



## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Product name** BENTONITE CHIPS (ALL GRADES)  
**Synonyms** BENTONITE • NATURAL SODIUM BENTONITE

#### 1.2 Uses and uses advised against

**Uses** DRILLING FLUID ADDITIVE

#### 1.3 Details of the supplier of the product

**Supplier name** MUDEX (PTY) LTD  
**Address** 5 Coulson Way, Canning Vale, WA, 6155, AUSTRALIA  
**Telephone** + 61 (08) 9390 4620  
**Email** [info@mudex.com.au](mailto:info@mudex.com.au)  
**Website** <http://www.mudex.com.au>

#### 1.4 Emergency telephone numbers

**Emergency** +61 427 558 155

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

#### 2.2 GHS Label elements

No signal word, pictograms, hazard or precautionary statements have been allocated.

#### 2.3 Other hazards

This product is a naturally occurring mineral containing a small quantity of quartz, crystalline silica. Prolonged and repeated exposure to high concentrations of respirable crystalline silica may lead to chronic lung disease such as silicosis. Due to quantity, composition, and nature of use, adverse health effects are not anticipated. Avoid creating dust.

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

#### 3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
BENTONITE	1302-78-9	215-108-5	<=100%

**Ingredient Notes** The respirable fraction of free crystalline silica is < 1%.

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**Eye** If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**Inhalation** If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

**Ingestion** For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). Due to product form and application, ingestion is considered unlikely.

**First aid facilities** Eye wash facilities and safety shower should be available.

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

Repeated exposure to crystalline silica may result in lung fibrosis (silicosis). Principal symptoms of silicosis are coughing and breathlessness. Crystalline silica is classified as carcinogenic to humans (IARC Group 1).

**4.3 Immediate medical attention and special treatment needed**

Treat symptomatically.

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**5. FIRE FIGHTING MEASURES**

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**5.1 Extinguishing media**

Use an extinguishing agent suitable for the surrounding fire.

**5.2 Special hazards arising from the substance or mixture**

Non flammable. May evolve toxic gases if strongly heated.

**5.3 Advice for firefighters**

Treat as per requirements for surrounding fires. Evacuate area and contact emergency services. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

**5.4 Hazchem code**

None allocated.

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**6. ACCIDENTAL RELEASE MEASURES**

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

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

**6.2 Environmental precautions**

Prevent product from entering drains and waterways.

**6.3 Methods of cleaning up**

Moisten with water to prevent a dust hazard and place in sealable containers for disposal.

**6.4 Reference to other sections**

See Sections 8 and 13 for exposure controls and disposal.

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**7. HANDLING AND STORAGE**

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**7.1 Precautions for safe handling**

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

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

Store in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs. Ensure packaging are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills.

**7.3 Specific end uses**

No information provided.

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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**8.1 Control parameters**

**Exposure standards**

No exposure standards have been entered for this product.

**Biological limits**

No biological limit values have been entered for this product.

**8.2 Exposure controls**

**Engineering controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

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### PPE

<b>Eye / Face</b>	Wear dust-proof goggles.
<b>Hands</b>	Wear PVC or rubber gloves.
<b>Body</b>	When using large quantities or where heavy contamination is likely, wear coveralls.
<b>Respiratory</b>	Where an inhalation risk exists, wear a Class P1 (Particulate) respirator.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	TAN OR BEIGE TO LIGHT GREY COLOURED TABLETS
<b>Odour</b>	ODOURLESS
<b>Flammability</b>	NON FLAMMABLE
<b>Flash point</b>	NOT RELEVANT
<b>Boiling point</b>	NOT AVAILABLE
<b>Melting point</b>	NOT AVAILABLE
<b>Evaporation rate</b>	NOT AVAILABLE
<b>pH</b>	7 to 10 (20% slurry)
<b>Vapour density</b>	NOT AVAILABLE
<b>Relative density</b>	2.38
<b>Solubility (water)</b>	SOLUBLE
<b>Vapour pressure</b>	NOT AVAILABLE
<b>Upper explosion limit</b>	NOT RELEVANT
<b>Lower explosion limit</b>	NOT RELEVANT
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	NOT AVAILABLE
<b>Odour threshold</b>	NOT AVAILABLE

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## 10. STABILITY AND REACTIVITY

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### 10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

### 10.2 Chemical stability

Stable under recommended conditions of storage.

### 10.3 Possibility of hazardous reactions

Polymerization is not expected to occur.

### 10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

### 10.5 Incompatible materials

Incompatible with acids (e.g. nitric acid) and alkalis (e.g. sodium hydroxide).

### 10.6 Hazardous decomposition products

May evolve toxic gases if heated to decomposition.

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## 11. TOXICOLOGICAL INFORMATION

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### 11.1 Information on toxicological effects

**Acute toxicity** Based on available data, the classification criteria are not met.

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<b>Skin</b>	Contact may result in irritation, redness and rash.
<b>Eye</b>	Contact may result in irritation, lacrimation, pain and redness.
<b>Sensitisation</b>	Not classified as causing skin or respiratory sensitisation.
<b>Mutagenicity</b>	Not classified as a mutagen.
<b>Carcinogenicity</b>	Not classified as a carcinogen. Crystalline silica is classified as carcinogenic to humans (IARC Group 1). However, adverse health effects are not anticipated given the non respirable nature of the silica quartz in this product (as supplied).
<b>Reproductive</b>	Not classified as a reproductive toxin.
<b>STOT - single exposure</b>	Over exposure may result in irritation of the nose and throat, with coughing.
<b>STOT - repeated exposure</b>	Not classified as causing organ damage from repeated exposure. Adverse health effects associated with silica, such as the development of silicosis (lung fibrosis), is not anticipated unless prolonged and repeated exposure to respirable silica quartz dust occurs.
<b>Aspiration</b>	This product is a solid and aspiration hazards are not expected to occur.

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**12. ECOLOGICAL INFORMATION**

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**12.1 Toxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**12.2 Persistence and degradability**

Not applicable for inorganic substances.

**12.3 Bioaccumulative potential**

Not applicable for inorganic substances.

**12.4 Mobility in soil**

No information provided.

**12.5 Other adverse effects**

The main component/s of this product are not anticipated to cause any adverse effects to plants or animals.

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**13. DISPOSAL CONSIDERATIONS**

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**13.1 Waste treatment methods**

**Waste disposal** Reuse where possible. No special precautions are normally required when handling this product.

**Legislation** Dispose of in accordance with relevant local legislation.

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**14. TRANSPORT INFORMATION**

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**NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA**

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
<b>14.1 UN Number</b>	None allocated.	None allocated.	None allocated.
<b>14.2 Proper Shipping Name</b>	None allocated.	None allocated.	None allocated.
<b>14.3 Transport hazard class</b>	None allocated.	None allocated.	None allocated.
<b>14.4 Packing Group</b>	None allocated.	None allocated.	None allocated.

**14.5 Environmental hazards**

No information provided.

**14.6 Special precautions for user**

**Hazchem code** None allocated.

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**15. REGULATORY INFORMATION**

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**PRODUCT NAME BENTONITE CHIPS (ALL GRADES)**

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

<b>Poison schedule</b>	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
<b>Classifications</b>	Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).
<b>Inventory listings</b>	<b>AUSTRALIA: AIC (Australian Inventory of Industrial Chemicals)</b> All components are listed on AIC, or are exempt.

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**16. OTHER INFORMATION**

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**Additional information**      **RESPIRATORS:** In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

**EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES:** Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: Strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

**PRODUCT NAME BENTONITE CHIPS (ALL GRADES)**

**Report status**

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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