SAFETY DATA SHEET

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAK

Product identifier : Arizona Sand
Product Code(s) : Arizona sand including Arizona Test Dust; Arizona Test Dust Fractions, Arizona Road Dust; Arizona Silica; AC Fine and AC Coarse Test Dusts; SAE Fine and Coarse Test Dusts; J726 Test Dusts; ISO 12103-1, A1 Ultrafine Test Dust; ISO 12103-1, A2 Fine Test Dust; ISO 12013-1, A3 Medium Test Dust; ISO 12103-1, A4 Coarse Test Dust; MIL STD 810F Blowing Dust

Relevant identified uses of the substance or mixture and uses advised against

: Primarily used for testing filtration products as well as other automotive, aerospace and military mechanical components.
Use pattern: professional use.

Details of the supplier of the safety data sheet:
Powder Technology Inc.
14331 Ewing Avenue South
Burnsville, MN, U.S.A.
55306
Telephone : 001-952-894-8737
Emergency Telephone Number : Not available.

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Solid - tan/brown/light brown/reddish brown. No odour.

Most important hazards: The preparation is classified as dangerous in accordance with Directive 1999/45/EC. Classification:
T - Toxic
Carc.Cat.2; R49 - May cause cancer by inhalation.
Xn - Harmful
R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Label elements

Hazardous components which must be listed on the label: Quartz (SiO2); titanium dioxide.

Restricted to professional users.

R-phrase(s):
R49 - May cause cancer by inhalation.
R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Arizonan Sand

Product code(s): Arizona sand including Arizona Test Dust; Arizona Test Dust Fractions, Arizona Road Dust; Arizona Silica; AC Fine and AC Coarse Test Dusts; SAE Fine and Coarse Test Dusts; J726 Test Dusts; ISO 12103-1, A1 Ultrafine Test Dust; ISO 12103-1, A2 Fine Test Dust; ISO 12103-1, A3 Medium Test Dust; ISO 12103-1, A4 Coarse Test Dust; MIL STD 810F Blowing Dust

SAFETY DATA SHEET

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S-phrase(s):
S53 - Avoid exposure - obtain special instructions before use.
S22 - Do not breathe dust.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S35 - This material and its container must be disposed of in a safe way.

Other hazards
Other hazards which do not result in classification:
Burning produces obnoxious and toxic fumes. Inhalation of fumes may result in metal fume fever, a flu-like illness. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Product dust may be irritating to eyes, skin and respiratory system. Dust contact with the eyes can lead to mechanical irritation.

Environmental precautions: Not expected to be harmful to aquatic organisms. No data is available on the product itself. Avoid release to the environment.

PBT assessment: This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
Not applicable

Mixtures
Chemical nature: Mixture - Arizona Sand is a naturally occurring material containing the following inorganic substances in powdered form:

The following substances shall be indicated according to legislation:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS #</th>
<th>EC No.</th>
<th>Concentration</th>
<th>EU Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>238-878-4</td>
<td>68.0 - 76.0</td>
<td>T - Toxic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Carc. Cat. 2; R49</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Xn - Harmful</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R48/20 (self classified)</td>
</tr>
<tr>
<td>Aluminium oxide</td>
<td>1344-28-1</td>
<td>215-691-6</td>
<td>10.0 - 15.0</td>
<td>None assigned. Substances for which there are Community workplace exposure limits.</td>
</tr>
<tr>
<td>Diiron trioxide</td>
<td>1309-37-1</td>
<td>215-168-2</td>
<td>2.0 - 5.0</td>
<td>None assigned. Substances for which there are Community workplace exposure limits.</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>1305-78-8</td>
<td>215-138-9</td>
<td>2.0 - 5.0</td>
<td>Xn - Irritant R37/38 - R41 (self classified)</td>
</tr>
<tr>
<td>Disodium oxide</td>
<td>1313-59-3</td>
<td>215-208-9</td>
<td>2.0 - 4.0</td>
<td>C - Corrosive; R35 (self classified)</td>
</tr>
<tr>
<td>Magnesium oxide</td>
<td>1309-48-4</td>
<td>215-171-9</td>
<td>1.0 - 2.0</td>
<td>None assigned. Substances for which there are Community workplace exposure limits.</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>236-675-5</td>
<td>0.5 - 1.0</td>
<td>Xn - Harmful Carc. Cat. 3; R40 (self classified)</td>
</tr>
</tbody>
</table>

For the full text of the R phrases mentioned in this section, see Section 2 or 16.
SECTION 4. FIRST-AID MEASURES

Description of first aid measures

**Ingestion**: If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

**Inhalation**: If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Skin contact**: IF ON SKIN: Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. If irritation or symptoms develop, seek medical attention.

**Eye contact**: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Most important symptoms and effects, both acute and delayed

- May cause cancer by inhalation.
- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- Involves breathing of fumes may result in metal fume fever, a flu-like illness.
- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
- Product dust may be irritating to eyes, skin and respiratory system.
- Dust contact with the eyes can lead to mechanical irritation.

Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing media**

*Suitable extinguishing media*

- Foam; Dry chemical; Water spray; Carbon dioxide (CO2).

*Unsuitable extinguishing media*

- Do not use a solid water stream as it may scatter and spread fire.

**Special hazards arising from the substance or mixture**

- Not flammable under normal conditions of use. The pressure in sealed containers can increase under the influence of heat. In the event of fire the following can be released: Metal oxides.

**Advice for firefighters**

*Protective equipment for fire-fighters*

- Wear self-contained breathing apparatus and protective suit. Fight fire with normal precautions from a reasonable distance.

*Special fire-fighting procedures*

- Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

- Wear suitable protective equipment. Keep people away from and upwind of spill/leak.

**Environmental precautions**

- Avoid contamination of natural waterways.

**Methods and material for containment and cleaning up**

- Ventilate the area. Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Pick up and transfer to properly labelled containers. Clean up promptly by scoop or vacuum. Avoid dust formation. Contact the proper local authorities.
Arizona Sand

SDS Preparation Date (dd/mm/yyyy): 18/04/2012

SAFETY DATA SHEET

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Reference to other sections

Refer to protective measures listed in sections 7 and 8. Refer to Section 13 for disposal of contaminated material.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Restricted to professional users. Avoid exposure - obtain special instructions before use.

Use only in well-ventilated areas. Wear suitable protective equipment. For personal protection see section 8. Do not breathe dust. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and flame. Avoid contact with incompatible materials. Avoid and control operations which create dust. Keep containers closed when not in use. Wash thoroughly after handling. Empty containers retain residue.

Conditions for safe storage, including any incompatibilities

Store in cool/well-ventilated place. Keep away from heat. Inspect periodically for damage or leaks. Protect against physical damage. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Keep containers dry and tightly closed to avoid moisture absorption and contamination.

Specific end use(s)

Primarily used for testing filtration products as well as other automotive, aerospace and military mechanical components.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure Limits</th>
<th>Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium oxide</td>
<td>10 mg/m³ (TWA)</td>
<td>France (OEL)</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>2.5 mg/m³ (inhalable); 1.2 mg/m³ (respirable dust) (TWA)</td>
<td>Poland (OEL)</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (TWA)</td>
<td>Spain (OEL)</td>
<td>None.</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>2 mg/m³ (TWA)</td>
<td>France (OEL)</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>2 mg/m³ (TWA)</td>
<td>Italy (OEL)</td>
<td>Recommended exposure limit based on ACGIH TLVs</td>
</tr>
<tr>
<td></td>
<td>2 mg/m³ (dust) (TWA)</td>
<td>Poland (OEL)</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>6 mg/m³ (dust) (STEL)</td>
<td>Poland (OEL)</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>2 mg/m³ (TWA)</td>
<td>Spain (OEL)</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>2 mg/m³ (TWA)</td>
<td>The United Kingdom (The United Kingdom (WELs))</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>6 mg/m³ (STEL)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

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<table>
<thead>
<tr>
<th>Compound</th>
<th>Exposure Limits</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diiron trioxide</strong></td>
<td>5 mg/m³ (TWA) as Fe</td>
<td>France (OEL)</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ (TWA) as Fe</td>
<td>Poland (OEL)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (STEL) as Fe</td>
<td>The United Kingdom (WELs)</td>
</tr>
<tr>
<td><strong>Disodium oxide</strong></td>
<td>None known.</td>
<td>European Union (OEL)</td>
</tr>
<tr>
<td><strong>Magnesium oxide</strong></td>
<td>10 mg/m³ (fumes) (TWA)</td>
<td>France (OEL)</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ (Fumes); 10 mg/m³ (dust) (TWA)</td>
<td>Poland (OEL)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (dust and fume) (TWA)</td>
<td>Spain (OEL)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (inhalable); 4 mg/m³ (Fumes; Respirable dust) (TWA)</td>
<td>The United Kingdom (WELs)</td>
</tr>
<tr>
<td></td>
<td>30 mg/m³ (inhalable); 12 mg/m³ (Fumes; Respirable dust) (STEL)</td>
<td>None.</td>
</tr>
<tr>
<td><strong>Potassium chloride</strong></td>
<td>5 mg/m³ (TWA)</td>
<td>Bulgaria: European Union (OEL)</td>
</tr>
<tr>
<td>Bulgaria:</td>
<td>5 mg/m³ (TWA)</td>
<td>Lithuania: Latvia (OEL)</td>
</tr>
<tr>
<td>Lithuania:</td>
<td>5 mg/m³ (TWA)</td>
<td>None.</td>
</tr>
<tr>
<td><strong>Quartz (SiO2)</strong></td>
<td>0.1 mg/m³ (inhalable) (TWA)</td>
<td>France (OEL)</td>
</tr>
<tr>
<td></td>
<td>0.025 mg/m³ (respirable dust) (TWA)</td>
<td>Italy (OEL)</td>
</tr>
<tr>
<td></td>
<td>2 mg/m³ (inhalable) (TWA)</td>
<td>Recommended exposure limit based on ACGIH TLVs</td>
</tr>
<tr>
<td></td>
<td>0.3 mg/m³ (respirable dust) (STEL)</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m³ (respirable dust) (TWA)</td>
<td>None.</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m³ (TWA)</td>
<td>The United Kingdom (WELs)</td>
</tr>
<tr>
<td></td>
<td>0.3 mg/m³ (respirable dust) (STEL)</td>
<td>None.</td>
</tr>
<tr>
<td><strong>Titanium dioxide</strong></td>
<td>10 mg/m³ (TWA)</td>
<td>France (OEL)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (TWA)</td>
<td>Italy (OEL)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (TWA)</td>
<td>Poland (OEL)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (TWA)</td>
<td>Spain (OEL)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (inhalable); 4 mg/m³ (respirable dust) (TWA)</td>
<td>The United Kingdom (WELs)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (TWA)</td>
<td>None.</td>
</tr>
</tbody>
</table>
Ventilation and engineering measures
: Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection
: Where occupational exposure limits are exceeded, workers must wear a suitable, approved respirator with a N95 or HEPA filter. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used. The type of respiratory protection will depend on the conditions of use (see also EN 149).

Skin protection
: Wear protective gloves. The suitability for a specific workplace should be discussed with the producers of the protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

Eye / face protection
: Wear eye/face protection. Wear as appropriate: Tightly fitting safety goggles. See also EN 166.

Other protective equipment
: Wear sufficient clothing to prevent skin contact. Ensure that eyewash stations and safety showers are close to the workstation location.

General hygiene considerations
: Do not breathe dust. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance
: solid - tan/brown/light brown/reddish brown

Odour
: No odour.

Odour threshold
: No information available.

pH
: No information available.

Flash point
: Not applicable. Non-flammable.

Flashpoint (Method)
: No information available.

Lower flammable limit (% by vol.)
: Not applicable.

Upper flammable limit (% by vol.)
: Not applicable.

Flammability (solid, gas)
: Not considered flammable.

Auto-ignition temperature
: No information available.

Decomposition temperature
: No information available.

Oxidizing properties
: None.

Explosive properties
: Not explosive.

Initial boiling point and boiling range
: 2212°C

Melting/Freezing point
: 1615°C (+/- 75°C)

Relative density
: 2.65

Solubility in water
: insoluble

Other solubility(ies)
: No information available.

Vapour pressure
: Not applicable.
Arizona Sand

Product code(s): Arizona sand including Arizona Test Dust; Arizona Test Dust Fractions, Arizona Road Dust; Arizona Silica; AC Fine and AC Coarse Test Dus; SAE Fine and Coarse Test Dus; J726 Test Dus; ISO 12103-1, A1 Ultrafine Test Dust; ISO 12103-1, A2 Fine Test Dust, ISO 12103-1, A3 Medium Test Dust; ISO 12103-1, A4 Coarse Test Dust; MIL STD 810F Blowing Dust

SAFETY DATA SHEET

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Vapour density: Not applicable.
Partition coefficient: n-octanol/water: No information available.
Viscosity: Not applicable.
Evaporation rate (BuAe = 1): No information available.

Other Information

Volatile (% by weight): Not applicable.
Volatile organic Compounds (VOC’s): Not applicable.
Other physical/chemical comments: No additional information.

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Not normally reactive.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions:
Hazardous polymerisation does not occur.
Conditions to avoid: Incompatible products Do not use in areas without adequate ventilation. Avoid moisture. Extreme heat.
Incompatible materials: Oxidizing agents; Halocarbons; Acids; Water.
Hazardous decomposition products: In the event of fire the following can be released: Metal oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological effects:

Acute toxicity: According to the classification criteria of the European Union, this product is not considered as being an acutely toxic chemical.
Irritation: According to the classification criteria of the European Union, this product is not considered as being an irritant. May cause mechanical irritation.
Corrosivity: According to the classification criteria of the European Union, this product is not considered as being a corrosive material.
Sensitisation: According to the classification criteria of the European Union, this product is not considered as being an allergic respiratory sensitiser.
According to the classification criteria of the European Union, this product is not considered as being an allergic skin sensitiser.
Mutagenicity: According to the classification criteria of the European Union, the product is not considered as being a germ cell mutagen. Contains no ingredient listed as a mutagen.
Powder Technology Inc.
14331 Ewing Avenue South
Burnsville, MN, U.S.A.
55306
Tel: 001-952-894-8737

Arizona Sand
Product code(s): Arizona sand including Arizona Test Dust; Arizona Test Dust Fractions, Arizona Road Dust; Arizona Silica; AC Fine and AC Coarse Test Dusts; SAE Fine and Coarse Test Dusts; J726 Test Dusts; ISO 12103-1, A1 Ultrafine Test Dust; ISO 12103-1, A2 Fine Test Dust, ISO 12013-1, A3 Medium Test Dust; ISO 12103-1, A4 Coarse Test Dust; MIL STD 810F Blowing Dust

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Carcinogenicity
The preparation is classified as dangerous in accordance with Directive 1999/45/EC.
Classification:
T - Toxic. Carc. Cat.2; R49 - May cause cancer by inhalation. Contains: Crystalline silica, quartz. IARC concluded that there was "sufficient evidence in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources", and that there is "sufficient evidence in experimental animals for the carcinogenicity of quartz and cristobalite." The overall IARC evaluation was that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)." The IARC evaluation noted, "Carcinogenicity was not detected in all industrial circumstances studies. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." For further information on the IARC evaluation, see IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 68, and "Silica, Some Silicates." (1997).

Reproductive toxicity
According to the classification criteria of the European Union, this product is not considered as being toxic to reproduction. Contains no ingredient listed as toxic to reproduction.

Repeated dose toxicity
The preparation is classified as dangerous in accordance with Directive 1999/45/EC.
Classification:
Xn - Harmful. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Contains: Crystalline silica, quartz. Repeated or prolonged inhalation of fine dusts may cause severe scarring of the lungs, a disease called silicosis, and alveolar proteinosis (lower lung disease).

Silicosis is caused by the inhalation and retention of respirable crystalline silica dust. Silicosis can exist in several forms, chronic (or ordinary), accelerated, or acute. Chronic or Ordinary Silicosis (often referred to as Simple Silicosis) is the most common form of silicosis, and can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis. Simple silicosis is characterized by lung lesions (shown as radiographic opacities) less than 1 centimeter in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms, detectable changes in lung function or disability.

Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 centimeter in diameter. Although there may be no symptoms associated with complicated silicosis or PMF, the symptoms, if present, are shortness of breath, wheezing, cough and sputum production. Complicated silicosis or PMF may be associated with decreased lung function and may be disabling.

Advanced complicated silicosis or PMF may lead to death. Advanced complicated silicosis or PMF can result in heart disease secondary to the lung disease (corpomonal). Accelerated Silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five (5) years of initial exposure. Progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that lung lesions appear earlier and progression is more rapid.
Arizona Sand

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Toxicological data

No data is available on the product itself. See below for individual ingredient acute toxicity data.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>LC50(4hr) inh, rat (Oral, rat)</th>
<th>LD50 (Rabbit, dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (SiO2)</td>
<td>No information available.</td>
<td>No information available.</td>
</tr>
<tr>
<td>Aluminium oxide</td>
<td>No information available.</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>Diiiron trioxide</td>
<td>No information available.</td>
<td>&gt; 10,000 mg/kg</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>No information available.</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>No information available.</td>
<td>No information available.</td>
</tr>
<tr>
<td>Disodium oxide</td>
<td>No information available.</td>
<td>No information available.</td>
</tr>
<tr>
<td>Magnesium oxide</td>
<td>No information available.</td>
<td>No information available.</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>&gt; 6820 mg/m³</td>
<td>&gt; 25,000 mg/kg</td>
</tr>
</tbody>
</table>

Routes of exposure

Eye contact; Skin contact; Ingestion; Inhalation.

Effects of acute exposure

Inhalation: May cause irritation of the mucous membranes. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Contains crystalline silica; prolonged exposure by inhalation of particles can cause serious lung damage, including silicosis. Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis is fatal.

Skin contact: Not an irritant. May cause mechanical irritation.

Eye contact: Description of possible hazardous to health effects is based on experience with this product. According to the classification criteria of the European Union, the product is not considered as being an eye irritant. However, this product can cause mechanical irritation of the eyes. Can scratch the eyes causing immediate or delayed irritation, inflammation of the cornea, redness and tearing.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Potential Chronic Health Effects

None known or reported by the manufacturer.

Other important hazards

None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecological injuries are not known or expected under normal use. Ingredients present in this product are not considered acutely toxic for the environment. There is no data available for this product. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

Persistence and degradability

The product itself has not been tested.

Bioaccumulation potential

The product itself has not been tested.
SAFETY DATA SHEET

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Mobility in soil
- The product itself has not been tested.

Results of PBT and vPvB assessment
- This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

Other Adverse Environmental effects
- None known.

Water contaminating class (Germany)
- 1 (self classified)

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods:

Handling for Disposal
- Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

Methods of Disposal
- Dispose of in accordance with the European Directives on waste and hazardous waste. Waste must be classified and labelled prior to recycling or disposal. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14. TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>UN proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Packing Group</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR/RID</td>
<td>None</td>
<td>not regulated</td>
<td>Not regulated</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>EU ADR/RID Classification Code</td>
<td>Not applicable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU ADR / RID Hazard Identification Number</td>
<td>Not applicable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADR/RID Additional information</td>
<td>Not classified as dangerous for conveyance in the meaning of the regulations for the transport of dangerous goods by road and rail.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICAO/IATA</td>
<td>None</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>ICAO/IATA Additional information</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>IMDG</td>
<td>None</td>
<td>Not regulated</td>
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<td>None</td>
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<tr>
<td>IMDG Additional information</td>
<td>None.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Special precautions for user
- Appropriate advice on safety must accompany the package.
Arizona Sand

SDS Preparation Date (dd/mm/yyyy): 18/04/2012

SAFETY DATA SHEET

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Environmental hazards:

This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

This information is not available.

SECTION 15. REGULATORY INFORMATION

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

1. Substances presenting a health or environmental hazard within the meaning of Directive 67/548/EEC.
2. Classification according to European directive on classification of hazardous preparations 1999/45/EC.
3. This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
4. In accordance with the legislation of the United Kingdom.
5. German legislation on water endangering substances VwVwS (see Section 12).
6. Tables of occupational diseases according to the Labor Code, National Institute of Research and Safety (INRS, France - RG 25 - Diseases resulting from inhalation of mineral dust containing crystalline silica (quartz, cristobalite, tridymite), crystalline silicates (kaolin, talc), graphite or coal.

Chemical safety assessment:

A chemical safety assessment has not been carried out by the Manufacturer of this product.

SECTION 16. OTHER INFORMATION

Legend:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS: Chemical Abstract Services
EC: European Community
EN: European Standard
EU: European Union
IATA: International Air Transport Association
IBC: Intermediate Bulk Container
ICAO: International Civil Aviation Organisation
IMDG: International Maritime Dangerous Goods
Inh: Inhalation
IUCLID: International Uniform Chemical Information Database
LC: Lethal Concentration
LD: Lethal Dose
OECD: Organisation for Economic Co-operation and Development
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS: Safety Data Sheet

Information Source:

1. Material Safety Data Sheet from manufacturer.
2. Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2012 (Chempendium, RTECs, HSDB, INCHEM).
6. Health and Safety Executive; Respirable crystalline silica - Phase 2 - Carcinogenicity; EH75/5; 2003.

Preparation Date (dd/mm/yyyy): 18/04/2012
SAFETY DATA SHEET

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R-Phrases (Full text):
- R35 - Causes severe burns.
- R37/38 - Irritating to respiratory system and skin.
- R40 - Limited evidence of a carcinogenic effect.
- R41 - Risk of serious damage to eyes.

Refer to section 2 for additional R phrases not listed here.

Other special considerations for handling:
- Provide adequate information, instruction and training for operators.

DISCLAIMER

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END OF DOCUMENT