Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: DIATOMACEOUS EARTH, NATURAL

Other name(s): Infusorial earth; Diatomite; Keiselguhr; Amorphous diatomaceous earth.

Recommended use of the chemical and restrictions on use:
Raw material, filtration aid, absorbent.

Supplier: Orica Australia Pty Ltd
ABN: 99 004 117 828
Street Address: 1 Nicholson Street, Melbourne 3000
Australia

Telephone Number: +61 3 9665 7111
Facsimile: +61 3 9665 7937
Emergency Telephone: 1 800 033 111 (ALL HOURS)

2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Based on available information, not classified as hazardous according to Safe Work Australia; NON-HAZARDOUS SUBSTANCE.

Poisons Schedule (SUSMP): None allocated.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Proportion</th>
<th>Hazard Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diatomaceous earth</td>
<td>61790-53-2</td>
<td>100%</td>
<td>-</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:
Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact:
If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

Eye Contact:
If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.
5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Not combustible, however, if material is involved in a fire use: Extinguishing media appropriate to surrounding fire conditions.

Specific hazards arising from the substance or mixture:
Non-combustible material.

Special protective equipment and precautions for fire-fighters:
Non-combustible material.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:
If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:
Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:
Avoid skin and eye contact and breathing in dust. Avoid handling which leads to dust formation.

Conditions for safe storage, including any incompatibilities:
Store under cover in a dry place. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Silica Amorphous - Diatomaceous earth (uncalcined): 8hr TWA = 10 mg/m³
TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls:
Ensure ventilation is adequate to maintain air concentrations below Workplace Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

Individual protection measures, such as Personal Protective Equipment (PPE):
The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Orica Personal Protection Guide No. 1, 1998: E - OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.

Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>White to Off-white</td>
</tr>
<tr>
<td>Odour:</td>
<td>Odourless</td>
</tr>
<tr>
<td>Molecular Formula:</td>
<td>SiO2</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Negligible solubility in water.</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>2.2</td>
</tr>
<tr>
<td>Relative Vapour Density (air=1):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour Pressure (20 °C):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash Point (°C):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability Limits (%):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Autoignition Temperature (°C):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting Point/Range (°C):</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Point (°C):</td>
<td>Not available</td>
</tr>
<tr>
<td>pH:</td>
<td>7-9</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY
11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

**Ingestion:** No adverse effects expected, however, large amounts may cause nausea and vomiting.

**Eye contact:** May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

**Skin contact:** Repeated or prolonged skin contact may lead to irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

**Inhalation:** Breathing in dust may result in respiratory irritation. Inhalation of high concentrations of dust may cause irritation of the nose, mouth and upper respiratory tract which may result in nose bleeds, due to its degreasing action. This material can absorb moisture and oil from the body.

**Acute toxicity:** No LD50 data available for the product.

**Chronic effects:** Natural diatomaceous earths contain small amounts of crystalline silica. For constituent crystalline silica, quartz: Epidemiological studies in humans have revealed that crystalline silica may cause lung cancer, silicosis, lymph node fibrosis, airways disease, emphysema and lung inflammation. (1) (2)

Rats exposed to a precipitated amorphous silica for up to 1 year and guinea pigs and rabbits exposed for 2 years at a concentration of 126 mg/m³ developed no pulmonary fibrosis. (2) Inhaling crystalline silica containing dust can aggravate respiratory conditions such as asthma or emphysema. Long term exposure to mineral dust which contains crystalline silica can cause the lung disease silicosis. The toxicity of crystalline silica is directly proportional to the ability of any particle to reach the lower respiratory tract. Particles with an aerodynamic diameter below 10 um are likely to be most harmful to humans, as they reach the lower respiratory tract and are less readily removed by the lungs.

For amorphous silica: This material has been classified by the International Agency for Research on Cancer (IARC) as a Group 3 agent. Group3 - The agent is not classifiable as to its carcinogenicity to humans. (1) For crystalline silica (inhaled in the form of respirable quartz or cristobalite from occupational sources): This material has been classified by the International Agency for Research on Cancer (IARC) as a Group 1 agent. Group 1 - the agent is carcinogenic to humans. (1)

12. ECOLOGICAL INFORMATION

Ecotoxicity: Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Product Name: DIATOMACEOUS EARTH, NATURAL
Substance No: 000031027301

Issued: 31/03/2010
Version: 2
Disposal methods:
Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. TRANSPORT INFORMATION

Road and Rail Transport
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification:
Based on available information, not classified as hazardous according to Safe Work Australia; NON-HAZARDOUS SUBSTANCE.

Poisons Schedule (SUSMP):
None allocated.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION


This safety data sheet has been prepared by Orica Toxicology & SDS Services.

Reason(s) for Issue:
5 Yearly Revised Primary SDS

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Orica Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Orica representative or Orica Limited at the contact details on page 1.

Orica Limited’s responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.