SRIVARAHI
SILICATE INDUSTRIES PRIVATE LIMITED
QUALITY IS OUR TRAIT
Manufacturers of SODIUM SILICATE

MATERIAL SAFETY DATA SHEET

1. Identification of the substance / Preparation And Company.

1.1 Identification of substance or preparation:

Commercial Product Name : Bentonite

1.2 Company / Undertaking Identification:

Manufacturer / Distributor : Manufacturer

Address : 3094, Block No. 24, Sector-III, Jeevan Bhima Nagar, Annanagar West Extn, **Chennai – 600 101**, India.

Mobile : +91- 8124817834

E-Mail Id : commercials@srivarahichemicals.com

2. Composition / Information on Ingredients:

2.1 Chemical Characterization (substance) **:** Bentonite

2.2 Chemical Formula : Al_2O_3. $4SiO_2$. H_2O Montmorillonite.

CAS No. : CAS # 1302-78-9

Hazardous Ingredients : Crystalline Silica (Quartz, 14808-60-7) is Present at less than 1.0% as a naturally Occurring component not removed from the Clay ore during processing. See Sec. 11 for Further information.

3. Hazards Identification:

3.1 Effects of a single (Acute) Overexposure:

Inhalation	: Short term exposure to high dust levels could Cause minor irritation. Long term exposure to High concentrations of dust should be avoided Due to the presence of Quartz which can cause Severe and permanent lung damage when Inhaled. Control dust levels with engineering Controls (Local exhaust ventilation). Prevent Dust inhalation with use of a NIOSH approved Dust Respirator if engineering controls are Inadequate.
Skin Contact	: None Known.
Swallowing	: No
Eye Contact	: No

3.2 Effects of Repeated (Chronic) Overexposure: Breathing of Excessive dust may Cause pulmonary disease

3.3 Other effects of Overexposure:

Breathing of excessive Dust	: May cause irritation to nasal respiratory passages.
Irritancy of Material	: N.A.
Sensitisation	: N.A.
Synergistic Materials	: N.A.

3.4 Medical Conditions Aggravated by Overexposure: Respiratory Disorders

3.5 Significant Laboratory data with possible relevance to Human Hazard Evaluation:

3.6 Carcinogenicity **:** Bentonite is believed to be physiologically inert.

4. First Aid Measures:

4.1 Inhalation : Remove to fresh air. If not breathing, give Artificial respiration. If breathing is difficult, give oxygen.

4.2 Skin Contact : Wash exposed area with soap and water. If irritation persists, seek medical assistance.

4.3 Swallowing : Give several glasses of milk or water. Vomiting may occur spontaneously, but it is not necessary to induce. Never give anything by mouth to an unconscious person.

4.4 Eye Contact : Wash eyes with plenty of water for least 15 mins, lifting lids occasionally. Seek medical aid.

4.5 Notes to Physician : None

5. Fire Fighting Measures:

5.1 Flash point (Test Method) : N.A. (non-flammable)

5.2 Auto Ignition Temperature : N.A

5.3 Flammable Limits in Air, % by volume : a. Lower Expl. Limit: N.A
b. Upper Expl. Limit: N.A

5.4 Extinguishing Media : N.A. (non-flammable unburnable)

5.5 Special Fire Fighting Procedures / Caution : Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

5.6 Unusual Fire and Explosion Hazards : Negligible fire Hazard when exposed to heat or flame.

5.7 Hazardous Combustion Products : None

6. Accidental Release Measures:

6.1 Steps to be taken if Material is released or spilled : Wear protective equipment. Recover spilled material to original container for sale or to a suitable waste container. Minimize dusting during clean up. Flush residue with water.

Personal Precautions : Wear appropriate personal protective equipment.

Environmental Precautions : None

6.2 Waste Disposal method/ methods for cleaning up:
Product is not hazardous according to RCRA criteria or listing as supplied. Dispose off with accordance with local, state and federal regulations dealing with a waste product.

7. Handling and storage:

7.1 Precautions to be taken in storage	: Store in cool, dry, well ventilated place away from incompatible materials.
7.2 Precautions to be taken in Handling	: Wash thoroughly after handing.

8. Exposure controls / personal protection:

8.1 Ventilation / Engineering Controls	:Local Exhaust : Yes
Mechanical (general)	: N.A
Special	: N.A
Other	: N.A
8.2 Respiratory Protection	: NIOSH approved Dust Mask
8.3 Skin Protection	: Wear appropriate gloves to prevent skin exposure.
8.4 Eye Protection	: Safety Glasses w/ side shields.
8.5 Other Protective Equipment	: Wear appropriate polymeric coated apron clothing to prevent skin exposure.

9. Physical and Chemical Properties:

9.1 Molecular weight	: N.A.
9.2 Specific Gravity	: 2.4-2.5 (Water=1)
9.3 Gas Density	: N.A
9.4 Vapour Pressure	: N.A
9.5 Solubility in water	: Insoluble
9.6 Percent Volatiles by volume	: Least
9.7 Evaporation Rate	: N.A
9.8 pH	: 9.0 - 9.5
9.9 Sublimation Point	: N.A
9.10 Appearance, Odour and State	: Grey, Light Tan Powder, Lumps, Granules, Odourless.

10. Stability and Reactivity:

10.1 Stability	: Stable and swells to 12 times its volume when added to water
10.2 Incompatibility (materials to avoid)	: Molten Lithium attacks silicates.
10.3 Hazardous Decomposition Products	: Acid smoke and Irritating Fumes
10.4 Hazardous Polymerization	: Will not occur.
10.5 Conditions to Avoid	: Heat, flames.

11. Toxicological Information:

The International Agency for research on cancer has determined that over-exposure to Crystalline silica can cause lung cancer and silicosis, a progressive lung disease in humans.

Health effects from exposure to crystalline silica occur only when it is inhaled.

Inhalation effects	**:**Crystalline silica has shown to cause Silicosis and Lung cancer. Crystalline silica only causes these conditions when inhaled.
Skin Contact	**:**Prolonged skin contact may lead to drying or cracking of the skin due to the absorption of the moisture.
Eye Contact	**:**As with any dust, will be irritating to the eyes due to physical abrasion.
Medical Conditions Aggravated	**:** Respiratory Disorders.
Occupational Exposure Limits	**:**Studies have shown that the crystalline silica is evenly distributed throughout all particle sizes of this product. Keep dust levels below permissible limits.
ACGIH TWA	: 0.1 mg/cu.m (as quartz)
ACGIH STEL	: N.A.
OSHA PEL (respirable)	: 10 mg/cu.m-%SiO_2 +2
OSHA PEL (total dust)	: 30 mg/cu.m-%SiO_2 +2

12. Ecological Information:

12.1 Mobility	: N.A
12.2 Persistence and degradability	: N.A
12.3 Bioaccumulations	: N.A
12.4 Ecotocity	: N.A

13. Disposal Considerations:

13.1 Waste Disposal Method	: Dispose off with accordance with local, state and federal regulations dealing with a waste product.

14. Transport Information:

14.1 DOT / IMO Shipping Name	: This is not dangerous goods, it can be carried via airways
14.2 Hazard Class	: Non-Hazardous
14.3 Identification Number	: N.A
14.4 Product RQ	: N.A
14.5 Shipping Label(s)	: N.A
14.6 Placard (when required)	: N.A
14.7 Special Shipping Information	: N.A

15. Regulatory Information : OSHA Hazard Communication categories: Irritant.

16. Other Information:

16.1 Additional Safety and Equipment	: Keep dust to a minimum. Use Adequate Ventilation.
16.2 Notes to Physician	: None
16.3 Protective Clothing and Equipment	: Wear long protective clothing with an apron to keep dust off clothes.
16.4 Other Protective Equipment	: Wear appropriate clothing to prevent skin exposure.
16.5 Other Hazardous Conditions of Handling Storage and use	: Contains crystalline silica, inhalation of which may cause cancer. Wear proper respiratory protective equipment.