

# SAFETY DATA SHEET

# Section 1 - Identification

**Product identification:** EnviroPozz

Synonyms: China clay, Aluminum silicate

Product application: Supplementary cementing material (pozzolan)

#### **Production plant**:

Whitemud Resources Inc. **Gollier Creek Plant** SW18-T5-R2-W3 Box 58, Wood Mountain, SK, Canada, SOH 4L0 1.306.266.4252

#### Distribution:

Whitemud Resources Inc 6713 Fairmount Drive SE Calgary, AB, Canada, T2H 0X6

*Emergency contacts*: Curtis Karst - 1.306.263.3142 Thomas O'Neill – 1.403.801.4125

# Section 2 – Hazard Identification Section 1 - Identification



#### STOT RE 1 H372 - Causes damage to organs after prolonged or repeated exposure

Potential health effects:

Eyes: Dust may cause physical irritation.

Skin: Dust may cause physical irritation.

Ingestion: Ingestion of large amounts may cause gastrointestinal irritation. Low hazard during normal industrial handling.

*Inhalation:* May cause respiratory tract irritation. Low hazard for usual industrial handling. When inhaled as a dust or a fume may cause benign pneumoconiosis.

Chronic: Chronic inhalation can cause pneumoconiosis.

Hazard word: Danger

Hazard determining component: Silica (SiO2)

Hazard statement: Causes damage to organs after prolonged or repeated exposure

#### WHMIS classification:

Toxic Material Causing Other Toxic Effects Canadian disclosure at 0.1% according to classification criteria

#### Additional information:

EnviroPozz may contain up to 20% quartz which is part of the natural raw material as mined. Quartz has been classified by IARC (International Agency for Research on

Cancer) as carcinogenic to humans by inhalation (Group I). Furthermore, quartz can cause Silicosis and other lung diseases on prolonged inhalation exposure. These conditions are preventable if proper handling procedures, including the use of engineering controls, PPE, and respirators are observed. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical advice/attention if feeling unwell. The user is responsible for controlling the working environment according to local regulations.

Classification system: NFPA				
Health: 1	Flammability: 0	Instability: 0		



Section 3 – Composition/Information on Ingredients			
CAS#	Chemical Name	Percent	
92704-41-1	Kaolin, calcined	Balance	
14808-60-7	Total quartz (SiO <sub>2</sub> )	18-20%	
	Quartz (SiO <sub>2</sub> ) < 4 $um$	< 3%	
	Quartz (SiO <sub>2</sub> ) < 2.5 um	< 1.5%	

# Section 4 – First Aid Measures

*Eyes:* Flush eyes for a minimum of 15 minutes with water, lifting upper and lower eyelids. If irritation persists seek medical attention

*Skin:* Wash thoroughly with soap and water while removing contaminated clothing. Seek medical attention if irritation persists.

*Ingestion:* Material will pass through body in normal manner. If large quantities are ingested, aid process by drinking plenty of fluids.

Inhalation: Move to fresh air. If breathing is difficult administer oxygen

## **Section 5 – Fire Fighting Measures**

*Suitable extinguishing agents:* Use CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire-fighting measures that suit the environment.

*Special hazards arising from the substance or mixture:* Product is non-flammable, non-explosive and does not support combustion. Product in paper bags will not react with common fire extinguishing agents.

*Special protective equipment:* As in any fire, wear suitable a self contained breathing apparatus and full PPE to protect skin and eyes.

### Section 6 – Accidental Release Measures

*Personal precautions, protective equipment and emergency procedures:* Avoid formation of dust *Environmental precautions:* No special measures required.

*Methods and material for containment and cleaning up:* Avoid formation of dust. Vacuum or sweep up spillage in a suitable container for disposal and avoid dust dispersal.

#### Reference to other sections:

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

## Section 7 – Handling and Storage

*Precautions for safe handling:* Prevent dusty conditions that could cause employee exposure to high concentrations.

*Conditions for safe storage:* Keep product dry. Store in tightly closed containers or sealed bags. Product in paper bags should not be stored near sources of heat.

Section 8 – Exposure Controls/Personal Protection Components with limit values that require monitoring at the workplace: 1332-58-7 natural aluminosilicate (Kaolin)						
					PEL:	15 mg/m <sup>3</sup> total dust 5mg/m <sup>3</sup> respirable fraction OSHA TWA
					REL:	10 mg/m <sup>3</sup> total dust 5 mg/m <sup>3</sup> respirable fraction NIOSH TWA
TLV:	2 mg/m <sup>3</sup> respirable fraction ACGIH TWA					
14808-60-7 quartz (SiO2)						
PEL:	10 mg/m <sup>3</sup> ÷(%quartz+2) OSHA TWA					
REL:	0.05 g/m <sup>3</sup> respirable dust NIOSH TWA					
TLV:	0.025 mg/m <sup>3</sup> ACGIH TWA					

*Engineering controls:* Use adequate ventilation to keep airborne concentrations as low as possible *Personal protective equipment:* 

*Eyes:* Wear approved safety glasses or chemical goggles. Facilities for eye flushing should be available.



*Skin:* Wear non porous gloves when handling.



*Clothing:* Wear appropriate protective clothing, such as long sleeve cotton coveralls to prevent exposure of skin



**Respirators:** NIOSH-approved respiratory protection equipment should be used if dust is present. Avoid breathing dust produced during the use of this and handling of this material. If the airborne crystalline silica concentration of the workplace is not known, Air Quality Monitoring should be conducted in order to determine the appropriate level of respiratory protection. If necessary, NIOSH air-purifying respirator or air supply should be used. Ensure the appropriate respirators are worn during, and following the task, including clean up or whenever airborne dust is present, to insure ambient dust levels are below occupational exposure limits. Provisions should be made for a respiratory protection-training program. Also see ANSI standard Z88.2 "American National Standard for Respiratory Protection", or the CSA Standard Z94.4-02 "Selection, Use, And Care of Respirators."



Section 9 – Physical and Chemical Properties			
Physical State: Solid (Powder)			
Appearance: Fine, Off-white			
Odour: Odourless			
pH: 7.2 (50% solids suspension)			
Vapour Pressure: Negligible			
Vapour Density: N/A			
Evaporation Rate: N/A			
Flammability (solid, gaseous): Product is not flammable			
Explosion limits upper/lower: N/A			
Viscosity: N/A			
Boiling point/boiling range: N/A			
Flash point: N/A			
Auto ignition: Product is not self igniting			
Freezing/Melting point: N/A			
Decomposition Temperature: 400-550°C (750-1100°F) – structural decomposition			
Solubility: Insoluble in water			
Partition coefficient: N/A			
<i>Specific gravity:</i> 2.56 g/cm <sup>3</sup>			
<b>Bulk density:</b> 50 g/ft <sup>3</sup> (800 Kg/m <sup>3</sup> )			
<i>Molecular formula:</i> Al2O <sub>3</sub> 2SiO <sup>2</sup>			
Molecular weight: 222.1			

# Section 10 – Stability and Reactivity

*Chemical stability:* Stable under ambient temperatures and pressures

**Reactivity:** Product is intended for use as a pozzolan as partial replacement of Portland cement in concrete or other cement based products. Pozzolans react with Ca (OH) from the hydration of hydraulic cement to produce Calcium Silicate Hydrates (CSH).CSH are highly stable minerals under normal ambient conditions. Product may react with lime or quicklime (Ca (OH)) in the presence of water. Otherwise, product is stable and chemically inert with no hazardous decomposition products.

Possibility of hazardous reactions: No dangerous reactions known

*Conditions to avoid:* No further relevant information available

Incompatible materials: No further relevant information available

Hazardous decomposition products: No dangerous decomposition products known

## Section 11 – Toxicological Information

**RTECS#:** 1332-58-7: GF 1670500 – Kaolin **RTECS#:** 1408-60-7: VV 7330000 – Quartz

*LD50/LC50:* N/A

Epidemiology: No Documented effects

Teratogenicity: No Documented effects

Reproductive effects: No Documented effects

*Neurotoxicity:* No Documented effects

*Mutagenicity:* No Documented effects

Irritancy of product: No Documented effects

Skin/respiratory sensitization: No Documented effects

Synergistic products/effects: Intended use is for partial replacement of Portland cement in concrete or Portland cement based products. Effects are not synergistic. Follow recommendations for use of Portland cement

**Other studies:** An epidemiological study performed on workers in the kaolin processing industry showed that the incidence of lung disease was not significantly higher than the general population. However, the study also showed that prolonged inhalation of high concentrations of dust could cause detectable deposits in the lungs. This product contains up to 20% quartz, which may cause cancer, silicosis or other fibrotic lung diseases with prolonged exposure. The most recent IARC classification of crystalline silica (quartz) is that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1). These conditions are preventable through the use of engineering controls and the use of appropriate respirators. Whitemud Resources Inc. knows of no medical conditions abnormally aggravated by exposure to this product. The primary route of entry is inhalation. Kaolin has GRAS status (generally recognized as safe for a specified use) related to the manufacture of food packaging materials.

## Section 12 – Ecological Information

Toxicity: N/A

*Aquatic Toxicity:* 1332-58-7: GF 1670500 – Kaolin. No adverse ecological effects are expected. May affect turbidity of water if discharged in large quantities to lakes or streams.

Persistence of degradability: No further relevant information is available

Bioaccumlative potential: No further relevant information is available

Mobility in soil: No further relevant information is available

PBT & vPvB: N/A

Other adverse affects: No further relevant information is available

## Section 13 – Disposal Considerations

Metakaolin is a non-hazardous waste. Disposal must follow local landfill laws and regulations as well as provincial and federal (Canada) and state and federal (US) requirements. Do not dispose with household garbage. Do not let product enter sewage system.

Section 14 – Transport Information				
Other adverse affects: No further relevant information is available				
	Canada - TDG	USA - DOT		
Shipping Name	EnviroPozz	EnviroPozz		
Hazard	Non Regulated	Non Regulated		
UN Number	Non Regulated	Non Regulated		
Packing Group	Non Regulated	Non Regulated		

## Section 15 – Regulatory Information

US federal TSCA - CAS# 1332-58-7 is listed on the TSCA Inventory.

Health & safety list: None of the components are on the health and safety list.

*Chemical test rules:* None of the components are under a chemical test rule.

Section 12b: None of the components are listed under TSCA Section 12b.

Significant new use rule: None of the components in this product have a SNUR under TSCA.

*CERCLA Hazardous substances and corresponding RQs:* None of the components in this product have an RQ.

SARA Section 302 Extremely Hazardous Substances: None of the components have a TPQ

Section 313: None of the components are reportable under section 313

*Clean air act:* This material does not contain any hazardous air pollutants, any Class 1 or 2 Ozone depletors.

*Clean water act:* None of the components in this product are listed as Hazardous Substances, Priority Pollutants or Toxic Pollutants under the CWA.

*State:* Kaolin can be found on the following state right to know lists: California (listed as Silica, amorphous), New Jersey (listed as Silica, amorphous), Pennsylvania, Minnesota, and Massachusetts.

California Prop 65 - No Significant Risk Level: None of the components of this product are listed

Canada - CAS# 1332-58-7 is listed on Canada's DSL List

**WHIMIS classifications:** D2A, due to crystalline silica content. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Ingredient disclosure list: CAS# 1332-58-7 is not listed.

# Section 16 – Other Information

Date of last revision: January 21st, 2022 - Curtis Karst

This Material Safety Data Sheet, or the information contained herein, should be provided to any individuals who will handle, store, and transport or otherwise be exposed to the product. Information presented in the Material Safety Data Sheet presumes that the user will employ proper handling techniques and use the product as intended, without alteration. Whitemud Resources Inc. believes the information in the MSDS is reliable and current as of the date of publication, but makes no such warranty.

