition products:
Crystallised silica may form after a long exposure above 900 °C. Comply with safety regulations and exposure limits if crystalline silica develops during use at high temperatures in excess of 900 °C.

11. TOXICOLOGICAL INFORMATION

- There is no specific information available on the toxicology of dust released during sawing or removal
- May contain traces of crystalline silica as supplied check after service for evidence of crystalline silica polymorphs. If present then review toxicology threats with appropriate health specialists prior to repair or demolition after service.

12. ECOLOGICAL INFORMATION

Bio accumulation: Non bio accumulative
Targets: N.A.
Aquatic toxicity: N.A.
13. DISPOSAL CONSIDERATIONS

**Waste product:**
Uncontaminated wastes from these materials are not classified as hazardous and can be disposed of by bagging and tipping at a licensed site for the disposal of industrial wastes.

**Elimination:**
Before destruction and disposal of any refractory lining, it is essential to evaluate any changes to the product that may have taken place after the introduction of substances or operating conditions outside the control of the Vendor, e.g., formation of undesirable compounds after reaction with slags, hot combustion gases, liquid metals, high temperatures or other contact materials. These may include chrome (VI) compounds or transformation of amorphous silica to crystalline forms.

14. TRANSPORT INFORMATION

Not classified as dangerous goods under the United Nations Transport Recommendations. Avoid wind blown releases.

15. REGULATORY INFORMATION

In addition to the above information reference to the appropriate National EU Member State Regulations should be made.

16. OTHER INFORMATION

Information provided in this Material Safety Data Sheet is correct to the best of our knowledge at the date of publication. It is intended as a guide for safe handling, storage, use and disposal in known industrial applications. It is not a specification or guarantee of specific properties. The conditions or methods of handling, storage, use and disposal are beyond our control and may be beyond our knowledge. Thus we cannot accept responsibility for any loss, damage or expense connected with the handling, storage, use or disposal of the product.

Further information BNZP insulating firebricks is available on the technical data sheets (TDS) on request.

Former product names prior to 1 January 2010:
- BNZP 23 L = CALOR 23
- BNZP 23 = RI 23
- BNZP 23B = RI 23B
- BNZP 26 = CALOR 26
- BNZP 26B = CALOR 26B