

SIGMA-ALDRICH

MATERIAL SAFETY DATA SHEET

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Version 1.4

Section 1 - Product and Company Information

| | |
|---------------------------|-------------------------|
| Product Name | BENTONITE |
| Product Number | B3378 |
| Brand | SIGMA |
| Company | Sigma-Aldrich |
| Street Address | 3050 Spruce Street |
| City, State, Zip, Country | SAINT LOUIS MO 63103 US |
| Technical Phone: | 314 771 5765 |
| Emergency Phone: | 414 273 3850 Ext. 5996 |
| Fax: | 800 325 5052 |

Section 2 - Composition/Information on Ingredient

| | | |
|----------------|-----------|----------|
| Substance Name | CAS # | SARA 313 |
| BENTONITE | 1302-78-9 | No |

| | |
|---------------|--|
| Formula | H2Al2O6Si |
| Synonyms | Albapel Premium USP 4444 * Bentonite 2073 * Bentonite magma * HI-Jel * Invite I.G.B.A * Magbond * Montmorillonite * Panther creek bentonite * Southern bentonite * Tixoton * Volcaly bentonite BC * Volclay * Wilkinite * Montmorillonite |
| RTECS Number: | CT9450000 |

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution: Avoid contact and inhalation. Target organ(s): Lungs.

HMIS RATING

HEALTH: 1*
FLAMMABILITY: 0
REACTIVITY: 0

NFPA RATING

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is
conscious. Call a physician

INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Wear dust mask.
Hand: Protective gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

EXPOSURE LIMITS

| Country | Source | Type | Value |
|---------|--------|------|-----------|
| | OSHA | PEL | 0.1 mg/m3 |

Section 9 - Physical/Chemical Properties

Appearance Physical State: Solid
 Color: Grey
 Form: Powder

| Property | Value | At Temperature or Pressure |
|-----------------------|-----------|----------------------------|
| Molecular Weight | 180.1 AMU | |
| pH | 6.0 - 9.0 | |
| BP/BP Range | N/A | |
| MP/MP Range | N/A | |
| Freezing Point | N/A | |
| Vapor Pressure | N/A | |
| Vapor Density | N/A | |
| Saturated Vapor Conc. | N/A | |
| SG/Density | 2.4 g/cm3 | |
| Bulk Density | N/A | |
| Odor Threshold | N/A | |
| Volatile% | N/A | |
| VOC Content | N/A | |
| Water Content | N/A | |
| Solvent Content | N/A | |
| Evaporation Rate | N/A | |
| Viscosity | N/A | |
| Surface Tension | N/A | |
| Partition Coefficient | N/A | |
| Decomposition Temp. | N/A | |
| Flash Point | N/A | |
| Explosion Limits | N/A | |
| Flammability | N/A | |
| Autoignition Temp | N/A | |
| Refractive Index | N/A | |
| Optical Rotation | N/A | |
| Miscellaneous Data | N/A | |
| Solubility | N/A | |

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Materials to Avoid: Strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Nature of decomposition products not known

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed

TARGET ORGAN(S) OR SYSTEM(S)
Lungs.

SIGNS AND SYMPTOMS OF EXPOSURE
Exposure may cause: Lung irritation. Asthma.

TOXICITY DATA

Intravenous

Rat

35 MG/KG

LD50

Remarks: Lungs, Thorax, or Respiration: Acute pulmonary edema

CHRONIC EXPOSURE - CARCINOGEN

Species: Mouse

Route of Application: Oral

Dose: 12000 GM/KG

Exposure Time: 28W

Frequency: C

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION

S: 22-24/25

Safety Statements: Do not breathe dust. Avoid contact with skin and eyes

US CLASSIFICATION AND LABEL TEXT

US Statements: Caution: Avoid contact and inhalation Target
organ(s): Lungs.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No
TSCA INVENTORY ITEM: Yes

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale
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