

## Safety Data Sheet BENTONITE

SDS no. ZFAMVG3E • Version 1.0 • Date of issue: 2024-05-05

### SECTION 1: Identification

#### GHS Product identifier

Product name BENTONITE

#### Other means of identification

Bentonite BP037  
Bentonite Powder BT037  
Bentonine Granular BT050

#### Recommended use of the chemical and restrictions on use

Wine and vinegar clarification, suspending agent, base for plasters, cosmetics, bonding agent in foundry sands and pelletising of iron ores, sealant for canal walls, filler in ceramics, refractories, paper coatings, cement slurries for oil-well casings, oil-well drilling fluid, catalyst support, polishes, abrasives, food additive, asphalt modifier, thickener in lubricating greases and fire proofing compositions, decolorising agent and emulsifier for oils.

#### Supplier's details

Name ChemSupply Australia Pty Ltd  
Address 38-50 Bedford Street  
5013 Gillman South Australia  
Australia

Telephone 08 8440 2000  
email [www.chemsupply.com.au](http://www.chemsupply.com.au)

#### Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

### SECTION 2: Hazard identification

#### General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as non-Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

#### Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

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Not a hazardous substance or mixture.

### GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

### Other hazards which do not result in classification

Not a hazardous substance or mixture.

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## SECTION 3: Composition/information on ingredients

### Mixtures

Molecular weight: 180.06

[00] Information on Composition: A colloidal clay (aluminium silicate) composed chiefly of montmorillonite.; This product contains trace levels (<0.1%) of a potential carcinogen.

### Components

Component	CAS no.	Concentration
Bentonite (w/o crystalline silica) (EC no.: 215-108-5)	1302-78-9	<= 100 % (weight)
CLASSIFICATIONS: No data available. HAZARDS: No data available.		

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## SECTION 4: First-aid measures

### Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.  First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact	Wash off with soap and plenty of water. Get medical attention if symptoms occur.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
If swallowed	Do NOT give water if large amount ingested - product will expand when wetted and may cause blockage.  Never give anything by mouth to an unconscious person. Rinse mouth with water.

### Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

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## SECTION 5: Fire-fighting measures

### Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

**Specific hazards arising from the chemical**

Hazards from Combustion Products: May liberate toxic fumes including aluminium oxide and silicon oxides.  
The product is not flammable.

**Special protective actions for fire-fighters**

Wear SCBA and structural firefighter's uniform.

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**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Material can be slippery when wet. Forms smooth, slippery surfaces on floors posing a accident risk.

Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

**Methods and materials for containment and cleaning up**

Small Spillages: Sweep up (avoid generating dust, can be moistened with water) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

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**SECTION 7: Handling and storage**

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.  
Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

**Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.

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**SECTION 8: Exposure controls/personal protection**

**Appropriate engineering controls**

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

**Individual protection measures, such as personal protective equipment (PPE)**

**Eye/face protection**

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

**Skin protection**

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

**Body protection**

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

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Body Protection: Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

### Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

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## SECTION 9: Physical and chemical properties

### Basic physical and chemical properties

Physical state	Solid
Appearance	Beige powder or granules.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flammability	Not flammable under conditions of use but will burn at elevated temperatures. Product when mixed with air can explode in the presence of an appropriate ignition source.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	6 - 9
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Slightly soluble in cold water and hot water. Solubility in Organic Solvents: Insoluble in methanol, diethyl ether, n-octanol and acetone.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 2.5 (water = 1)
Relative vapor density	No data available.
Particle characteristics	No data available.

### Supplemental information regarding physical hazard classes

No data available.

### Further safety characteristics (supplemental)

Other Information: Forms highly viscous suspensions or gels with not less than ten times its weight of water. The property of forming gels is very much increased by the addition of small amounts of alkaline substance, such as magnesium oxide.

High swelling capacity in water.

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## SECTION 10: Stability and reactivity

### Reactivity

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Stable under normal conditions of storage and handling.

### Chemical stability

Stable under normal conditions of temperature and pressure.

### Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

### Conditions to avoid

Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

### Incompatible materials

Strong acids.

### Hazardous decomposition products

May liberate toxic fumes including aluminium oxide and silicon oxides.

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

Ingestion: May be harmful if swallowed.

Inhalation: May cause shortness of breath, irritation, asthma, lung irritation and reduced pulmonary function.

#### Skin corrosion/irritation

May cause irritation.

#### Serious eye damage/irritation

May cause redness, tearing, blurred vision and irritation.

#### Respiratory or skin sensitization

Respiratory sensitisation: Not classified based on available information.

#### Germ cell mutagenicity

Germ cell mutagenicity: Not classified based on available information.

#### Carcinogenicity

No data available.

Sepiolite was evaluated by IARC as class 3 ("Cannot be classified as to carcinogenicity to humans"). Based on read-across with Sepiolite, Bentonite was assessed as non-carcinogenic. Therefore classification of Bentonite for carcinogenicity is not warranted.

#### Reproductive toxicity

Not classified based on available information.

#### Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

#### Specific target organ toxicity (STOT) - repeated exposure

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Not classified based on available information.

### Aspiration hazard

Not classified based on available information.

### Additional information

Chronic Effects: Repeated or prolonged exposure uncontrolled inhalation of dust may cause lung disease, silicosis, with symptoms of shortness of breath and reduced pulmonary functions. Repeated or prolonged skin contact may cause chronic dermatitis. Crystalline silica impurity may cause delayed respiratory disease if inhaled over a prolonged period of time.

Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may cause irritation of the nose, throat and respiratory passages. Inhalation of dust may have cause serious chronic health effects including of Silicosis and lung cancer.

The small quantities of quartz found in this product are, under normal conditions, naturally coated with a layer of amorphous silica and/or bentonite clay. IARC (vol 68, 1997, pg 191-192) has stated that quartz can differ in toxicity depending on the minerals with which it is combined, citing studies in IARC (vol 42, 1987, pg 86) which state that the toxic effect of quartz is reduced by the 'protective effect...due mainly to clay minerals.'

With regard to bentonite, ...montmorillonite pneumoconiosis has not been consistently reported. Based on its surface chemistry, lack of fibrogenicity in experimental systems, and limited human findings, inhaled bentonite is likely to be less dangerous to humans than kaolin. (DOI: 10.1080/08958378.2016.1240727)

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## SECTION 12: Ecological information

### Toxicity

No data available.

### Persistence and degradability

No data available.

### Bioaccumulative potential

Not expected.

### Mobility in soil

No data available.

### Results of PBT and vPvB assessment

No data available.

### Endocrine disrupting properties

No data available.

### Other adverse effects

No data available.

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## SECTION 13: Disposal considerations

### Disposal methods

### Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

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### Sewage disposal

Not expected.

### Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

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## SECTION 14: Transport information

### ADG (Road and Rail)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

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## SECTION 15: Regulatory information

### Safety, health and environmental regulations specific for the product in question

#### Australia SUSMP

Poison Schedule: NS

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## SECTION 16: Other information

### Further information/disclaimer

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

### Preparation information

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), [hcis.safeworkaustralia.gov.au](http://hcis.safeworkaustralia.gov.au)

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)