

MATERIAL SAFETY DATA SHEET

Product Name: ACTAL

IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY /UNDERTAKING

Chemical description Fullers Earth, Montmorillonite

Manufacturer Ashapura Volclay Limited

3rd Floor, Jeevan Udyog Building, 278, D.N. Road, Fort 400001, Mumbai, Maharashtra, India Telephone: + 91 22 6665 1700 Fax: + 91 22 2207 9395/2207 4452

Email: be@ashapura.com

2. HAZARDS IDENTIFICATION (R-Phrases):

Environmental hazards Not identified as environmental hazard.

Health Effects

General:

Low irritant - low toxicity. It is not readily absorbed through the skin or gastrointestinal tract.

Eye: R36 - Irritating to eyes

Low to moderate irritant. Dust may cause eye discomfort and irritation, pain, redness and conjunctivitis.

Skin: Low irritant. Prolonged and repeated exposure to dust/powder may result in irritation due to mechanical action.

Inhaled: R48/20 (Harmful: danger of serious damage to health by prolonged exposure through inhalation) Inhalation of high dust concentrations may cause coughing and mild irritation. Repeated inhalation of dusts containing crystalline silica over time can cause progressive fibrotic lung disease (silicosis) and increase the risks of developing respiratory cancer. Lung damage may progress even if the worker is removed from exposure. Silicosis can result in death from cardiac failure or the destruction of lung tissue. The extent and severity of lung damage depends on a variety of factors including particle size, percentage of silica, natural resistance, dust concentration, and length of exposure.

Swallowed: R22 - Harmful if swallowed

NFPA Rating: Flammability = 0 (Not flammable)



3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name of the Substance: Montmorillonite

Synonyms: Acid activated bentonite

| Chemical Name | CAS-No | Content (wt%) | |
|----------------------|------------|---------------|--|
| Montmorollinite | 67479-91-8 | 83-85 | |
| Quartz | 99439-28-8 | 8-9 | |
| Anhydrite | 7778-18-9 | 2-3 | |
| Anatase | 98084-96-9 | 2-3 | |

Physical Description/Properties

| Appearance and Odour: | Grey/pink granular powder | Boiling Point: Not available |
|-----------------------|---------------------------|------------------------------|
| Solubility in water: | Nil | Bulk Density: 0.9 g/cc |
| Vapour Density: | Not applicable | Flashpoint: Not Relevant |
| Vapour pressure: | Not applicable | Flammability: Non-Flammable |
| | | Melting Point Not available |

Melting Point Not available Volatile component: Nil

4. FIRST AID MEASURES

Eye (Dust exposure): Flush well under running water. If irritation develops, seek medical attention.

Skin: Remove contaminated clothing and gently flush affected areas with water. Seek medical attention if irritation develops. Launder clothing before reuse.

Inhalation (Dust exposure): If over exposure occurs, leave exposure area immediately. Seek medical attention if symptoms develop.

Swallowed Swallowing is considered an unlikely mode of entry in commercial/industrial environments. However, if large quantities of dust are ingested, seek medical advice.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Special Protective Equipment: Wear self-contained breathing apparatus and protective suit



6. ACCIDENTAL RELEASE MEASURES

Personal Precaution: Wear a dust mask if dust is generated above exposure limits.

Environmental precautions: No special environmental precautions required.

Methods for cleaning up: Avoid the generations of dusts during clean-up. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water.

7. HANDLING AND STORAGE

Handling: Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage: No special restrictions on storage with other products. Guard against dust accumulation of this material. Keep in a cool, well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional exposure data Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Engineering measures to If material is ground, cut, or used in any operation which may **reduce exposure** generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection: Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

Hand protection: Chemical-resistant protective gloves according to EN 374, EN388, and EN420

Eye protection: Avoid contact with eyes. Wear dust goggles. Eye wash fountain is recommended.

Skin and body Protection: No special protective equipment required.

Environmental exposure Controls: No special measures required

Hygiene measures: Use good industrial hygiene practices in handling this material.

Control parameters: Respirable dust fraction.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state Solid

Form Granules

Color Gray to off white

Odor None

Boiling Point Not available

Flammability Non-Inflammable

Flammability limits in air, upper, % by volume

Non-Inflammable

Flammability limits in air,

lower, % by volume

Non-explosive

Vapor pressure Not available

Solubility (water) Negligible

Melting point Not available

Auto-ignition temperature Non- ignitable

Specific gravity 2.5

Percent volatile Nil

10. STABILITY AND REACTIVITY

Conditions to avoid None known

Hazardous decomposition

products

None known

Stability Stable at normal conditions

Materials to avoid None known

Hazardous polymerization Will not occur



11. TOXICOLOGICAL INFORMATION

Routes of exposure Inhalation. Eye contact. Skin contact

Irritation, Sensitization, Other data Toxicology

Eye irritation Result: Moderately irritating to mucous membranes.

Sensitization Result not sensitizing **Repeated dose toxicity** No data available

Human experience Dust may render the skin dry.

Chronic toxicity Prolong exposure to silica & its polymorphs may cause silicosis.

According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

12. ECOLOGICAL INFORMATION

Ecotoxicity This material is not expected to be harmful to aquatic life.

Environmental effects Ecological injuries are not known or expected under normal use.

13. DISPOSAL CONSIDERATIONS

Disposal instructions Dispose in accordance with all applicable local regulations.

Material should be recycled if possible.

14. TRANSPORT INFORMATION

ADR Not regulated as dangerous goods.

IATA Not regulated as dangerous goods.

IMDG Not regulated as dangerous goods.



| | | MATION |
|--|--|--------|
| | | |
| | | |

Follow local regulatory instructions.

16. OTHER INFORMATION

Recommended restrictions: Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Further information: This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.

Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier.