Safety Data Sheet
Natural Pozzolan
Date Prepared: 03/10/2022

SECTION 1: IDENTIFICATION

1.1 Product Identifier
Product Name: Natural Pozzolan
Synonym: Tuff

1.2 Intended Use of the Product
Supplementary cementitious material

1.3 Name, Address, and Telephone Number of the Responsible Party
Eco Material Technologies Inc., and its subsidiary and affiliate companies
10701 S. River Front Parkway, Suite 300
South Jordan, UT 84095
(801) 984-9400

1.4 Emergency Telephone Number
(502) 525-3561

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the Substance or Mixture (GHS-US)
Skin Irritation 2
Eye Irritation 2A
STOT-RE (Repeated Exposure) 2 (Respiratory)
Carcinogenicity 1A

2.2 Label Elements (GHS-US)
Hazard Pictograms:

Signal Word:
- Warning

Hazard Statements:
- Causes skin irritation (H315)
- Causes serious eye irritation (H319)
- May cause respiratory irritation (H335)
- May cause cancer (H350)
- May cause damage to respiratory system through prolonged or repeated exposure (H373)

Precautionary and Response Statements:
- Obtain, read, and follow all safety instructions before use (P203)
- Do not breathe dust (P260)
- Wash hands and exposed skin thoroughly after handling (P264)
- Wear protective gloves, protective clothing, and eye protection (P280)
- IF ON SKIN: Wash with plenty of water (P302) (P352)
- IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304) (P340)
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing until pain or irritation subsides. (P305) (P351) (P338)
- IF exposed or concerned, get medical advice (P318)
- Get medical help if you feel unwell (P319)
- If skin irritation occurs or eye irritation persists: Get medical help (P332) (P337) (P317)
- Take off contaminated clothing and wash it before reuse (P362) (P364)
- Dispose in accordance with local/regional/national/international regulations (P501)

2.3 Other Hazards
Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

2.4 California Proposition 65:

WARNING: Cancer—www.P65Warnings.ca.gov

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Description of Product

Naturally-occurring substance[(1)].

Ingredient	Product Identifier (CAS No.)	% (w/w)	Hazard Classification (GHS-US)
Silicon dioxide:		65 – 75	
Silica, amorphous	61790-53-2	< 70	• Eye Irritation 2A, H319 • STOT-RE (Repeated Exposure) 3 (Respiratory), H335
Crystalline silica[(1)] (quartz)	14808-60-7	< 10	• Skin Irritation 2, H316 • Eye Irritation 2B, H320 • STOT-RE (Repeated Exposure) 1 (Respiratory), H373
Aluminum oxide	1344-28-1	13 – 15	• Not classified
Potassium oxide	12136-45-7	< 4	• Skin Irritation 2, H315 • Eye Irritation 2A, H319
Sodium oxide	1313-59-3	< 3	• Oxidizing solid, H271 • Skin Corrosion 1, H314
Calcium oxide	1305-78-8	< 2	• Skin Irritation 2, H315 • STOT SE (Single Exposure) 3 (Respiratory), H332 • Eye Damage 1, H318

fn[(1)] Pozzolan (tuff) is a natural earth substance extracted from an open-pit mine; as such, it contains additional silicates and oxides of magnesium, titanium, and iron at concentrations that do not contribute to the hazards of this substance.
fn[(2)] Respirable crystalline silica fraction has not been determined.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. Any person who is experiencing symptoms of injury or illness should be moved to a comfortable area with fresh air, and the label or SDS of this product reviewed.
Inhalation: If symptoms of dust exposure (respiratory irritation) occur, move the person to fresh air. Provide drinking water, if conscious, to flush mouth and irrigate upper respiratory tract. Seek medical attention for discomfort or if coughing or other symptoms do not subside.
Eye Contact: If the exposed person experiences burning eye irritation due to dust exposure, careful flushing with clean water should continue for at least 15 minutes. If contact lenses are present, they should be removed after flushing if easy to do. Continue flushing. Obtain medical attention if irritation persists.
Skin: Flush skin with plenty of water until irritation subsides. If irritation persists, obtain medical assistance. Wash contaminated clothing before re-use.

4.2 Most Important Symptoms and Effects—Both Acute and Delayed

General: The most important symptoms and effects from exposure to this material after contact with dust are eye and skin irritation. Breathing dust can cause respiratory irritation and respiratory system chronic illness if significant exposures occur repeatedly.
Inhalation: The immediate acute response to dust inhalation is respiratory system irritation. Upon repeated dust exposure at levels exceeding regulatory limits, crystalline silica content of the dust may cause delayed or chronic respiratory illnesses, including silicosis and cancer.
Eye Contact: Exposures of the eyes to dust may cause severe irritation, which must be treated immediately with first aid (Section 4) followed by medical attention if irritation persists.
Skin Contact: Skin contact can cause irritation.

4.3 Indication of Immediate Medical Attention and Special Treatment

Any time symptoms of eye or respiratory irritation occur, immediate first aid should be provided as described in Section 4.1, and medical attention should be obtained if irritation persists.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Material is not combustible.

5.2 Special Hazards Arising from the Substance or Mixture

Fire Hazard: Not combustible.

Explosion Hazard: Material is not explosive.

Reactivity: Hazardous reactions are not expected to occur under normal conditions.

5.3 Advice for Firefighters

Not applicable.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

General Measures: Do not breathe dust. Do not get in eyes, on skin, or on clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Not applicable.

6.1.2. For Emergency Personnel

Protective Equipment: Equip clean-up crew with proper protection.

Emergency Procedures: Ventilate area if dust is generated.

6.2 Environmental Precautions

Reuse product as appropriate to avoid disposal.

6.3 Methods and Material for Containment and Clean-Up

Containment: Contain and collect as any solid. Avoid actions that cause dust to become airborne. Do not breathe dust, and do not allow large quantities of dust to contact skin or eyes.

6.4 Reference to Other Sections

See Section 8. Exposure Controls and Personal Protection. For waste management information, refer to Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Additional Hazards when Processed: Dust will be generated when transferring this material. Use engineered controls and other practices to control dust. Personal Protective Equipment (PPE) described in Section 8 should be used, as necessary.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking, and again when leaving work.

7.2 Conditions for Safe Storage, Including any Incompatibilities

Not applicable.

7.3 Specific End-Use(s)

No applicable limits.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure Limits

The following exposure limits are based on a time-weighted full-shift exposure, unless otherwise noted.

Ingredient	OSHA PEL[(1)] (mg/m^3)	ACGIH-TLV[(2)] (mg/m^3)	Other[(3)] (mg/m^3)
Silica, amorphous	80 $mg/m^3 \div \%SiO_2$	10 (total) 3 (respirable)	6 (total)
Crystalline silica (quartz)[(4)]	50 $\mu g/m^3$ [0.05 mg/m^3 (respirable)]	0.025 (respirable)	0.05 (respirable)
Aluminum oxide	15 (total) 5 (respirable)	1 (respirable fraction containing no asbestos and < 1% crystalline silica)	10 (total) 5 (respirable)
Potassium oxide as PNOR[(5)]	15 (total) 5 (respirable)	10 (inhalable)	None Established
Sodium oxide as PNOR[(5)]	15 (total) 5 (respirable)	10 (inhalable) 3 (respirable)	None Established
Calcium oxide	5 (total)	2 (inhalable)	2 (total)

fn[(1)] OSHA PEL (Permissible Exposure Limits at 29 CFR 1910.1000)

fn[(2)] ACGIH-TLV (American Conference of Governmental Industrial Hygienists-Threshold Limit Values 2020)

fn[(3)] NIOSH REL (National Institute for Occupational Safety & Health Recommended Exposure Limit)

fn[(4)] The amount of airborne respirable crystalline silica in representative samples has been determined. (*See* Section 8.2.)

fn[(5)] PNOR – Particulates Not Otherwise Regulated

8.2 Exposure Controls

Appropriate Engineering Controls: Emergency eyewash equipment should be available in the immediate vicinity of any potential exposure. Use local exhaust or other suppression methods to maintain dust levels below exposure limits.

Personal Protective Equipment: Protective goggles or safety glasses, gloves, protective clothing. Wear respiratory protection if dust is present when transferring or processing.

Hand Protection: Protective gloves as appropriate to prevent irritation and other hand injuries.

Eye and/or Face Protection: Approved safety glasses, goggles, and/or face-shield.

Skin and Body Protection: Appropriate work clothing and footwear should be worn.

Respiratory Protection: If exposure limits may be exceeded or irritation is experienced, approved respiratory protection should be worn in accordance with OSHA Respiratory Protection Standard [29 CFR 1910.134].

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical State: Solid.
Appearance: Solid granular or powder.
Odor: Slight earth-like odor.
Odor Threshold: No data.
pH: 8 – 10
Evaporation Rate: Not applicable.
Melting Point: Not applicable.
Freezing Point: Not applicable.
Boiling Point: Not applicable.
Flashpoint: No data.
Auto-Ignition Temperature: No data.
Decomposition Temperature: No data.
Flammability (solid, gas): No data .

Lower Flammable Limit: No data.
Upper Flammable Limit: No data.
Vapor Pressure: No data.
Relative Density: 2.4 g/cc.
Solubility: Insoluble.
Partition Coefficient—N-Octanol/Water: Not applicable.
Viscosity: Not applicable.
Explosion Data—Sensitivity to Mechanical Impact: Not applicable.
Explosion Data—Sensitivity to Static Discharge: Not applicable.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Hazardous reactions are not expected to occur under normal conditions.

10.2 Chemical Stability

Stable under recommended use and storage conditions.

10.3 Possibility of Hazardous Reactions

Not applicable.

10.4 Conditions to Avoid

Avoid contact with hydrofluoric acid.

10.5 Incompatible Materials

Strong acids, strong bases, hydrogen fluoride.

10.6 Hazardous Decomposition Products

Not applicable.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Likely Routes of Exposure

Skin Contact: Material may irritate unprotected skin.

Eye Contact: Material may cause serious irritation of unprotected eyes.

Inhalation: Respirable dust may be generated that if inhaled, can cause respiratory system irritation. Prolonged or repeated inhalation exposure may cause chronic respiratory illness, including silicosis and cancer.

Ingestion: Not expected to be an exposure route of concern.

11.2 Symptoms Related to Physical, Chemical, and Toxicological Characteristics

Immediate Effects: Irritation of skin, eyes, and respiratory tract due to dust inhalation or exposure of eyes and skin to material.

Delayed and Chronic Effects: Inhalation of dust on a prolonged or repeated basis may result in chronic lung disease or silicosis, and may also result in lung cancer.

11.3 Numerical Measures of Toxicity

The acute and chronic effects of exposure to this product's dust have not been quantified.

11.4 Carcinogenicity

The ingredient quartz, also known as crystalline silica, has been determined to be carcinogenic by the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP).

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No additional information available.

12.2 Persistence and Degradability

Not available.

12.3 Bioaccumulative Potential

Not available.

12.4 Mobility in Soil

Not available.

12.5 Other Adverse Effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal Recommendations: Excess material should be re-used or recycled. Material as a waste is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) (40 CFR 261), but waste material should be prevented from entering sewer systems, surface waters or the environment. Dispose of waste material in accordance with all local, regional, national, provincial, territorial, and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Not regulated for transport.

14.2 In Accordance with IMDG

Not regulated for transport.

14.3 In Accordance with IATA

Not regulated for transport.

14.4 In Accordance with TDG

Not regulated for transport.

SECTION 15: REGULATORY INFORMATION

15.1 U.S. Federal Regulations

SARA Section 311/312 Hazard Classes

Reporting of pozzolan is required if inventory reporting threshold (10,000 pounds) is exceeded in the following hazard classes:

- Skin corrosion or irritation
- Serious eye damage or irritation
- Specific target organ toxicity (single or repeated exposure)—Respiratory

SARA Section 313 Emission Reporting

This product may contain constituents listed under SARA (Title III) Section 313, but not in amounts requiring supplier notification under 40 CFR Part 372, Subpart C.

TSCA Inventory

All constituents are included on the Toxic Substances Control Act Chemical Inventory (40 CFR 720).

15.2 U.S. State Regulations

State Right-to-Know Laws

Natural pozzolan contains hazardous substances subject to inventory reporting and other requirements of the Massachusetts, New Jersey and/or Pennsylvania right-to-know laws.

Component	CAS No.	Component	CAS No.
Aluminum oxide	1344-28-1	Silica, amorphous	61790-53-2
Calcium oxide	1305-78-8	Silica – crystalline (quartz)	14808-60-7
Potassium oxide	12136-45-7	Sodium oxide	1313-59-3

References to Table:

Massachusetts: 301 CMR 41, *et seq.* (January 16, 2015)

New Jersey: New Jersey Revised Statutes 34:5A-5 (2016) and New Jersey Health Department List

Pennsylvania: Title 34 Pennsylvania Code, Chapter 323

Note: These lists include specific chemicals and cross-references to other regulatory lists; for example, EPCRA § 313 and OSHA PELs at 29 CFR 1910.1000.

California Proposition 65—Warning Required [California Health and Safety Code § 25249.6]

This regulation requires a warning at any detectable level of exposure. Refer to Section 2.4.

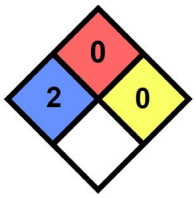
15.3 Canadian WHMIS Regulations

As a manufactured article, this product is excluded from WHMIS 2015 regulation.

15.4 Other: HMIS and NFPA

HMIS:

NFPA:



SECTION 16: OTHER INFORMATION

Party Responsible for Preparation of this Document

Eco Material Technologies Inc., and its subsidiary and affiliate companies
(801) 984-9400

Limitations

The information and recommendations set forth herein are based on data we have in our possession, and we have reason to believe is accurate. It is, however, the user's responsibility to determine the safety, toxicity, or suitability for his/her own use of the herein described product. Because the actions by others is beyond our control, Eco Material Technologies Inc., and its subsidiary and affiliate companies makes no warranty expressed or implied regarding accuracy of the data or the results to be obtained from the use thereof.