

Effective Date: 01/01/15

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Raw Pozzolan  
**PRODUCT SYNONYM:** Pozzolan (diatomaceous earth plus volcanic ash)  
**PRODUCT USE:** Soil amendment; Cement additive; water retention agent  
**MANUFACTURED BY:** Purebase Inc.  
 1670 Sierra Ave. Ste. 402  
 Yuba City, CA 95993  
 1 (530) 676-7873

## SECTION 2. HAZARDS IDENTIFICATION

**DESCRIPTION:** Usually shipped bulk or in one ton Super Sacks, raw Pozzolan is a cream to tan colored diatomaceous earth in various sizes, ranging from 2-1/2" to powder. Do not mix, pour or work with this product in enclosed areas. Stay upwind when using outside.

### POTENTIAL HEALTH EFFECTS

**ABBREVIATIONS and DEFINITIONS:** TLV= Threshold Limit Value set by the American Conference of Governmental Industrial Hygienists; MSHA PEL= permissible exposure limit set by the Mine Safety and Health Administration; OSHA PEL= exposure limit established by the Occupational Safety and Health Administration; mg/m<sup>3</sup>=milligrams per cubic meter of air; Respirable fraction=The size fraction smaller than approximately 4 u (microns) in diameter.

**INHALATION EXPOSURE LIMITS:** This product contains more than 2% by weight of crystalline silica (quartz) and Crystobillite. Prolonged exposure to respirable crystalline silica has the potential to cause silicosis, a scarring of the lungs, which may be disabling. While individual susceptibility to a given exposure to respirable silica dust may vary, the risk of contracting silicosis and the severity of the disease is clearly related to the concentration and duration (usually years) of exposure. Exposure associated with proper uses of this product(s) should be well below the permissible exposure limits; however, employers are responsible for performing workplace testing to determine actual exposure levels. The following are some exposure limits that apply to crystalline silica and other components of this product.

<u>Component</u>	<u>ACGIH TLV</u>	<u>PEL (MSHA)</u>	<u>PEL (OSHA)</u>
Total dust	10 mg/m <sup>3</sup> Total dust	<u>(30 mg/m<sup>3</sup>)</u> (%SiO <sub>2</sub> + 2).	<u>30 mg/m<sup>3</sup></u> %SiO <sub>2</sub> + 2)
Respirable dust	3 mg/m <sup>3</sup> Total Dust	<u>10 mg/m<sup>3</sup></u> (%SiO <sub>2</sub> + 2)	<u>10 mg/m<sup>3</sup></u> (%SiO <sub>2</sub> + 2)
Respirable crystalline silica (quartz)	0.01 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup> (proposed)	0.1 mg/m <sup>3</sup> (prop)

For Crystobillite, use one half the values listed above to calculate exposures.

**SKIN CONTACT:** Prolonged handling may cause skin irritation.

**EYE CONTACT:** Dust can cause eye irritation.

**INGESTION:** Not applicable under normal conditions of use

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

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**INGREDIENTS:** Pozzolan is composed of the remains of diatoms from ancient seabeds imbedded in volcanic ash. Its approximate chemical composition is:

	Approximate %	CAS NO
Silica Dioxide	~70	7631-86-9
- Crystalline Silica (quartz)	~4	14808-60-7
- Amorphous Silica	~66	na
Aluminum Silicate	~10	1Z174-11-7
Crystobillite	~2	na
Heavy Metals	<1	1309-37-1
Respirable fraction	~5	na

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**SECTION 4. FIRST AID MEASURES**

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**INHALATION EXPOSURE:** Remove to fresh air. If bronchial irritation occurs, keep employee away from dust until irritation abates.

**SKIN IRRITATION:** Wash affected areas with soap and water. Use lotion before and after exposure.

**EYE IRRITATION:** Remove contact lenses. Flush eyes, including under eyelids, with large amounts of water. If irritation persists, get medical attention.

**INGESTION:** Not likely.  
All health effects mentioned are chronic.

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**SECTION 5. FIRE FIGHTING MEASURES**

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**FLASH POINT:** Not applicable.  
**HAZARDOUS COMBUSTION PRODUCTS:** None  
**FLAMMABLE LIMITS:** Not combustible.  
**AUTOIGNITION TEMPERATURE:** Not applicable.  
**FIRE EXTINGUISHING MEDIA:** Not applicable.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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Use dustless vacuum. Do not sweep. If needed, use water spray to wet down and minimize dust generation. Wear approved respirator, if necessary.

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**SECTION 7. HANDLING AND STORAGE**

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Do not work in closed space with visible dust present without a respirator. Use dust control techniques and practice good housekeeping. Do not use this product for sandblasting. This product is incompatible with powerful oxidizing agents such as chlorine, fluorine and hydrofluoric acid.

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**ENGINEERING CONTROLS:** Provide local exhaust or enclosures as necessary to meet OSHA requirements for dust control. Use wet methods, if appropriate, to reduce generation of dust.

**SKIN PROTECTION:** None required.

**RESPIRATORY PROTECTION:** Wear appropriate NIOSH/OSHA approved respirator with dust or particulate cartridges when permissible exposure limit to dust may be exceeded. Half face respirators have an assigned protection factor of 10; Full face respirators have an assigned protection factor of 50; Powered Air Purifying Respirators provide a protection factor of at least 100 and Supplied Air respirators provide a protection factor of at least 1000.

**HAZARD COMMUNICATION:** Workers should be aware of the hazards mentioned herein, how to control dust and be provided proper Personal Protection Equipment (PPE).

**EYE PROTECTION:** Recommend goggles or safety glasses for nuisance dust.

**SYMPTOMS OF EXPOSURE:** There are few symptoms of exposure; possibly coughing and throat irritation from prolonged or excessive exposure.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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**APPEARANCE AND ODOR:** No odor; brown or tan soil.

<b>PHYSICAL STATE:</b>	Solid	<b>BOILING POINT:</b>	Not applicable
<b>PH:</b>	~7.0	<b>MELTING POINT:</b>	~1,800°F
<b>VAPOR PRESSURE:</b>	Not applicable	<b>SOLUBILITY IN WATER:</b>	~0.5%
<b>VAPOR DENSITY:</b>	Not applicable	<b>SPECIFIC GRAVITY:</b>	~ 2.5

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## SECTION 10. STABILITY AND REACTIVITY

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**STABILITY:** Crystalline silica is incompatible with halogens (chlorine, fluorine, etc.) and oxidizing agents. Silica will dissolve in Hydrofluoric Acid and produce a toxic gas.

**CONDITIONS TO AVOID:** Visible dust.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Halogens, hydrofluoric acid and strong oxidizers.

**HAZARDOUS POLYMERIZATION:** Will not occur.

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## SECTION 11. TOXICOLOGICAL INFORMATION

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**CRYSTALLINE SILICA:** Crystalline silica is classified by the International Agency for Research of Cancer (IARC) as a probable human carcinogen (Group 2A) with animal evidence sufficient. Respirable crystalline silica has been classified by the National Toxicology Program (NTP) as a substance which may reasonably be anticipated to be a carcinogen. Acute Silicosis may occur with exposures to very high concentrations of respirable silica over a sort period of time. Symptoms are shortness of breath, cough and weight loss. Acute Silicosis is fatal

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## SECTION 12. ECOLOGICAL INFORMATION

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**Eco Toxicity:** No data available. This material is believed to be non-toxic to aquatic life.

**Persistence:** No data available. This material is believed to be unlikely to persist in the environment.

**Bioaccumulation:** No data available. This material is believed unlikely to bio accumulate.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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This product is not considered hazardous waste under Federal Hazardous Waste Regulations 40 CFR 261. Please be advised, however, state and local requirements for waste disposal may be different from federal regulations. Dispose of as inert solid in landfill or by other procedures in accordance with local, state and federal regulations.

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**SECTION 14. TRANSPORT INFORMATION**

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This product is not a DOT hazardous material.

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**SECTION 15. REGULATORY INFORMATION**

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**OSHA:** Dust generated from mixing, applying or otherwise using this product may be hazardous if inhaled.

**TSCA:** This product is not TSCA regulated.

**SARA 313:** None.

**RCRA:** If discarded in its purchased form, this product would not be a hazardous waste. Under RCRA, however, it is the responsibility of the product user to determine at the time of disposal whether a material containing this product or derived from this product should be classified as a hazardous waste.

**CALIFORNIA PROP 65:** Airborne particles of respirable crystalline silica are known by the State of California to cause cancer. The California Chronic Inhalation Reference Exposure Level (REL) for respirable crystalline silica is 0.03mg/m<sup>3</sup>.

**CANADIAN WHMIS:** This is not a controlled product under WHMIS.

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**SECTION 16. OTHER INFORMATION**

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**HMIS RATING:** Health – 1; Flammability – 0; Reactivity – 0

**MSDS REVISION SUMMARY:** This MSDS is in Globally Harmonized System of Classification and Labeling of Chemicals (GHS) format, with important health and safety information in many sections. Read this information carefully before using or handling the product.

**IMPORTANT:** The information herein is believed to be accurate and has been compiled from reliable sources. Buyer assumes all risk of use, storage and handling of product, in compliance with label instructions and applicable federal, state and local laws and regulations. Purebase Inc. and its subsidiaries make no warranty of any kind, express or implied, concerning the accuracy or completeness of the information herein. The implied warranties of merchantability and fitness for a particular purpose are specifically excluded.