



## SAFETY DATA SHEET (SDS) – BENTONITE

### 1. Identification

**Product Name:** Bentonite (Sodium/Calcium Bentonite)

**Synonyms:** Montmorillonite clay, Smectite clay, Drilling-grade bentonite (if applicable)

**Recommended Use:**

- Drilling fluids, foundry, construction, pelletizing, absorbent, sealing/lining, industrial applications

**Company Identification:**

**Basekim Kimyasal urunler LTD**

Turan Gunes Blv. Ilkbahar Mah. Sinpas Altinoran Tower 2, Floor, Unit 146, Ankara, Türkiye

**Transportation Emergency Response:**

Logistic: **88552948**

**Health Emergency:**

Basekim Emergency Information Center: Located in Ankara. International collect calls accepted.

Tel: **(312) 514 7055** or **(312) 514 7081**

### 2. Hazard(s) Identification

**GHS Classification:** Not classified as hazardous under GHS for most commercial bentonite grades (as supplied).

**Label Elements:** No GHS pictogram required (typical).

**Potential Hazards:**

- **Dust inhalation may cause respiratory irritation** (mechanical irritation).
- **Long-term repeated inhalation of mineral dust** may cause lung effects.
- Some bentonite products **may contain small amounts of crystalline silica (quartz)** depending on origin—**respirable dust** can be hazardous with chronic exposure.

**Signal Word:** None (typical)

**Hazard Statements:** None (typical)

**Precautionary Statements (recommended):**



- Avoid breathing dust.
- Use ventilation and respiratory protection when dust is generated.
- Wash hands after handling.

**Symptoms:** Coughing, throat/nose irritation, dryness; eye irritation from dust.

---

### 3. Composition/Information on Ingredients

**Substance:** Bentonite (primarily montmorillonite)

**Typical Main Component:** Montmorillonite clay (variable % depending on grade)

**Impurities/Additives:** May contain minor naturally occurring minerals (e.g., feldspar, calcite, gypsum, quartz).

**Crystalline Silica (Quartz):** May be present in low % depending on deposit (if present, the hazard relates to respirable dust fraction).

Note: Exact composition varies by quarry/source and product grade. COA should be referenced for batch-specific data.

---

### 4. First-Aid Measures

**Inhalation:** Move to fresh air. If symptoms persist, get medical advice. If breathing difficulty occurs, seek immediate medical attention.

**Skin Contact:** Wash with soap and water. If irritation develops, get medical advice.

**Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

**Ingestion:** Rinse mouth. Drink water. Do not induce vomiting unless instructed by medical personnel. Seek medical advice if large amounts ingested or discomfort occurs.

**Most important symptoms/effects:** Mechanical irritation to eyes/respiratory tract due to dust.

---

### 5. Fire-Fighting Measures

**Flammability:** Not flammable.

**Suitable Extinguishing Media:** Use media suitable for surrounding fire (water spray, foam, dry chemical, CO<sub>2</sub>).

**Specific Hazards:** None specific to product.

**Protective Equipment:** Firefighters should wear standard protective equipment and SCBA in case of fire in



the surrounding area.

---

## 6. Accidental Release Measures

**Personal Precautions:** Avoid generating dust. Use PPE (dust mask/respirator if needed, goggles).

**Environmental Precautions:** Prevent large releases to drains if it may cause blockage/sedimentation.

**Cleanup Methods:**

- Dry spills: sweep/shovel or vacuum with HEPA filter.
  - Wet methods can reduce dust.
  - Dispose according to local regulations.
- 

## 7. Handling and Storage

**Handling:**

- Minimize dust generation.
- Use local exhaust ventilation where dust is produced.
- Do not eat, drink, or smoke while handling.

**Storage:**

- Keep in a dry, well-ventilated area.
  - Keep packaging sealed to prevent moisture uptake and caking.
  - Store away from strong acids/oxidizers (general precaution).
- 

## 8. Exposure Controls/Personal Protection

**Engineering Controls:** Local exhaust ventilation; dust collection systems.

**Exposure Limits:**



- Nuisance dust / particulate not otherwise regulated may apply depending on jurisdiction.
- If crystalline silica is present, follow applicable occupational exposure limits for **respirable crystalline silica**.

#### Personal Protective Equipment (PPE):

- **Respiratory:** Dust mask (e.g., P2/P3 or N95/N99) when dust levels exceed limits or in poor ventilation.
- **Eyes:** Safety goggles in dusty conditions.
- **Skin:** Work gloves if repeated contact causes dryness/irritation.
- **Hygiene:** Wash hands after handling; launder dusty clothing.

---

## 9. Physical and Chemical Properties

**Appearance:** Grey/cream/brown powder or granules (varies)

**Odor:** Odorless

**pH:** Typically ~8–10 (for slurry; varies by grade)

**Melting/Freezing Point:** Not applicable (mineral solid)

**Boiling Point:** Not applicable

**Flash Point:** Not applicable

**Flammability:** Non-flammable

**Solubility:** Insoluble in water; **swells/disperses** forming slurry

**Bulk Density:** Varies by grade (typical 0.7–1.1 g/cm<sup>3</sup>)

**Viscosity:** Not applicable as solid (slurry rheology depends on grade)

---

## 10. Stability and Reactivity

**Reactivity:** Not reactive under normal conditions.

**Chemical Stability:** Stable.

**Hazardous Reactions:** None expected.

**Conditions to Avoid:** Excessive dust generation; prolonged moisture exposure (caking).

**Incompatible Materials:** Strong acids (may degrade clay structure), strong oxidizers (general precaution).

**Hazardous Decomposition Products:** None under normal use.



## 11. Toxicological Information

**Acute Toxicity:** Not expected to be acutely toxic by ingestion, skin, or inhalation.

**Skin Corrosion/Irritation:** Generally non-irritant; dust may cause dryness/irritation in sensitive individuals.

**Serious Eye Damage/Irritation:** Dust may cause mechanical irritation.

**Respiratory Irritation:** Dust may irritate nose/throat/lungs.

**Chronic Effects:** Prolonged/repeated inhalation of high dust levels may cause lung effects.

**Crystalline Silica Note:** If product contains respirable crystalline silica, chronic inhalation can increase risk of silicosis and lung cancer—control dust exposure accordingly.

## 12. Ecological Information

**Ecotoxicity:** Not expected to be harmful to aquatic life in normal use; may cause turbidity/sedimentation.

**Persistence/Degradability:** Inorganic mineral; not biodegradable.

**Bioaccumulation:** Not expected.

**Mobility in Soil:** Low; may disperse as suspended solids in water.

**Other Adverse Effects:** Large quantities may block drains or affect water clarity.

## 13. Disposal Considerations

Dispose in accordance with local/regional regulations.

- Product as supplied: typically non-hazardous industrial waste.
- Avoid releasing large amounts into waterways or drains.
- Packaging: dispose/recycle per local rules.

## 14. Transport Information

**UN Number:** Not regulated

**UN Proper Shipping Name:** Not applicable

**Transport Hazard Class:** Not applicable

**Packing Group:** Not applicable

**Marine Pollutant:** No

**Special Precautions:** Avoid dust release during handling/transport.



## 15. Regulatory Information

This product is generally not classified as hazardous under GHS in most jurisdictions when supplied as bentonite.

Where applicable, dust exposure regulations apply; if crystalline silica is present, comply with relevant occupational safety standards and exposure limits.

## 16. Other Information

**Revision Date:** 2026-01-29

**Prepared For:** Basekim Kimyasal urunler LTD

**Disclaimer:**

This SDS is provided for occupational safety guidance and is based on general information for bentonite. Actual properties and regulatory classifications can vary by source, grade, and impurity profile. Users are responsible for determining suitability and for compliance with applicable laws and exposure limits. For batch-specific details, refer to COA and any silica analysis available.