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### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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**PRODUCT NAME:** Calcined Pozzolan

**PRODUCT SYNONYM:** Pozzolan (heated to more than 1400 degrees F)

**PRODUCT USE:** Soil Amendment; water retention agent

**MANUFACTURED BY:** Western Pozzolan Corp  
417-355 Scotts Road  
Doyle, NV 96109  
(530) 827-2549

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### SECTION 2. COMPOSITION INFORMATION ON INGREDIENTS

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**INGREDIENTS:** Pozzolan is composed of the remains of diatoms from ancient seabeds mixed with volcanic ash. The chemical composition of Calcined Pozzolan is:

	<u>Appx %</u>	<u>CAS NO</u>
Silica Dioxide	~ 70	7631-86-9
- Crystalline Silica (quartz)	~ 4	14808-60-7
- Amorphous Silica	~66	7631-86-9
Aluminum Silicate	~10	1Z174-11-7
Crystobillite	~2	14464-46-1
Heavy Metals	<1	1309-37-1
Respirable fraction	~6	N/A

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### SECTION 3. HAZARDS IDENTIFICATION

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**DESCRIPTION:** Usually shipped in bulk or 25 lb bags. Calcined Pozzolan is a gray, tan or red colored diatomaceous earth in a granular form. Do not mix, pour or work with this product in enclosed areas. Stay upwind when using this product outdoors.

#### 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>= weight of particles per cubic meter of air; Respirable fraction=the size fraction that can be inhaled deep into the lungs, or ~4 microns in diameter for this product; ug= microgram, or one thousandth of a milligram.

**-INHALATION EXPOSURE LIMITS:** This product contains at least 2% by weight crystalline silica (quartz) and cristobillite. Prolonged exposure to respirable cristobillite or crystalline silica is known to cause silicosis, a scarring of the lungs which may be disabling. While individual susceptibility to a given exposure to respirable silica dust varies, the risk of silicosis and the severity of the diseases are clearly related to the concentration and duration (usually years) of exposure.

Exposures associated with proper uses of this product(s) should be well below the permissible exposure limits when used as directed; however, employers should perform their own workplace testing to determine actual worker exposure levels. The following are some exposure limits that apply to crystalline silica, total dust and other components of this product.

<u>Component</u>	<u>TLV</u>	<u>MSHA PEL</u>	<u>OSHA PEL</u>
Total dust	10 mg/m <sup>3</sup>	<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>	<u>10 mg<sup>3</sup> /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)

Note: Use one half these listed exposure values to calculate worker exposure to crystobillite.

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

**EYE CONTACT:** Dust can cause eye irritation; quartz dust can cause corneal scratches.

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

**SECTION 4. FIRST AID MEASURES**

**EXPOSURE via INHALATION:** 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 CONTACT:** Remove contact lenses. Flush eyes, including under eyelids, with large amounts of water. If irritation persists, get medical attention.

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

**SECTION 5. FIRE FIGHTING MEASURES**

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

**SECTION 6. ACCIDENTAL RELEASE RESPONSE MEASURES**

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

**SECTION 7. HANDLING AND STORAGE**

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.

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

**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 cartridge when permissible exposure limit may be exceeded.

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

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

**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; 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 toxic gas.

**CONDITIONS TO AVOID:** Visible dust.

**INCOMPATIBILITY (MATERIALS TO AVOID):** This material is incompatible with halogens, acids and other strong oxidizers. Mixture with hydrofluoric acid can result in liberation of toxic gas.

**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 human carcinogen Group 1. 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 short period of time. Symptoms are coughing and shortness of breath. Acute Silicosis is a fatal disease.

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## SECTION 12. 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 13. TRANSPORT INFORMATION**

This product is not a DOT hazardous material.

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**SECTION 14. REGULATORY INFORMATION**

**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 0.03 mg/m<sup>3</sup>.

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

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**SECTION 15. OTHER INFORMATION**

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

**MSDS REVISION SUMMARY:** This MSDS is in ANSI format, with new information in many sections. Read this information carefully before using the product.

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

Additional information can be obtained from [www.u-s-silica.com](http://www.u-s-silica.com).