



**SAFETY DATA SHEET**  
**MAGNESIUM ALUMINIUM SILICATE**  
**REVISION 4, DATE 12 MAY 20**

## 1. IDENTIFICATION

<b>Product Name</b>	<b>Magnesium Aluminium Silicate</b>
<b>Other Names</b>	Bentonite [CAS#1302-78-9]; VEEGUM Ultra
<b>Uses</b>	Personal care products.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	Unspecified
<b>Chemical Name</b>	Smectite Clay
<b>Product Description</b>	Crystalline silica (quartz, as an impurity) contained in this product is encapsulated within the clay particle. Exposure to free respirable quartz is not expected under normal conditions of use and processing of this product. Respirable quartz may be released by grinding, machining or abrading of this product.

### Contact Details of the Supplier of this Safety Data Sheet

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

### Emergency Contact Details

*For emergencies only; DO NOT contact these companies for general product advice.*

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

## 2. HAZARD IDENTIFICATION



Poisons Schedule (Aust)

Not Scheduled

## Globally Harmonised System

Hazard Classification

NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Signal Word

None

## National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

Dangerous Goods Classification

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Smectite clay	Unspecified	12199-37-0	<94 %
Proprietary ingredient (NJTSR No. 800983-5041P)	Unspecified	Proprietary	3 %
Titanium dioxide	TiO <sub>2</sub>	13463-67-7	3 %
Quartz (non respirable)	SiO <sub>2</sub>	14808-60-7	0.5 %

## 4. FIRST AID MEASURES

## Description of necessary measures according to routes of exposure

Swallowed

IF SWALLOWED: Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical advice/attention if significant quantities have been ingested or if you feel unwell.

Eye

IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.

Skin

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.

Inhaled

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention.

Advice to Doctor

Treat symptomatically. No specific treatment. No action shall be taken involving any personal risk or without suitable training.

Medical Conditions Aggravated by Exposure

Excessive exposure to any dust may aggravate pre-existing respiratory conditions.

## 5. FIRE FIGHTING MEASURES

General Measures

If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.

<b>Flammability Conditions</b>	This product is not combustible. Product does not sustain combustion.
<b>Extinguishing Media</b>	If material is involved in a fire, use an extinguishing agent suitable for the surrounding fire. No restrictions on extinguishing media for this product.
<b>Fire and Explosion Hazard</b>	No specific fire or explosion hazard. Product may become slippery when wet.
<b>Hazardous Products of Combustion</b>	Fire or heat may produce irritating, toxic and/or corrosive fumes, including oxides of Carbon.
<b>Special Fire Fighting Instructions</b>	Contain runoff from fire control or dilution water - Runoff may pollute waterways.
<b>Personal Protective Equipment</b>	Wear self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.
<b>Flash Point</b>	No Data Available
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	No Data Available

## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	No action shall be taken involving any personal risk or without suitable training. Ensure adequate ventilation. Do not touch or walk through spilled material - Product may become slippery when wet. Minimise dust generation. Avoid breathing dust and contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor (see SECTION 13).
<b>Containment</b>	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Prevent dust cloud.
<b>Decontamination</b>	No information available.
<b>Environmental Precautionary Measures</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
<b>Personal Precautionary Measures</b>	Use personal protective equipment as required (see SECTION 8).

## 7. HANDLING AND STORAGE

<b>Handling</b>	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Minimise dust generation. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8).
<b>Storage</b>	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store in accordance with local regulations. Use appropriate containment to avoid environmental contamination.
<b>Container</b>	Store in original container. Do not store in unlabelled containers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m <sup>3</sup> (measured as inhalable dust).
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	- New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m <sup>3</sup> ; TWA = 3 mg/m <sup>3</sup> (respirable dust).
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available.
<b>Engineering Measures</b>	<p>Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below established levels below recommended exposure limits. If user operations generate dust, use ventilation to keep exposure to airborne contaminants below the exposure limit.</p> <p>Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.</p>
<b>Personal Protection Equipment</b>	<p>- Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training and other important aspects of use. Recommended: Disposable particulate mask (refer to AS/NZS 1715 &amp; 1716).</p> <p>- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses with sideshields or splash goggles.</p> <p>- Hand protection: Handle with gloves. Protective gloves should be worn under normal conditions of use.</p> <p>- Skin/body protection: Wear appropriate personal protective clothing to prevent avoid contact. Personal protective equipment for the body, appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.</p>
<b>Special Hazards Precautions</b>	Under controlled laboratory test conditions the granular particulate form of this product was found to produce a 3 fold reduction in airborne respirable dust (<10 microns) when compared to flake particulate forms of the same product. Use in an industrial setting is likely to yield similar aerosol dust suppression. As per sound industrial hygiene practice, however, dust levels should be determined by direct dust monitoring at the work site to address variations in material handling and dust control practices.
<b>Work Hygienic Practices</b>	<p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Remove contaminated clothing and protective equipment before entering eating areas. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.</p>

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Granules
<b>Odour</b>	Odourless
<b>Colour</b>	Off white to tan
<b>pH</b>	4.2 - 5.2 5% (w/w)
<b>Vapour Pressure</b>	No Data Available
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	No Data Available
<b>Melting Point</b>	No Data Available
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	Insoluble in water
<b>Specific Gravity</b>	2.6
<b>Flash Point</b>	No Data Available
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	No Data Available
<b>Specific Heat</b>	No Data Available

<b>Molecular Weight</b>	No Data Available
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	No information available.
<b>Potential for Dust Explosion</b>	No information available.
<b>Fast or Intensely Burning Characteristics</b>	No information available.
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No information available.
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No information available.
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	This product is not combustible. Product does not sustain combustion.
<b>Reactions That Release Gases or Vapours</b>	Fire or heat may produce irritating, toxic and/or corrosive fumes, including oxides of Carbon.
<b>Release of Invisible Flammable Vapours and Gases</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Chemical Stability</b>	The product is stable.
<b>Conditions to Avoid</b>	Minimise dust generation.
<b>Materials to Avoid</b>	No information available.
<b>Hazardous Decomposition Products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Hazardous Polymerisation</b>	No information available.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	<p>Information on possible routes of exposure:</p> <ul style="list-style-type: none"> <li>- Ingestion: No known significant effects or critical hazards. Unlikely to be toxic by ingestion.</li> <li>- Eye contact: Not a primary eye irritant. May cause mechanical irritation.</li> <li>- Skin contact: No known significant effects or critical hazards. COMPONENT: Titanium dioxide (CAS No. 13463-67-7): Skin - Mild irritant (Rabbit, Human).</li> <li>- Inhalation: No known significant effects or critical hazards. Prolonged inhalation may cause lung injury.</li> </ul> <p>Chronic effects: Crystalline silica (quartz, as an impurity) contained in this product is encapsulated within the clay particle. Exposure to free respirable quartz is not expected under normal conditions of use and processing of this product. Respirable quartz may be released by grinding, machining or abrading of this product. Overexposure to respirable crystalline silica dust can cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica (quartz) is listed by IARC as a Group 1 carcinogen (lung) based on sufficient evidence in occupationally exposed humans and</p>
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sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. Some studies have not demonstrated a cancer association and controversy exists concerning the IARC and NTP classification.  
COMPONENT: Titanium dioxide (CAS No. 13463-67-7): is classified by the IARC Monographs as "Possibly carcinogenic to humans" (Group 2B).

Acute	
Ingestion	Acute toxicity (Oral): COMPONENT: Titanium dioxide (CAS No. 13463-67-7): - LD50, Rat: >5,000 mg/kg
OtherCategory	Acute toxicity (Dermal): COMPONENT: Titanium dioxide (CAS No. 13463-67-7): - LD50, Rabbit: >10,000 mg/kg
Inhalation	Acute toxicity (Inhalation): COMPONENT: Titanium dioxide (CAS No. 13463-67-7): - LC50, Rat: >6.82 mg/l (4 h)
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: COMPONENT: Titanium dioxide (CAS No. 13463-67-7): - LC50, Fish: >100 mg/l (96 h). - LC50, Crustacea (Daphnia): >1,000 mg/l (48 h). - EC50, Algae: 61 mg/l (72 h).
Persistence/Degradability	No information available.
Mobility	No information available.
Environmental Fate	No known significant effects or critical hazards. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Special Precautions for Land Fill	Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues.

14. TRANSPORT INFORMATION

Land Transport (Australia)	
ADG Code	
Proper Shipping Name	Magnesium Aluminium Silicate

Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	Magnesium Aluminium Silicate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	Magnesium Aluminium Silicate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (United States of America)

US DOT

Proper Shipping Name	Magnesium Aluminium Silicate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name	Magnesium Aluminium Silicate
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<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>EMS</b>	No Data Available
<b>Marine Pollutant</b>	No
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for SEA transport.

### Air Transport

IATA DGR

<b>Proper Shipping Name</b>	Magnesium Aluminium Silicate
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for AIR transport.

### National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

<b>Dangerous Goods Classification</b>	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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## 15. REGULATORY INFORMATION

<b>General Information</b>	No Data Available
<b>Poisons Schedule (Aust)</b>	Not Scheduled

### Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

<b>Approval Code</b>	Not Hazardous
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### National/Regional Inventories

<b>Australia (AIC)</b>	Listed
<b>Canada (DSL)</b>	Listed
<b>Canada (NDSL)</b>	Not Determined
<b>China (IECSC)</b>	Listed
<b>Europe (EINECS)</b>	Listed

Europe (REACH)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
Malaysia (EHS Register)	Listed
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Listed
USA (TSCA)	Listed

## 16. OTHER INFORMATION

Related Product Codes	MAALSI0500, MAALSI1000, MAALSI1001, MAALSI1002, MAALSI1003, MAALSI2000, MAALSI3000, MAALSI3001, MAALSI4000, MAALSI5000, MAALSI6000
Revision	4
Revision Date	12 May 2020
Reason for Issue	Update SDS
Key/Legend	<p>&lt; Less Than &gt; Greater Than</p> <p><b>AICS</b> Australian Inventory of Chemical Substances  <b>atm</b> Atmosphere  <b>CAS</b> Chemical Abstracts Service (Registry Number)  <b>cm<sup>2</sup></b> Square Centimetres  <b>CO<sub>2</sub></b> Carbon Dioxide  <b>COD</b> Chemical Oxygen Demand  <b>deg C (°C)</b> Degrees Celcius  <b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand  <b>deg F (°F)</b> Degrees Farenheit  <b>g</b> Grams  <b>g/cm<sup>3</sup></b> Grams per Cubic Centimetre  <b>g/l</b> Grams per Litre  <b>HSNO</b> Hazardous Substance and New Organism  <b>IDLH</b> Immediately Dangerous to Life and Health  <b>immiscible</b> Liquids are insoluable in each other.  <b>inHg</b> Inch of Mercury  <b>inH<sub>2</sub>O</b> Inch of Water  <b>K</b> Kelvin  <b>kg</b> Kilogram  <b>kg/m<sup>3</sup></b> Kilograms per Cubic Metre  <b>lb</b> Pound  <b>LC50</b> LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.  <b>LD50</b> LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.  <b>ltr or L</b> Litre  <b>m<sup>3</sup></b> Cubic Metre  <b>mbar</b> Millibar  <b>mg</b> Milligram</p>

**mg/24H** Milligrams per 24 Hours

**mg/kg** Milligrams per Kilogram

**mg/m<sup>3</sup>** Milligrams per Cubic Metre

**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.

**mm** Millimetre

**mmH<sub>2</sub>O** Millimetres of Water

**mPa.s** Millipascals per Second

**N/A** Not Applicable

**NIOSH** National Institute for Occupational Safety and Health

**NOHSC** National Occupational Health and Safety Commission

**OECD** Organisation for Economic Co-operation and Development

**Oz** Ounce

**PEL** Permissible Exposure Limit

**Pa** Pascal

**ppb** Parts per Billion

**ppm** Parts per Million

**ppm/2h** Parts per Million per 2 Hours

**ppm/6h** Parts per Million per 6 Hours

**psi** Pounds per Square Inch

**R** Rankine

**RCP** Reciprocal Calculation Procedure

**STEL** Short Term Exposure Limit

**TLV** Threshold Limit Value

**tne** Tonne

**TWA** Time Weighted Average

**ug/24H** Micrograms per 24 Hours

**UN** United Nations

**wt** Weight