

# SAFETY DATA SHEET



Revision date: 14-Jan-2022

Revision Number 5

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### Product identifier

**Product Name** VOLCLAY PREMIUM GEL

**Product Code(s)** 000000017840

### Other means of identification

**CAS No.** 1302-78-9

**Synonyms** Smectite clay; Volclay 200; Sodium bentonite (API Grade).

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

**Recommended use** Waste water treatment.

**Uses advised against** No information available.

### Details of the supplier of the safety data sheet

#### Supplier

Ixom Operations Pty Ltd (Incorporated in Australia)  
NZBN: 9429041465226 Address: 166 Totara Street  
Mt Maunganui South  
New Zealand

Telephone Number: +64 9 368 2700

Facimile: +64 9 368 2710

### For further information, please contact

**Contact Point** Product Safety Department

### Emergency telephone number

**Emergency Telephone** 0 800 734 607 (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.

## 2. HAZARDS IDENTIFICATION

Not classified as a Dangerous Good under NZS 5433 Transport of Dangerous Goods on Land; NON-DANGEROUS GOODS.

Classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

### GHS Classification

#### **SIGNAL WORD**

Danger

Water Treatment Chemicals (Carcinogenic) Group Standard 2020

Approval Code: HSR002687

**Carcinogenicity**

Category 1A

Specific target organ toxicity (repeated exposure)

Category 1

**Label elements****Hazard statements**

H350 - May cause cancer if inhaled

H372 - Causes damage to organs through prolonged or repeated exposure

**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 face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Use personal protective equipment as required

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention

Get medical advice/attention if you feel unwell

**Precautionary Statements - Storage**

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****3. COMPOSITION/INFORMATION ON INGREDIENTS****Chemical nature**

Bentonite constituents are Smectite group minerals, Calcium carbonate, &lt;=8% Quartz, &lt;=2% Cristobalite.

| Chemical name | CAS No.   | Weight-% |
|---------------|-----------|----------|
| Bentonite     | 1302-78-9 | 100      |

**4. FIRST AID MEASURES****Description of first aid measures****General advice**

For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

**Emergency telephone number**

Poisons Information Center, New Zealand: 0800 764 766

**Inhalation**

Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.

**Eye contact**

In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**Skin contact**

Wash skin with soap and water. Get medical attention if symptoms occur.

**Ingestion** Rinse mouth thoroughly with water. Drink 1 or 2 glasses of water. Get medical attention if symptoms occur.

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

**Symptoms** No information available.

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

**Note to physicians** Treat symptomatically.

## **5. FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media**

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

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** Non-combustible.

**Special protective actions for fire-fighters**

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

## **6. ACCIDENTAL RELEASE MEASURES**

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

**Personal precautions** Avoid contact with skin and eyes. Do not breathe dust. Do not touch or walk through spilled material. Ensure adequate ventilation. Evacuate personnel to safe areas. Use personal protective equipment as required. Wash thoroughly after handling.

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

**Environmental precautions** 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.

**Methods for cleaning up** Use appropriate personal protective equipment (PPE). Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. After cleaning, flush away traces with water.

**Precautions to prevent secondary hazards**

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use.

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

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Limits** No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority. However, Workplace Exposure Standard(s) for constituent(s):

Calcium carbonate (Marble): WES-TWA 10 mg/m<sup>3</sup>

Silica-Crystalline a-Quartz: WES-TWA = 0.05 mg/m<sup>3</sup> (respirable dust), confirmed carcinogen

Silica-Crystalline Cristobalite: WES-TWA 0.05 mg/m<sup>3</sup> Respirable dust, confirmed carcinogen

As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

Carcinogen Category 1 - established human carcinogen. There is sufficient evidence to establish a causal association between human exposure and the development of cancer.

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** 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, SAFETY GLASSES, GLOVES, DUST MASK.



|  |   |
|--|---|
| <b>Eye/face protection</b>             | Glasses.  |
| <b>Hand protection</b>                 | Impervious gloves.  |
| <b>Skin and body protection</b>        | Boots. Overalls.  |
| <b>Respiratory protection</b>          | If determined by a risk assessment an inhalation risk exists, wear a dust mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716. |
| <b>Environmental exposure controls</b> | No information available.   |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                       |                              |
|-----------------------|------------------------------|
| <b>Physical state</b> | Solid                        |
| <b>Appearance</b>     | Lumps Granulated Fine Powder |
| <b>Color</b>          | Various                      |
| <b>Odor</b>           | Odourless                    |
| <b>Odor threshold</b> | No information available.    |

| <u>Property</u>                               | <u>Values</u>             | <u>Remarks • Method</u> |
|---|---------------------------|-------------------------|
| <b>pH</b>                                     | 8.5-11 (aqueous solution) | None known              |
| <b>Melting point / freezing point</b>         | >450°C                    | None known              |
| <b>Boiling point / boiling range</b>          | No data available         | None known              |
| <b>Flash point</b>                            | Not applicable            | 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>                         | Not applicable            | None known              |
| <b>Vapor density</b>                          | Not applicable            | None known              |
| <b>Relative density</b>                       | 2.6                       | None known              |
| <b>Water solubility</b>                       | 0.0009 g/L                | None known              |
| <b>Solubility(ies)</b>                        | No data available         | None known              |
| <b>Partition coefficient</b>                  | No data available         | None known              |
| <b>Autoignition temperature</b>               | Not applicable            | None known              |
| <b>Decomposition temperature</b>              | >500°C                    | None known              |
| <b>Kinematic viscosity</b>                    | No data available         | None known              |
| <b>Dynamic viscosity</b>                      | No data available         | None known              |

### Other information

## 10. STABILITY AND REACTIVITY

**Reactivity****Reactivity** Non-reactive under normal conditions of use, storage and transport.**Chemical stability****Stability** Stable under normal conditions.**Explosion data****Sensitivity to mechanical impact** None.**Sensitivity to static discharge** None.**Possibility of hazardous reactions****Hazardous polymerization** Hazardous polymerization does not occur.**Possibility of hazardous reactions** None under normal processing.**Conditions to avoid****Conditions to avoid** Dust formation. Moisture.**Incompatible materials****Incompatible materials** None known based on information supplied.**Hazardous decomposition products****Hazardous decomposition products** Carbon oxides.**11. TOXICOLOGICAL INFORMATION****Acute toxicity****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.**Eye contact** Dust contact with the eyes can lead to mechanical irritation.**Skin contact** May cause irritation.**Ingestion** May cause gastrointestinal discomfort if consumed in large amounts.**Symptoms** No information available.**Acute toxicity****Numerical measures of toxicity**

| Chemical name | Oral LD50            | Dermal LD50 | Inhalation LC50 |
|---------------|----------------------|-------------|-----------------|
| Bentonite     | > 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**

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | Not classified.   |
| <b>Serious eye damage/eye irritation</b> | Not classified.   |
| <b>Respiratory or skin sensitization</b> | Not classified.   |
| <b>Germ cell mutagenicity</b>            | Not classified.   |
| <b>Carcinogenicity</b>                   | Refer to 'Chronic effects' section below.   |
| <b>Reproductive toxicity</b>             | Not classified.   |
| <b>STOT - single exposure</b>            | Not classified.   |
| <b>STOT - repeated exposure</b>          | Causes damage to organs through prolonged or repeated exposure.   |
| <b>Aspiration hazard</b>                 | No information available.   |
| <b>Chronic effects:</b>                  | <p>The toxicity of crystalline silica is directly proportional to the ability of any particle to reach the lower respiratory tract. Quartz particles with an aerodynamic diameter below 10µm are likely to be most harmful to humans, as they reach the lower respiratory tract and are less readily removed by the lungs.</p> <p>Increases in lung cancer have been attributed to the inhalation of crystalline silica in a number of industries, including; ore mining, quarrying and granite works, ceramics, pottery, refractory brick and diatomaceous earth industries and in foundry workers.</p> <p>The International Agency for Research on Cancer has classified crystalline silica as a Type 1 Carcinogen - Carcinogenic to Humans, based on sufficient evidence in humans and animals.</p> <p>Increasing in vitro and in vivo evidence suggests that lung carcinomas in rats are a result of marked and persistent inflammation and epithelial proliferation.</p> <p>Crystalline silica also causes a range of non-neoplastic pulmonary effects, including; inflammation, silicosis, lymph node fibrosis, airways disease, emphysema and increased permeability of the airspace epithelium. In case of prolonged inhalation and/or exceeding exposure limits, the breathable quartz powder may cause silicosis.</p> |

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

|                                |                                    |
|--------------------------------|------------------------------------|
| <b>Ecotoxicity</b>             | Keep out of waterways.             |
| <b>Terrestrial ecotoxicity</b> | There is no data for this product. |

| Chemical name | Algae/aquatic plants | Fish   | Crustacea |
|---------------|----------------------|--|-----------|
| Bentonite     | -                    | LC50: =19000mg/L (96h, Oncorhynchus mykiss) LC50: 8.0 - 19.0g/L (96h, Salmo gairdneri) | -         |

**Persistence and degradability**

**Persistence and degradability** Biodegradation is not an applicable endpoint since the product is an inorganic substance.

**Bioaccumulative potential**

**Bioaccumulation** Material does not bioaccumulate.

**Mobility**

**Mobility in soil** No information available.

**Other adverse effects**

**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

**Waste from residues/unused products** Dispose of product in packaging/container in a way that is consistent with the Hazardous Substances (Disposal) Notice 2017 and the Act, and Hazardous Substances (Amendments and Revocations) Notice 2020. Treat the chemical using a method that changes the characteristics or composition of the chemical so that the chemical is no longer a hazardous chemical; or export the chemical from New Zealand as waste.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. TRANSPORT INFORMATION**

**ROAD AND RAIL TRANSPORT** Not classified as a Dangerous Good under NZS 5433 Transport of Dangerous Goods on Land; 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.

**15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****New Zealand**

**National regulations** See section 8 for national exposure control parameters

**International Inventories**

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



|                      |   |
|----------------------|---|
| <b>TSCA</b>          | Contact supplier for inventory compliance status.   |
| <b>DSL/NDSL</b>      | Contact supplier for inventory compliance status.   |
| <b>EINECS/ELINCS</b> | Contact supplier for inventory compliance status.   |
| <b>ENCS</b>          | Contact supplier for inventory compliance status.   |
| <b>IECSC</b>         | Contact supplier for inventory compliance status.   |
| <b>KECL</b>          | Contact supplier for inventory compliance status.   |
| <b>PICCS</b>         | Contact supplier for inventory compliance status.   |
| <b>AIIC</b>          | All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals. |

**Legend:**

|                      |  |
|----------------------|--|
| <b>NZIoC</b>         | - New Zealand Inventory of Chemicals   |
| <b>TSCA</b>          | - United States Toxic Substances Control Act Section 8(b) Inventory                                |
| <b>DSL/NDSL</b>      | - Canadian Domestic Substances List/Non-Domestic Substances List                                   |
| <b>EINECS/ELINCS</b> | - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances |
| <b>ENCS</b>          | - Japan Existing and New Chemical Substances   |
| <b>IECSC</b>         | - China Inventory of Existing Chemical Substances  |
| <b>KECL</b>          | - Korean Existing and Evaluated Chemical Substances  |
| <b>PICCS</b>         | - Philippines Inventory of Chemicals and Chemical Substances                                       |
| <b>AIIC</b>          | - Australian Inventory of Industrial Chemicals   |

**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

**16. OTHER INFORMATION**

Supplier Safety Data Sheet 06/ 2018

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

**Issuing Date:** 14-Jan-2022

**Reason(s) For Issue:** 5 Yearly Revised Primary SDS  
Addition/Change of synonymous name(s)

**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 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)  
EPA (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)  
Japan GHS Classification  
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)  
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  
RTECS (Registry of Toxic Effects of Chemical Substances)  
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 Ixom 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.**

**End of Safety Data Sheet**