

# Z-mendit™

## Safety Data Sheet

Revision Date: 7/01/16

Supersedes: all previous versions

### SECTION 1: Identification

**Product Identifier:** Zeolite (Clinoptilolite 1000%)  
Natural Mineral zeolite consisting predominantly of the mineral phase, clinoptilolite.

**Manufacturer:** Turfgrass Management, Inc. d/b/a Grigg Brothers  
PO BOX 128, Albion, ID 83311  
<http://www.griggbros.com>  
Phone: (208) 673-6340 Fax: (866) 519-3265  
Emergency Phone: Contact Local Poison Control Center.

**Recommended Use:** Soil Amendment and Fertilizer combination.

**Restrictions of Use:** Not FDA approved for human consumption .

### SECTION 2: Hazard(s) Identification

**GHS-US Classification:**

Oral Toxicity 5	H303
Skin Irritant 3	H316
Eye Irritant 2B	H320
STOT SE 3	H335

**Signal Word:** Warning

**GHS-US Pictograms:**



**Hazard Statements:**

H303 – May be harmful if swallowed.  
H316 – Causes mild skin irritation.  
H320 – Causes eye irritation.  
H335 – May cause respiratory irritation.

**Precautionary Statements:**

P261 – Avoid breathing dusts.  
P264 – Wash hands, forearms & exposed areas thoroughly after handling.  
P280 – Wear eye/face protection & protective gloves. Wear safety glasses or chemical goggles. Wear plastic, rubber or cotton gloves.  
*Refer to 29 CFR 1910.133 or European Standard EN166.*  
P284 – Wear respiratory protection. Use NIOSH approved dust mask or respirator where dust occurs.  
*Refer to 29 CFR 1910.134 or European Standard EN149.*  
P285 – In case of inadequate ventilation, wear respiratory protection.

- P301+P312 – **IF SWALLOWED:** Call a poison center or doctor if you feel unwell.
- P302+P352 – **IF ON SKIN:** Wash with plenty of soap and water.
- P332+P313 – If skin irritation persists, get medical advice/attention.
- P304+P341 – **IF INHALED:** If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P304+P312 – **IF INHALED:** Call a poison center or doctor if you feel unwell.
- P305+P351+P338 – **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 – If eye irritation persists, get medical advice/attention.
- P501 – Dispose of contents/container in accordance with local, regional, national and international regulations.

**Other Hazards:** May contain greater than 0.10% free silica. Crystalline silica was not detected by X-Ray Defraction Analysis, but may be present above the notification level of 0.10%. *(Crystalline silica is considered a hazard by inhalation. During October, 1996, IARC reviewed the literature for polymorphs of crystalline silica and determined that there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobolite from occupational sources.)*

Does **not** contain asbestos or fibrous zeolite minerals.

**Unknown Acute Toxicity (GHS-US):** No data available.

### SECTION 3: Composition / Information on Ingredients

Name	Product Identifier	%	GHS-US Classification
Natural Clinoptilolite	(CAS No.) 12173-10-3	100	Oral Toxicity 5, H303 Skin Irrit. 3, H316 Eye Irrit. 2B, H320 STOT SE 3, H335

Full text of H-phrases: See Section 16

## **SECTION 4: First Aid Measures**

### **Description of First Aid Measures by Route of Exposure**

- Ingestion: If ingested in large quantities, contact physician for permission to induce vomiting.
- Skin Contact: Rinse with water. Use hand moisturizer to sooth dryness. If irritation persists or worsens, seek medical attention.
- Eye Contact: Remove contact lenses. Flush eyes with water for 15 minutes. If irritation persists or worsens, seek medical attention.
- Inhalation: Move subject to fresh air. Rinse mouth & nasal passages with water. If irritation persists or worsens, seek medical attention.

### **Most Important Symptoms (Acute and Delayed)**

- Symptoms/Injuries after Ingestion: May cause dry cough, slight nausea.
- Symptoms/Injuries after Skin Contact: Causes dry, rough skin.
- Symptoms/Injuries after Eye Contact: Causes eye irritation, potential corneal scratching.
- Symptoms/Injuries after Inhalation: May cause dry cough.

## **SECTION 5: Fire-Fighting Measures**

- General Hazards: Product is not considered flammable or combustible.
- Suitable Extinguishing Media: N/A
- Unsuitable Extinguishing Media: N/A
- Advice for Fire-Fighters: N/A

## **SECTION 6: Accidental Release Measures**

### **Personal Precautions, Protective Equipment and Emergency Procedures**

- General: No known adverse effects to the environment. Avoid breathing dust. Wear eye/face protection & protective gloves. Wear respiratory protection. Refer to Section 2 – Hazards Identification, Precautionary Statements.

### **For Non-Emergency Personnel**

- Protective Equipment: Use appropriate personal protection equipment (PPE).
- Emergency Procedures: Evacuate unnecessary personnel.

### **For Emergency Responders**

- Protective Equipment: Use appropriate personal protection equipment (PPE).
- Emergency Procedures: Ventilate area.

### **Environmental Precautions**

- There are no known adverse effects to the environment.

### **Methods and Material for Containment and Clean-Up**

- Containment: Sweep, scoop, or vacuum discharged material.
- Clean-Up: Landfill according to local, state, national and international regulations.

## SECTION 7: Handling and Storage

### Precautions for Safe Handling

- Keep container closed when not in use.
- Keep out of the reach of children.

### Hygiene Measures

- Handle in accordance with good industrial hygiene and safety procedures. Wash hands with mild soap and water before eating, drinking or smoking and again when leaving work.

### Safe Storage Conditions

- Store in a cool, dry area.
- Keep container closed when not in use.
- Protect containers from abuse.

### Incompatible Products and Materials

- N/A

### Special Rules for Packaging

- N/A

## SECTION 8: Exposure Controls / Personal Protection

**USA ACGIH:** Values have not been established

**Recommended Threshold Limit:** Ceiling Limit = 15 mg/m<sup>3</sup> total dust  
5mg/m<sup>3</sup> Respirable Fraction

**Exposure Analysis Method:** Respirable Sampler or Midget Impinger  
See: J. Am. Ind. Hyg. Assoc., 28:554 (1967)

### Exposure Controls

- **Appropriate Engineering Controls:** Ensure all national/local regulations are observed.
- **Personal Protective Equipment:** Wear eye/face protection, protective gloves and respiratory protection.



- **Eye Protection:** Wear safety glasses or chemical goggles.
- **Hand Protection:** Wear plastic, rubber or cotton gloves.
- **Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, wear NIOSH approved respiratory protection.
- **Thermal Hazard Protection:** N/A

**SECTION 9: Physical and Chemical Properties**

<b><u>Physical &amp; Chemical Properties</u></b>	<b><u>Clinoptilolite</u></b>
Physical State:	Pulverized Rock
Appearance:	Dry Granules & Powders
Color:	White to Off-White, Greenish
Odor & Odor Threshold:	Odorless, No Threshold
Vapor Pressure:	N/A
Vapor Density:	N/A
pH:	N/A
Relative Density:	No Data Available
Relative Evaporation Rate:	N/A
Melting Point:	1800 °F
Freezing Point:	No Data Available
Boiling Point:	N/A
Flash Point:	N/A
Solubility in Water:	0
Flammability:	N/A
Partition Coefficient:	No Data Available
Auto-Ignition Temperature:	No Data Available
Decomposition Temperature:	No Data Available
Viscosity:	N/A
Specific Gravity:	2.2 – 2.4
Solids Content:	N/A
Explosive Limits:	N/A
Other Information:	None Available

**SECTION 10: Stability and Reactivity**

<b>Reactivity:</b>	Products are not considered flammable or combustible.	
<b>Chemical Stability:</b>	Stable. No stabilizers needed. No safety issues.	
<b>Conditions to Avoid:</b>	N/A	
<b>Incompatible Materials:</b>	No materials to avoid.	
<b>Hazardous Decomposition Products:</b>	N/A	
<b>NFPA Hazard Ratings:</b>	Health Hazard: 1	Flammability Hazard: 0
	Reactivity: 0	Special Hazard: None

**SECTION 11: Toxicological Information**

<b>Acute Toxicity:</b>	Not Classified
<b>Listed on NTP Report on Carcinogens?</b>	No
<b>Listed as potential carcinogen in IARC Monographs?</b>	No
<b>Listed as potential carcinogen by OSHA?</b>	No

Product	CAS #	EINECS #	LC50	LD50
Clinoptilolite	12173-10-3	Not found	N/A	N/A

**Likely Routes of Exposure**

Inhalation:  
Skin Contact:  
Eye Contact:  
Ingestion:

**Symptoms – Low Exposure**

Respiratory irritation  
Dry skin  
Itchy, irritated eyes  
Dry cough

**Symptoms – Severe Exposure**

Shortness of breath  
Chapping  
Corneal abrasions  
Gagging

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### **Effects from Short-Term Exposure**

- Immediate Effects: See “Symptoms – Low Exposure” above
- Delayed Effects: See “Symptoms – Low Exposure” above
- Chronic Effects: Undocumented

### **Effects from Long-Term Exposure**

- Immediate Effects: See “Symptoms – Severe Exposure” above
- Delayed Effects: See “Symptoms – Severe Exposure” above
- Chronic Effects: Undocumented

## **SECTION 12: Ecological Information**

No data available. None of the ingredients are classified as a marine pollutant.

## **SECTION 13: Disposal Considerations**

Refer to Section 8 – Exposure Controls / Personal Protection.

Dispose of in accordance with local, state, national and international regulations. Product is classified as non-hazardous, however, non-hazardous materials may become hazardous waste upon contact with other products. Refer to “40 CFR Protection of Environment Parts 260-299” for complete waste disposal regulations. Consult your local, state or federal environmental protection agency before disposing of any chemicals. According to the European Waste Catalogue, waste codes are application-specific and should be assigned by the user based on the application for which the product is used.

## **SECTION 14: Transportation Information**

<b>DOT Shipping Name:</b> Non-Hazardous for Transport	<b>IMDG Hazard Class:</b> Not Regulated
<b>DOT Hazard Class:</b> Not Regulated	<b>IATA Hazard Class:</b> Not Regulated
<b>UN/NA ID No.:</b> None	<b>RID/ADR Code:</b> Not Regulated
<b>Hazard Id No. (HIN):</b> None	<b>Hazard Symbols:</b> None

## **SECTION 15: Regulatory Information**

### **TSCA (U.S.A. – Toxic Substance Control Act)**

All components of this product are not listed on the U.S. Toxic Substances Control Act Chemical Inventory or are exempted from listing because a Low Volume or Polymer Exemption has been granted in accordance with 40 CFR 723.50.

### **SARA TITLE III (U.S.A. – Superfund Amendments & Reauthorization Act)**

311/312 Hazard Categories – Immediate Health, 313 Reportable Ingredients – None

### **CERCLA (U.S.A. – Comprehensive Response Compensation & Liability Act)**

None

### **California Prop 65, Safe Drinking Water & Toxic Enforcement Act of 1986**

There are no chemicals present known to the State of California to cause cancer or reproductive toxicity.

### **CPR (Canadian Controlled Products Regulations)**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. WHMIS Classification: Not controlled

### **IDL (Canadian Ingredient Disclosure List)**

Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 3.

