

SAFETY DATA SHEET

Rev.04 dated 22th July, 2021**Blue / Green / Pink Bentonite Speckle**

CAS No: 7757-82-6 (Sodium sulphate), 1302-78-9 (Activated bentonite)

HS code: 3802.90.20

EC/EINECS : 215-108-5

Section 1: Chemical Product and Company Identification

- Product Name : Blue/Pink/Green Bentonite Speckle

- Chemical Name: Activated bentonite

- Characteristics: Swelling bentonite

Manufacturer's information:

Ducminh Company limited .

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Product use: Use for Detergent

Section 2: Composition/Information on Ingredients**Composition:**

| Name | CAS No. | Molecular Formula | Wt (%) |
|---|-----------|---------------------------------|----------|
| Activated Smectite group minerals with less than 5% wt crystalline silica | 1302-78-9 | unspecified | 70% max |
| Sodium sulphate | 7757-82-6 | Na ₂ SO ₄ | 25% max |
| Vibracolor Blue/Iragon Yellow/Vibracolor Green/Vibracolor Red | - | - | 0.6% max |
| Additives | - | - | 1% max |
| Water | 7732-18-5 | H ₂ O | 13% max |

Characteristics: Swelling in water**Section 3: Hazards Identification****Hazards identification:****1. Classification of the substance**

Classification according to Regulation (EC) 1272/2008 : Not classified. Bentonite(with less than 10% w/w crystalline silica) and Sodium sulphate does not meet the criteria for hazardous substances

Classification according to Directive 67/548/EEC: Not classified. Bentonite(with less than 10% w/w crystalline silica) and Sodium sulphate does not meet the criteria for dangerous substances

2. Label elements**Symbols/Pictograms:****Signal word:** Warning**Hazard statements:** Caused damage to organs through prolonged or repeated exposure if inhaled.**Precautionary Statements:** Not applicable

Labelling according to Directive 67/548/EEC

Indication of danger: Not applicable**Risk phrases:** Not applicable**Safety phrases:** Not applicable**3. Other hazards:** This substance does not meet the criteria for classification as PBT or vPvB.

No other hazards identified.

Section 4: First Aid Measures**Inhalation:**

If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Skin contact:

Wash with soap and water. If necessary seek medical advice.

Eye contact:

In case of contact, rinse eyes immediately with plenty of water for at least 15 minutes. If symptoms persist seek medical advice.

Ingestion:

Under normal conditions; clean mouth with water and drink afterwards plenty of water. If symptoms persist, seek medical advice.

Most important symptoms and effects, both acute and delayed:

The acute symptoms would pain in the eyes because of dust entry. No delayed effects are anticipated if first aid treatment is applied and is effective.

Indication of any immediate medical attention and special treatment needed:

No need for immediate medical attention

Section 5: Fire and Explosion Data

Flammable limits: This material is noncombustible.

Extinguishing Media: Suitable extinguishing media: The product is not combustible. Use a dry water, powder, foam or CO₂ fire extinguisher to extinguish the surrounding fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. No restriction on the extinguishing media to be used in cases of fire in its vicinity.

Hazards to fire-fighters: Thermal decomposition can lead to release of irritating and toxic gases and vapours.

Fire-fighting equipment: The following protective equipment for fire fighters is recommended when this material is present in the area of a fire: chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. Product on floor when wetted will become slippery and may present a hazard; wear anti-slip boots.

Personal protection: Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. See section 8.

Environmental Hazards: No data

Hazardous combustion products: Thermal decomposition can produce the toxic fumes of Sulphur dioxide.

Section 6: Accidental Release Measures**1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel :**

Ensure adequate ventilation.

Keep dust levels to a minimum.

Keep unprotected persons away.

Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

Avoid inhalation of dust – ensure that sufficient ventilation or suitable respiratory protective equipment is used, wear suitable protective equipment (see section 8).

Take care of wet product on floor, which presents a slip hazard.

For emergency responders :

Keep dust levels to a minimum.

Ensure adequate ventilation.

Keep unprotected persons away.

Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

Avoid inhalation of dust – ensure that sufficient ventilation or suitable respiratory protective equipment is used, wear suitable protective equipment (see section 8).

Take care of wet product on floor, which presents a slip hazard.

2. Environmental

No special requirement.

Contain the spillage. If product is released from trucks in roads, place signposts to divert traffic and remove the spill using vacuum cleaning systems

3. Methods and material for containment and cleaning up

Avoid dust formation; avoid dry sweeping

Use vacuum suction unit, or shovel into bags.

4. Reference to other sections

For more information on exposure controls/personal protection or disposal considerations, please check sections 8 and 13 of this safety data sheet.

Section 7: Handling and Storage

1. Precautions for safe handling

Protective measures

Keep dust levels to a minimum. Minimize dust generation.

Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment refer to section 8 of this safety data sheet. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier.

Advice on general occupational hygiene

Keep dust levels to a minimum.

Minimize dust generation.

General occupational hygiene measures are required to ensure safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating and smoking at the workplace. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.

2. Conditions for safe storage, including any incompatibilities

Store in clean steel or plastic containers. Keep tightly closed in a dry and cool place. Separate from acids, reactive metals, and ammonium salts. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers. Minimise airborne dust generation and prevent wind dispersal during loading and unloading.

3. Specific end use

If you require advice on specific uses, please contact your supplier

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Use with adequate ventilation. Keep containers closed. Safety shower and eyewash fountain should be within direct access.

Personal Protection : Wear chemical goggles, body-covering protective clothing and gloves.

Exposure controls : Wear protective equipment to comply with good occupational hygiene practice. Do not eat, drink or smoke at the work place.

Environmental exposure controls: All ventilation systems should be filtered before discharge to atmosphere. Avoid releasing to the environment. Contain the spillage.

Section 9: Physical and Chemical Properties

| | | | |
|---------------|--|--------------------------------|-------------------------|
| Appearance | Granular | Flash point | Not applicable |
| Odor | Odorless | Explosive properties | non explosive |
| Color | Blue/Pink or Green | Oxidising Properties | no oxidising properties |
| pH | 6.5 - 11 (5% solids in water suspension) | Auto Ignition Point (°C) | Not applicable |
| Boiling Point | Not applicable | Decomposition Temperature (°C) | Not applicable |
| Melting Point | Not applicable | Solubility | Slowly soluble in water |

Section 10: Stability and Reactivity Data

Stability: This material is stable under all conditions of use and storage

Conditions of Instability: Slippery when wet.

Materials to avoid: Avoid storing together with materials that may be affected by dust.

Hazard decomposition product: Thermal decomposition can produce the toxic fumes of Sulphur dioxide (SO₂).

Section 11: Toxicological Information

Acute toxicity Data: The product does not meet the criteria for classification as hazardous according to EC Regulation 1272/2008 and Directive 67/548/EC as amended. The product contains less than 1% w/w RCS (respirable crystalline silica). The product does not acutely toxic.

Inhalation: No data available.

Oral : LD₅₀ > 2000 mg/kg bw (OECD 425, rat)

Dermal : Data not available. Bentonite is almost insoluble and has a low absorption through the skin.

Classification for acute toxicity is not warranted.

Irritation/ corrosion : Eye or skin contact, inhalation

Mixture bentonite and sodium sulphate may cause mechanical irritation to eye

Mixture bentonite and sodium sulphate may cause mechanical irritation to skin

Repeated dose toxicity - Inhalation: Animal and in vitro data indicate a difference between crystalline quartz and the quartz-content of bentonite. A quantitative assessment based on the animal data is not possible as no relevant repeated-dose inhalation study is available.

Human data is restricted to case reports that suggest a relationship between high bentonite exposure (exposures in the early 20 century without state-of-the-art protective measures and maximum dust exposure limits). The link between bentonite exposure and silicosis is not considered to be demonstrated sufficiently.

With regards to classification and labelling of bentonite, the evidence is not considered adequate to come to a conclusion on specific classification of bentonite with specific target organ toxicity upon repeated exposure (STOT- RE). The lung can be affected at repeated high-dose exposure which has been suggested by case reports in humans. Whether this effect occurs only at concentrations overloading the lung's clearance capacity and is not relevant to humans since establishment of general dust exposure limits.

Therefore, classification of bentonite for toxicity upon prolonged exposure by inhalation is not warranted.

Carcinogenicity: No data available. Classification for carcinogenicity is not warranted.

Sepiolite was evaluated by IARC as class 3 ("Cannot be classified as to carcinogenicity to humans"). Based on read-across with sepiolite, mixture bentonite and sodium sunfate were assessed as non-carcinogenic.

Section 12: Ecological Information Ecotoxicity

Toxicity:

Acute/Prolonged toxicity to fish:

LC₅₀(96h) for freshwater fish (rainbow trout): 16000 mg/l.

LC₅₀(24h) for marine water fish (black bass, warmouth bass, blue gill and sunfish): 2800-3200 mg/l

Acute/Prolonged toxicity to aquatic invertebrates:

EC₅₀(96h) for freshwater invertebrates (Dungeness crab): 81.6 mg/l

EC₅₀(96h) for freshwater invertebrates (dock shrimp): 24.8 mg/l

Acute/Prolonged toxicity to aquatic plants:

EC₅₀(72h) for freshwater algae: > 100 mg/l.

Toxicity to micro-organisms e.g. bacteria:

EC₅₀(48h) for daphnia magna (OECD 202): > 100 mg/l

Chronic toxicity to aquatic organisms:

No data available

Toxicity to soil dwelling organisms

No data available

Toxicity to terrestrial plants

No effect was observed on the growth of beans (*Phaseolus vulgaris*) or corn (*Zea mays*) when bentonite was added at a concentration of 135 g/1.6 kg soil

General effect

No specific adverse effects known

Further information

None

Persistence and degradability:

Not relevant for inorganic substances

Bioaccumulative potential:

Not relevant for inorganic substances

Mobility in soil :

Bentonite is almost insoluble and thus presents a low mobility in most soils.

Results of PBT and vPvB assessment :

Not relevant for inorganic substances

Other adverse effects:

No other adverse effects are identified

Section 13: Disposal Considerations

Waste treatment methods

The residues/unused product can be disposed in landfills following national and local regulations.

Dispose in such a way to avoid dust generation. Where possible, recycling should be preferred to disposal.

Packaging

No specific requirements. In all cases dust formation from residues in the packaging should be avoided and suitable protection be assured.

Section 14: Transport Information

Special Provisions for Transport: 42/2020/NĐ-CP Regulations on transporting normal goods in Vietnam

Identification: Not applicable.

DOT UN Status: This material is not regulated hazardous material for transportation.

Land transport (DOT): Non-Hazardous for Land Transport.

Sea transport (IMDG): Non-Hazardous for Sea Transport.

Air transport (ICAO-TI / IATA-DGR): Non-Hazardous for Air Transport.

Section 15: Other Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance:

Authorisations: Not required

Restrictions on use: None

Other EU regulations: Bentonite is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant.

National regulations: Refer to the regulatory exposure limits for workforce enforced in each country (see Annex 1 and link in section 8).

International legislation requirements: The product (bentonite) is not separately classified by the Occupational Health and Safety Administration (OSHA). The product has not been classified as a human carcinogen by OSHA, the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP)

Chemical safety assessment:

Bentonite is exempted from REACH registration in accordance with Annex V.7. A hazard assessment has been conducted under the umbrella of the European Bentonite Association(EUBA) and the outcome was that bentonite is not a hazardous substances. Therefore, in absence of identified hazard, the substance is safe and presents no risk.

Section 16: Other Information References

Prepared by: Ducminh Company Limited

Alphabetical index of substances and articles, United Nations Recommendations on the Transport of Dangerous Goods (UNRTDG) http://www.unece.org/fileadmin/DAM/trans/danger/publi/unrec/rev14/English/05E_Index.pdf, 30 June 2014

PRODUCT SAFETY DATA SHEET for Bentonite prepared in accordance with Annex II of the REACH Regulation EG 1907/2006, Regulation (EG) 1272/2008 and Regulation (EU) 453/2010

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End of Safety Date Sheet