

**1. IDENTIFICATION**

**Product name:** Clay A. Calcium bentonite

**Recommended use:** Adsorbent for oils, organic chemicals and metal ions in waste waters. Stock feed additive. Containment barrier. Dry adsorbent for oils and organics.

**Supplier:** Watheroo Minerals

**Street address:** Unit 8/61 Walters Drive, Osbourne Park, 6017 WA, Australia

**Telephone:** +61 (8) 6391 0114

**Emergency phone number:** +61 418 140 929

**2. HAZARD(S) IDENTIFICATION**

This material is non-hazardous according to the criteria of Safe Work Australia and the GHS.

**Signal Word:** None

**Hazard Classifications**

None

**Hazard Statements**

None

**Prevention Precautionary Statements**

None

**Response Precautionary Statements**

None

**Storage Precautionary Statement**

None

**Disposal Precautionary Statement**

None

**Poison Schedule:** Not Applicable

**DANGEROUS GOODS CLASSIFICATION:**

Not Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**3. COMPOSITION AND INFORMATION ON INGREDIENTS**

CHEMICAL ENTITY	CAS No.	PROPORTION (% w/w)
Calcium bentonite	None	> 60 %
Quartz (in respirable form)	14808-60-7	Less than 0.05%
Non-hazardous components other than listed above	None	Balance to 100%

**4. FIRST AID MEASURES**

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** In the event of significant inhalation of the product, remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Keep at rest until fully recovered. Seek medical advice if any symptoms develop and show this safety data sheet to medical personnel.

**Skin Contact:** The product is not considered to be a skin irritant or skin sensitiser. However, if swelling, redness, blistering

or irritation occur seek medical assistance. For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water. Seek medical assistance if any symptoms develop and show this safety data sheet to medical personnel.

**Eye contact:** The product is not considered to be an eye irritant. However, if in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for at least 15 minutes and seek medical assistance if eye damage is apparent or if eye irritation persists.

**Ingestion:** Rinse mouth with water if ingestion of product has occurred. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

**PPE for First Aiders:** Wear gloves and safety glasses and a respirator in order to avoid the inhalation of dust of the product. If inhalation risk exists wear dust mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Wash clothing and other protective equipment that's contaminated by the product before storing or re-using.

**Notes to physician:** Treat symptomatically.

## 5. FIREFIGHTING MEASURES

**Hazchem Code:** Not applicable

**Suitable extinguishing media:** The product is not considered to be combustible. If the product is involved in a fire use extinguishing media appropriate to the surrounding fire.

**Specific hazards:** Inhalation of dust of the product should be avoided, including long-term inhalation of the dust at very low concentrations.

**Fire fighting further advice:** None.

## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILLS

Stop any leak of product from containers if safe to do so. Wear personal protective equipment to prevent skin and eye contamination. Avoid inhalation of dust. Clean up in a way that minimises the mobilisation of dust. Collect and seal in properly labelled containers or drums for disposal.

### LARGE SPILLS

Stop any leak of product from containers if safe to do so. Clear area of all unprotected personnel. Wear protective equipment to prevent skin and eye contamination and respiratory protective equipment to prevent the inhalation of dust. If no dust of the product is visible, collect for disposal or recycling. If there is dust of the product to be cleared from the site, clean up in a way that minimises the mobilisation of dust then seal in properly labelled containers or drums for disposal.

**Dangerous Goods - Initial Emergency Response Guide No:** Not applicable.

## 7. HANDLING AND STORAGE

**Handling:** Avoid skin and eye contact with the product as both forms of contact are likely to be associated with inhalation. Use respiratory protective equipment to avoid inhalation of dust, or use engineering controls to extract dust from the area during handling so that air-borne concentrations dust are kept below the exposure limits detailed in Section 8.

**Storage:** Store in a secure place to prevent access to the product by personnel who aren't fully aware of the product's hazards. Dust that may be released as a result of damage to packaging should be cleaned up as early as is practical.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### National occupational exposure limits:

Exposure limit:	TWA		STEL		NOTICES
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Substance					
Quartz (SiO <sub>2</sub> ) (respirable fraction)	Not applic.	0.05	Not applic.	-	Carc. 1A

As published by Safe Work Australia.

Under "Notices" in the table above, the Safe Work Australia note "Carc. 1A" indicates that the specified atmospheric contaminant (Quartz, respirable dust) is a Category 1A carcinogen. Respirable quartz is believed to cause cancer by the inhalation route of exposure. Although measurements have shown that concentration of respirable crystalline silica is not high enough for the product to be classified as hazardous under the GHS, poor management of dust during handling or transfer of this product may still result in respirable crystalline silica concentrations that exceed the above exposure limit.

Based on measurements conducted on this product, maintaining an overall dust concentration below 10 mg/m<sup>3</sup> would be expected to maintain the concentration of respirable crystalline silica below the above limit. However, to allow for possible variations between batches of product, it's recommended that in the absence of respiratory protective equipment, an overall dust concentration of less than 5 mg/m<sup>3</sup> is maintained. Ultimately, only an appropriate measurement of dust concentration can indicate whether the exposure limit is being exceeded.

The product may contain traces of crystalline silica, a small proportion of which may be in the respirable form. It's important to ensure that by minimising the generation of dust the above limit for respirable crystalline silica is met. According to the document Guidance on the Interpretation of Workplace Exposure Standards for Airborne Contaminants (Safe Work Australia, April 2013), the respirable fraction is composed of the very fine dust which is able to reach the lower bronchioles and alveolar regions of the lung. As the Equivalent Aerodynamic Diameter of particles reduces from 18 micrometers (µm), the respirability of the particles steadily increases. At an equivalent aerodynamic diameter of just 2 microns, the particles are 97% respirable.

**TWA** - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

**STEL (Short Term Exposure Limit)** - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These 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 exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They should not be considered as a relative measure of toxicity, as toxicity can take many forms, including acute (short-term effects) and chronic (long-term effects).

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering Measures:** When dust of the product is generated, ensure that ventilation is adequate to maintain air concentrations below Exposure Standards. If dust of the product is being generated, use with local exhaust ventilation or while wearing appropriate respiratory protective equipment.

### Personal Protection Equipment:

Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.

Wear gloves and safety glasses. Use with adequate ventilation. If a risk of inhalation of air with concentrations above the exposure limit exists (for example, when handling the substance in a poorly ventilated area), wear a respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Gloves that exclude dust are adequate. However, if other products are being used, and these products have associated skin hazards, the user should make a final assessment. Always wash hands before smoking, eating or drinking.

**Hygiene measures:** Keep away from food, drink and animal feedstuffs. When using do not eat, drink or smoke. Avoid contact with clothing. Avoid eye contact and prolonged skin contact. Avoid inhalation of dust of the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form:</b>	Powder or granules.
<b>Appearance/Colour:</b>	Light brown.
<b>Odour:</b>	None
<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (Water = 1):</b>	2.5 (this does not indicate the bulk density)
<b>Relative Vapour Density (air=1):</b>	Not applicable
<b>Vapour Pressure (20°C):</b>	Extremely low
<b>Flash Point (°C, for 90% ethanol):</b>	Not applicable (does not support combustion)
<b>Flammability Limits (%):</b>	Not applicable (does not support combustion)
<b>Autoignition Temperature (°C):</b>	Not applicable (does not support combustion)
<b>Melting Point/Range (°C):</b>	Greater than 800°C
<b>Boiling Point/Range (°C):</b>	Not available
<b>pH of suspension in pure water:</b>	8.5 (approximate)
<b>Viscosity:</b>	Not applicable
<b>Total VOC (g/Litre):</b>	Not applicable (the product does not contain volatile organic compounds)

Note: these are typical values only.

## 10. STABILITY AND REACTIVITY

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Conditions that are likely to lead to suspension of the dust in air.

**Incompatible materials:** None known.

**Hazardous decomposition products:** None.

**Hazardous reactions:** No known hazardous reactions.

## 11. TOXICOLOGICAL INFORMATION

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

### Acute Effects:

**Inhalation:** Material may be an irritant to mucous membranes and respiratory tract.

**Skin contact:** Contact with skin is not likely to in irritation. However, if contact with skin occurs then steps should be taken to avoid inhalation of the dust.

**Ingestion:** Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Eye contact:** This product is not a eye irritant, but eye contact may result in discomfort and mechanical damage to the eyes.

### Acute toxicity:

**Inhalation:** This material does not meet the classification criteria for acute toxicity by inhalation. Acute toxicity estimate (based on ingredients): LC50 > 20.0 mg/L for vapours or LC50 > 5.0 mg/L for dust and mist or LC50 > 20,000 ppm for gas

**Skin contact:** This material does not meet the classification criteria for acute toxicity, dermal. Acute toxicity estimate (based on ingredients): >2,000 mg/kg bw

**Ingestion:** This material does not meet the classification criteria for acute toxicity, oral. Acute toxicity estimate (based on ingredients): >2,000 mg/kg bw

**Corrosion/Irritancy:** This material does not meet the classification criteria for skin irritancy or corrosion.

**Sensitisation:** Inhalation: this material does not meet the classification criteria for being a respiratory sensitiser. Skin: This material does not meet the classification criteria for being a skin sensitiser.

**Aspiration hazard:** This material does not meet the classification criteria for aspiration toxicity.

**Specific target organ toxicity (single exposure):** This material does not meet the classification criteria for specific target organ toxicity (single exposure).

**Chronic Toxicity:**

**Mutagenicity:** This material does not meet the classification criteria for mutagenicity.

**Carcinogenicity:** Crystalline silica (for example quartz), when present as respirable dust, is a Category 1A carcinogen by the inhalation route. Crystalline quartz is a significant component of the product and a certain component, likely to exceed 0.1% by weight in the product, is known to be present in the respirable form. Measures should be taken to maintain airborne respirable crystalline silica below the exposure limits described in Section 8.

**Reproductive toxicity (including via lactation):** This material has been classified as non-hazardous.

**Specific target organ toxicity (repeat exposure):** Repeated or prolonged inhalation of crystalline silica (for example quartz), when present as respirable dust, can cause damage to lungs and lead to silicosis. Crystalline quartz is present in comparatively low concentrations in the product and but measures should be taken to maintain airborne respirable crystalline silica below the exposure limits described in Section 8.

## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Acute aquatic hazard:** This material has been classified as non-hazardous with respect to aquatic toxicity, acute. Acute toxicity estimate (based on ingredients): >100 mg/L

**Long-term aquatic hazard:** This material has been classified as non-hazardous with respect to aquatic toxicity, chronic. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log K<sub>ow</sub> < 4.

**Ecotoxicity:** No information available, but this product closely resembles the clay component of many soils and does not, when allowed to escape to a waterway, create an aquatic toxicity hazard. However, its presence in a waterway is likely to greatly elevate the turbidity, and the concentration of suspended solids. This can have deleterious effects on aquatic life.

**Persistence and degradability:** No information available.

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

This product closely resembles the clay component of many different types of soil, and addition to soil may offer a legitimate way to dispose of the product. However before doing so it would be necessary to determine regulatory requirements with respect to the disposal or transfer of significant quantities of soil. In particular, it may be necessary under state and federal legislation to ensure that the product has not become contaminated during usage. For example bentonite clay may absorb highly toxic contaminants such as heavy metals and pesticides, which would have the potential to convert the product to a hazardous waste. If in doubt, a licensed waste disposal contractor should be consulted.

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible, material and its container should be recycled. If material or container cannot be recycled, dispose of product in accordance with local, regional, national and international Regulations.

## 14. TRANSPORT INFORMATION

### ROAD AND RAIL TRANSPORT

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

## MARINE TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Not a marine pollutant.

## AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

## 15. REGULATORY INFORMATION

### This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)  
 The Stockholm Convention (Persistent Organic Pollutants)  
 The Rotterdam Convention (Prior Informed Consent)  
 International Convention for the Prevention of Pollution from Ships (MARPOL)  
 Basel Convention (Hazardous Waste)

### This material/constituent(s) is covered by the following requirements:

- All components of this product are listed on or exempt from the AIC.

## 16. ANY OTHER RELEVANT INFORMATION

Reason for issue: Revision of SDS

This Safety Data Sheet has been prepared by CETEC Pty Ltd on behalf of its client. It contains only information related to the safe usage, storage and transport of the product. Other information on this product, such as physical properties not related to safety and concentration limits, may be separately available.

This safety data sheet has been prepared based on the Code of Practice for Preparation of Safety Data Sheets for Hazardous Chemicals (as issued and gazetted by NSW Government August 2019 and amended from time to time). This code of practice is closely based on the equivalent Model Code of Practice that's issued by Safe Work Australia, which in turn relies on the Globally Harmonized System of Classification and Labelling of Chemicals (7<sup>th</sup> Revised Edition) and the requirements of the Work Health and Safety Legislation, as adopted in most states and territories.

Safety Data Sheets should be reviewed every five years and more frequently if new information on any component of the product emerges. For example, some components may be reclassified based on new information. Please ensure that you have a current copy of this safety data sheet.

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research on the ingredients of the product and at the time of preparing this document it was believed to be accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The supplier of the product will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact the supplier of this safety data sheet.

Acronyms used in this document	
AICIS	Australian Industrial Chemicals Introduction Scheme (previously NICNAS)
AIIC	Australian Inventory of Industrial Chemicals (administer by the AICIS)
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code (issued by the IMO)
IMO	International Maritime Organization
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (currently the 7 <sup>th</sup> Revised Edition is adopted in Australia)
UN Number	United Nations Number (a 4-digit number describing a specific substance or group of substances having a defined dangerous goods class, with defined subsidiary class(es) in some cases)