MATERIAL SAFETY DATA SHEET

(TITANIUM SPONGE)

Manufacturer: Kerala Minerals and Metals Ltd.
Chavara, Kollam
Kerala-691583
India
www.kmmll.com

SECTION 1: Product Identification

Chemical Name : Titanium Sponge
CAS Registry Number : 7440-32-6
Formula : Ti
Chemical Family : Metal or element
Synonym : C.P. Titanium

SECTION 2: Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Percent</th>
<th>ACGIH (TWA)</th>
<th>OSHA (PEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title compound</td>
<td>7440-32-6</td>
<td>100%</td>
<td>no data</td>
<td>no data</td>
</tr>
</tbody>
</table>

SECTION 3: Hazards Identification

Emergency Overview : Inhalation hazard as a fine dust or fume.
Primary Routes of Exposure : Ingestion, Inhalation (of dust or fume)
Eye Contact : The dust may cause slight to mild irritation of the eyes
Skin Contact : The dust may cause slight to mild irritation of the skin
MATERIAL SAFETY DATA SHEET

Inhalation: Hazard associated with inhalation of fine dust or fume. Maybe irritating to nasal cavity and respiratory tract.

Ingestion: No specific information is available on the physiological effects of ingestion may cause vomiting and diarrhea.

Acute Health Effects: Dust may be irritating to skin, eyes and respiratory tract. Ingestion can lead to gastrointestinal effects, vomiting and nausea.

OSHA: No

SECTION 4: First Aid Measures

Eye Exposure: (For dust) Immediately flush the eyes with copious amount of water for at least 10-15 minutes. A victim may need assistance in keeping their eye lids open. Immediate medical attention.

Skin Exposure: (For dust) Wash the affected area with water. Contaminated clothes if necessary. Seek medical assistance if irritation persists.

Inhalation: (For dust) Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing or pain. In such cases seek immediate medical assistance.

Ingestion: Seek medical attention immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.
MATERIAL SAFETY DATA SHEET

SECTION 5: Fire Fighting Measures

Flash Point : None
Auto ignition Temperature : None
Explosion Limits : None
Extinguishing Medium : Class D extinguishing agent or sand. Use no water.
Special Fire Fighting Procedures : Use appropriate fire procedures for burning metal fire.
Hazardous Combustion and Decomposition Products : None

Unusual Fire or Explosion Hazards : Explosion hazard if in the form of a fine dust mixed with air.

SECTION 6: Accidental Release Measures

Spill and Leak Procedures : Sweep up solid

SECTION 7: Handling and Storage

Handling and Storage : No special storage or handling conditions required.

SECTION 8: Exposure Controls and Personal Protection

Eye Protection : Always wear approved safety glasses when handling a chemical substance in the laboratory.
Skin Protection : Wear protective clothing and gloves.
MATERIAL SAFETY DATA SHEET

Ventilations: If in the form of fine dust, handle the material in an efficient fume hood.

Respirator: If handling materials in the form of a fine dust and ventilation is not available, a respirator should be worn.

Ventilation: If in the form of a fine dust, handle the material in an efficient fume hood.

Additional Protection: No additional protection required

SECTION 9: Physical and Chemical Properties

Color and Form: Gray & Random metal pieces

Molecular Weight: 47.90

Melting Point: 1668°C

Boiling Point: 3260°C

Vapour Pressure: No data

Specific Gravity: 4.54

Odour: None

Solubility in Water: Insoluble

SECTION 10: Stability and Reactivity

Stability: Air and moisture-stable solid

Hazardous Polymerization: None

Conditions to Avoid: None

Incompatibility: Halogens (Especially as a powder)

Decomposition Products: None
MATERIAL SAFETY DATA SHEET

SECTION 11: Disposal Considerations
Disposal : Dispose of according to local, state and federal regulations.

SECTION 12: Transportation
Shipping Name : Titanium sponge
Hazard Class : 4.1
UN ID Number : UN#2878
Shipping Name (IATA) : Titanium sponge
Packaging Group (IATA) : III

SECTION 13: Other Information
Disclaimer: The information herein is believed to be accurate and reliable as of the date compiled. However, KMML makes no representation, warranty, or guarantee of any kind with respect to the information contained in this document or any use of the product based on this information.

Preparation Date : 17 November 2013