

# SAFETY DATA SHEET



Revision date: 26-Mar-2024

Revision Number 6

## Section 1: Identification

### Product identifier

**Product Name** BENTONITE  
**Product Code(s)** 000000031131

### Other means of identification

**Synonyms** Bentonite Premium GRD 670USP; 670 Bentonite NFBC; VOLCLAY NFBC

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

**Recommended use** Cosmetic and food applications.  
**Uses advised against** No information available.

### Details of manufacturer or importer

#### Supplier

Ixom Operations Pty Ltd (Bronson & Jacobs division) - incorporated in Australia  
ABN:51 600 546 512  
70 Marple Avenue  
Villawood NSW 2163  
Australia

Telephone Number: +61 2 8717 2929  
Facsimile: +61 2 9755 9611

### Emergency telephone number

Emergency telephone number **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## Section 2: Hazard identification

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).  
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

### GHS Classification

<b>Skin corrosion/irritation</b>	Category 2
<b>Serious eye damage/eye irritation</b>	Category 2A
<b>Carcinogenicity</b>	Category 1A
<b>Specific target organ toxicity (single exposure)</b>	Category 3
<b>Specific target organ toxicity (repeated exposure)</b>	Category 2

### Label elements

Exclamation mark

Health hazard

**Signal word**  
DANGER**Hazard statements**

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H350 - May cause cancer if inhaled

H373 - May cause damage to organs through prolonged or repeated exposure if inhaled

**Precautionary Statements - Prevention**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dusts or mists.

Wash hands and face thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/eye protection/face protection.

**Precautionary Statements - Response**

Specific treatment (see First aid on this SDS).

IF exposed or concerned: Get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

**Other hazards which do not result in classification**

Not applicable.

**Section 3: Composition and information on ingredients**

Chemical name	CAS No.	Weight-%
Bentonite	1302-78-9	>95
Kaolin	1332-58-7	*
Crystalline silica (Quartz)	14808-60-7	<3

**Additional information**

\* proportion not disclosed by supplier. A colloidal clay \*(aluminium silicate) composed chiefly of montmorillonite, sodium bentonite form.

**Section 4: First aid measures****Description of first aid measures**

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<b>General advice</b>	Show this safety data sheet to the doctor in attendance. For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur. IF exposed or concerned: Get medical advice/attention.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed**

**Symptoms** May cause redness and tearing of the eyes. Burning sensation. Coughing and/ or wheezing. Difficulty in breathing. Erythema (skin redness). Swelling of tissue.

**Effects of Exposure** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**Section 5: Firefighting measures****Suitable Extinguishing Media**

**Suitable extinguishing media** Use extinguishing agent suitable for type of surrounding fire.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** Non-combustible. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**Hazardous combustion products** Oxides of silicon. Elemental oxides.

**Special protective actions for fire-fighters**

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**Section 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Ensure adequate

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ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material. Wash thoroughly after handling. Use personal protective equipment as required.

**Other information**

Ventilate the area.

**For emergency responders**

Remove all sources of ignition. Use personal protection recommended in Section 8.

**Environmental precautions****Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up****Methods for containment**

Prevent further leakage or spillage if safe to do so. Do not touch or walk through spilled material. Remove ignition sources. Provide adequate ventilation.

**Methods for cleaning up**

Avoid generation of dust. Cover with damp absorbent (inert material, sand or soil). Vacuum or sweep material and place in a disposal container. Slippery when wet.

**Section 7: Handling and storage****Precautions for safe handling****Advice on safe handling**

Avoid contact with skin, eyes or clothing. Avoid generation of dust. Ensure adequate ventilation. Use personal protection equipment. Keep away from open flames, hot surfaces and sources of ignition. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust or spray mist.

**General hygiene considerations**

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep/store only in original container. Protect from physical damage. Store locked up. Store away from foodstuffs. Store away from incompatible materials (refer to SDS). Keep container closed when not in use.

**Incompatible materials**

None known based on information supplied.

**Section 8: Exposure controls and personal protection****Control parameters****Exposure Limits**

No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Chemical name	Australia	New Zealand	ACGIH TLV
Bentonite 1302-78-9	-	-	TWA: 1 mg/m <sup>3</sup> respirable particulate matter
Kaolin 1332-58-7	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica,

Crystalline silica (Quartz) 14808-60-7	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>	respirable particulate matter TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter
<b>Chemical name</b>	<b>European Union</b>	<b>United Kingdom</b>	<b>Germany DFG</b>
Kaolin 1332-58-7	-	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	-
Crystalline silica (Quartz) 14808-60-7	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	-

May contain crystalline silica.

Biological Exposure Indices: In Australia the following substance is on a list for which health surveillance is required: Crystalline silica.

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

**Appropriate engineering controls**

**Engineering controls**

Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

**Individual protection measures, such as personal protective equipment**

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



**Eye/face protection**

Goggles.

**Skin and body protection**

Wear suitable protective clothing. Boots. Overalls.

**Hand protection**

Impervious gloves.

**Respiratory protection**

If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

**Environmental exposure controls** No information available.

**Thermal hazards** No information available.

## Section 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Appearance</b>	Powder
<b>Color</b>	Light pink, Off-white
<b>Odor</b>	No discernible odour
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	None known
<b>pH (as aqueous solution)</b>	No data available	None known
<b>Melting point / freezing point</b>	1337 °C	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	2.6	approx.
<b>Water solubility</b>	No data available	None known
<b>Solubility(ies)</b>	Insoluble in Water and common organic solvents. Forms colloidal suspension in water, with strongly thixotropic properties.	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

### Other information

No information available

## Section 10: Stability and reactivity

### Reactivity

**Reactivity** No information available.

### Chemical stability

**Stability** Stable under normal conditions.

### Explosion data

<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.

### Possibility of hazardous reactions

**Possibility of hazardous reactions** None under normal processing.

**Conditions to avoid**

**Conditions to avoid** Dust formation. Avoid exposure to heat, sources of ignition, and open flame.

**Incompatible materials**

**Incompatible materials** None known based on information supplied.

**Hazardous decomposition products**

**Hazardous decomposition products** Oxides of silicon. Elemental oxides.

## Section 11: Toxicological information

**Information on likely routes of exposure**

**Product Information** No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:

**Inhalation** May cause irritation of respiratory tract.

**Eye contact** Causes serious eye irritation.

**Skin contact** Causes skin irritation. Prolonged skin contact may defat the skin and produce dermatitis.

**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Symptoms** Coughing and/ or wheezing. Difficulty in breathing. May cause redness and tearing of the eyes. Erythema (skin redness). Swelling of tissue.

**Acute toxicity**

**Numerical measures of toxicity - Product Information**

No information available

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Bentonite	> 2000 mg/kg ( Rat )	-	>5.27 mg/l, 4 hr ( Rat )
Kaolin	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-

See section 16 for terms and abbreviations

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** May cause cancer.

Chemical name	Australia	European Union	IARC
Crystalline silica (Quartz) - 14808-60-7	Carc. 1A	-	Group 1

#### Legend

##### IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

**Reproductive toxicity** No information available.

**STOT - single exposure** May cause respiratory irritation.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure if inhaled.

**Aspiration hazard** No information available.

**Chronic effects:** Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) caused by particles < 0.5 microns penetrating and remaining in the lungs. Long term exposure to high levels of kaolin dust could cause a reduction in lung capacity. Kaolin dust appears to have fibrogenic potential in the absence of crystalline silica. Pneumoconiosis can exist as simple and complicated forms, with the complicated forms more often associated with respiratory symptoms and changes. Exposure to crystalline silica apparently enhances the severity of pneumoconiosis. For crystalline silica (inhaled in the form of respirable quartz or cristobalite from occupational sources): This material has been classified by the International Agency for Research on Cancer (IARC) as a Group 1 agent. Group 1 - the agent is carcinogenic to humans. Inhaling crystalline silica containing dust can aggravate respiratory conditions such as asthma or emphysema. Long term exposure to mineral dust which contains crystalline silica can cause the lung disease silicosis.

The toxicity of crystalline silica is directly proportional to the ability of any particle to reach the lower respiratory tract. Particles with an aerodynamic diameter below 10 um are likely to be most harmful to humans, as they reach the lower respiratory tract and are less readily removed by the lungs.

Epidemiological studies in humans have revealed that crystalline silica may cause lung cancer, silicosis, lymph node fibrosis, airways disease, emphysema and lung inflammation.

## Section 12: Ecological information

### Ecotoxicity

**Aquatic ecotoxicity** Keep out of waterways.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Bentonite	-	LC50: =19000mg/L (96h, Oncorhynchus mykiss)	-	-



**Terrestrial ecotoxicity** There is no data for this product.

**Persistence and degradability**

**Persistence and degradability** No information available.

**Bioaccumulative potential**

**Bioaccumulation** There is no data for this product.

**Mobility**

**Mobility** No information available.

**Other adverse effects**

**Other adverse effects** No information available.

### **Section 13: Disposal considerations**

**Waste treatment methods**

**Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

**Contaminated packaging** Dispose of in accordance with federal, state and local regulations.

See section 8 for more information

### **Section 14: Transport information**

**ADG** Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

**IATA** Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

**IMDG** Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No information available

### **Section 15: Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**National regulations**

**Australia**

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS). Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

See section 8 for national exposure control parameters

#### Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

No poisons schedule number allocated

**Poison Schedule Number** Not applicable

#### Australian Industrial Chemicals Introduction Scheme (AICIS)

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Bentonite - 1302-78-9	Present	-
Kaolin - 1332-58-7	Present	-
Crystalline silica (Quartz) - 14808-60-7	Present	-

#### Illicit Drug Precursors/Reagents

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

#### International Inventories

##### AIIC

All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.

##### NZIoC

All the constituents of this material are listed on the New Zealand Inventory of Chemicals.

##### TSCA

Contact supplier for inventory compliance status.

##### DSL/NDSL

Contact supplier for inventory compliance status.

##### EINECS/ELINCS

Contact supplier for inventory compliance status.

##### ENCS

Contact supplier for inventory compliance status.

##### IECSC

Contact supplier for inventory compliance status.

##### KECL

Contact supplier for inventory compliance status.

##### PICCS

Contact supplier for inventory compliance status.

#### Legend:

**AIIC**- Australian Inventory of Industrial Chemicals

**NZIoC** - New Zealand Inventory of Chemicals

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

#### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

### Section 16: Other information

Supplier Safety Data Sheet; 05/ 2023

**Reason(s) For Issue:** 5 Yearly Revised Primary SDS  
Change in Hazardous Chemical Classification  
Update in Toxicological Information

**Prepared By** This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).

**Revision date:** 26-Mar-2024

**Revision Note:**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

SVHC: Substances of Very High Concern for Authorization:  
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances  
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances  
STOT: Specific Target Organ Toxicity  
ATE: Acute Toxicity Estimate  
LC50: 50% Lethal Concentration  
LD50: 50% Lethal Dose

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
Environmental Protection Agency  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
Australian Industrial Chemicals Introduction Scheme (AICIS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
U.S. National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Disclaimer**

**This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.**

If clarification or further information is needed, the user should contact their Bronson & Jacobs representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris and Australian Botanical Products.

**End of Safety Data Sheet**