



“Purity You Can Trust”

KMI Zeolite Safety Data Sheet

Section 1: Identification

<i>Product identified:</i>	Clinoptilolite – Natural Zeolite CAS No. 1318-02-1	
<i>Restrictions on use or sale:</i>	None	
<i>Company:</i>	KMI Zeolite Inc. PO Box 5139 2300 Postal Dr. Pahrump, NV 89041 USA	Phone: 855-823-3777 Fax: 800-220-4865 Website: www.kmizeolite.com Email at: info@kmizeolite.com
<i>Emergency telephone number:</i>	775-373-5415	

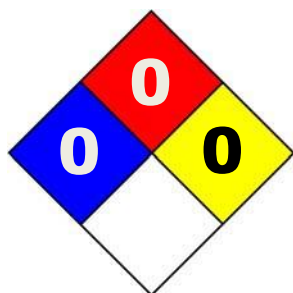
Section 2: Hazard Identification

Regulation (EU) No 1272/2008

<i>GHS regulations:</i>	Not classified as hazardous.
<i>CLP regulation:</i>	Not classified as hazardous.
<i>Directive 67/548/EEC:</i>	Not applicable.
<i>Directive 1999/45/EC:</i>	Not applicable.
<i>Classification system:</i>	The classification is according to the latest editions of the EU-lists and extended by company literature data. The classification is in accordance with the latest editions of international substances lists and is supplemented by information from technical literature.

Label elements:

<i>Regulation (EC) No 1272/2008:</i>	Not regulated.
<i>Hazard pictogram:</i>	Not regulated.
<i>Signal word:</i>	Not regulated.
<i>Hazard determining components:</i>	None.
<i>Hazard statements:</i>	Not regulated.
<i>NFPA Hazard Rating (Scale 0 to 4)</i>	



Health (Blue)	0	No precaution necessary.
Flammability (Red)	0	Non combustible.
Reactivity (Yellow)	0	Not reactive when mixed with water.
Special (White)	None	

HMIS Hazard Rating (Scale 0 to 4)

HEALTH	0
FLAMMABILITY	0
REACTIVITY	0

Health (Blue)	0	No significant health risk.
Flammability (Red)	0	Will not burn.
Reactivity (Yellow)	0	Will not react, polymerize, decompose, condense, or self react. Non-explosive.

<i>PBT and vPvB Assessment:</i>	PBT	Not applicable.
	vPvB	Not applicable.

Section 3: Composition/Information on ingredients

Dangerous components: None in reportable quantities.

<i>Chemical and common name</i>	<i>Wt. %</i>	<i>CAS Registry</i>	<i>EINECS</i>
Clinoptilolite (natural zeolite)	90-97	12173-10-3	215-283-8
Water	3-10	7732-18-5	231-791-2

Section 4. First Aid Measures

<i>General:</i>	No special measures required.
<i>After inhalation:</i>	Supply fresh air; consult doctor in case of complaints.
<i>After skin contact:</i>	Clean with water and soap. If skin irritation is experienced, consult a doctor.
<i>After eye contact:</i>	Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
<i>After swallowing:</i>	Rinse out mouth and then drink plenty of water. Do not induce vomiting. Treat symptomatically.

Section 5. Fire-Fighting Measures

<i>Suitable extinguishing media:</i>	Noncombustible.
<i>Extinguishing media:</i>	Compatible with all extinguishing media.
<i>Unusual hazards:</i>	None known.

Section 6. Accidental Release Measures

<i>Personal precautions:</i>	Avoid dust – use NIOSH approved respirator where dust occurs.
<i>Environmental precautions:</i>	No special measures required.
<i>Protection equipment:</i>	Safety glasses or chemical goggles.
<i>Spills cleanup:</i>	Pick up mechanically and place in a suitable container - avoid generating dust.

Section 7. Handling and Storage

<i>Safe handling:</i>	Avoid contact with eyes, skin, and clothing. Avoid generating and breathing dust.
<i>Safe storage:</i>	No special requirements.

Section 8. Exposure Controls and Personal Protection

<i>Limit values:</i>	Does not contain any relevant quantities of materials with critical values that have to
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	be monitored in the workplace.
<i>DNEL:</i>	No further information available.
<i>DNEC:</i>	No further information available.
<i>General protection:</i>	Use in a well ventilated workplace. Avoid generating and contacting dust.
<i>Eye protection:</i>	Wear safety glasses.



<i>Respiratory protection:</i>	Not necessary in well ventilated area.
<i>Skin protection:</i>	Wear protective gloves against mechanical hazards according to NIOSH or EN 388.
<i>Body protection:</i>	Not required under normal conditions of use.

Sections 9. Physical and Chemical Properties

<i>Appearance:</i>	Light tan solid (powders and granules).
<i>Odor:</i>	Odorless.
<i>Odor threshold:</i>	Not determined.
<i>pH values:</i>	Not applicable.
<i>Change in condition:</i>	Melting point/melting range: Not determined. Boiling point/boiling range: Not determined.
<i>Flash point:</i>	Not applicable. Will not burn.
<i>Evaporation rate:</i>	Not applicable; does not evaporate.
<i>Flammability (solid, gas):</i>	Not flammable. Upper/lower limits: Not applicable.
<i>Danger of explosion:</i>	Does not present and explosive hazard. Upper/lower limits: Not applicable.
<i>Vapor density:</i>	Does not apply. Does not evaporate.
<i>Relative density:</i>	Not determined
<i>Solubility:</i>	Water Insoluble. Alcohol Insoluble.
<i>Partition coefficient:</i>	Not applicable (insoluble in n-octanol and water).
<i>Auto ignition temperature:</i>	Will not auto ignite.
<i>Decomposition temperature:</i>	Not determined.
<i>Viscosity:</i>	Not applicable - solid.

Section 10. Stability and Reactivity

<i>Chemical stability</i>	Stable if used as intended.
<i>Thermal stability:</i>	Stable if used as intended.
<i>Hazardous reaction:</i>	Possibility of hazardous reaction with strong acids and strong alkali.
<i>Conditions to avoid</i>	No further information available.
<i>Materials to avoid</i>	Strong acids and strong bases.
<i>Hazardous decomposition:</i>	No further information available.

Section 11. Toxicological Information

<i>Toxicological:</i>	When used and handled according to instructions, the product does not have any
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	harmful effects based upon our experience.
<i>Sensitization:</i>	No sensitizing effects known.
<i>General EU Guidelines:</i>	Not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
<i>NTP</i>	Not listed in the National Toxicological Program <i>Report on Carcinogens</i> , 2011.
<i>IARC</i>	International Agency for Research on Cancer <i>MONOGRAPHS VOLUME 68</i> : clinoptilolite cannot be evaluated as to the carcinogenicity to humans (Group 3).

Section 12. Ecological Information

<i>Toxicity:</i>	No known toxicity to plants or animals.
<i>Environmental fate</i>	Inorganic material does not decompose and is not eliminated from environment by means of biological cleaning processes.
<i>Bioaccumulation:</i>	Does not bioaccumulate in animal or plants.
<i>Mobility in soil:</i>	Not mobile.

Section 13. Disposal Consideration

<i>Classification:</i>	Not a RCRA Hazardous Waste.
<i>Disposal method:</i>	Dispose in accordance with federal, state (provincial), and local regulations.

Section 14. Transportation Information

<i>UN Number:</i>	DOT, ADR, ADN, IMDG, IATA:	Not Regulated.
<i>UN Proper Shipping Name:</i>	DOT, ADR, ADN, IMDG, IATA:	Not Regulated.
<i>Transport Hazard Class:</i>	DOT, ADR, ADN, IMDG, IATA:	Not Regulated.
<i>Packing Group:</i>	DOT, ADR, IMDG, IATA:	Not Regulated.
<i>Marine pollutant:</i>	No.	
<i>Proper shipping name:</i>	Non-Hazardous for Transport.	
<i>Hazard Symbol:</i>	None required.	
<i>Hazard Id Number (HIM):</i>	None.	

15. Regulatory Information

United States

<i>SARA 355:</i>	Extremely hazardous substances:	None of the ingredients listed.
<i>SARA 313:</i>	Specific toxic chemical listings:	None of the ingredients listed.
<i>TSCA:</i>	All of the ingredients are listed.	
<i>California Prop 65:</i>	Known to cause cancer:	None of the ingredients listed.
	Known to cause reproductive toxicity:	None of the ingredients listed.
	Known to cause developmental toxicity:	None of the ingredients listed.
<i>Carcinogen categories:</i>	EPA	None of the ingredients listed.
	IARC	None of the ingredients listed.
	TLV by ACGHI	None of the ingredients listed.
	NIOSH-Ca	None of the ingredients listed.
	Ingredients Disclosure List (limit 0.1%)	None of the ingredients listed.
	Ingredients Disclosure List (limit 1%)	None of the ingredients listed.
<i>REACH, Article 57:</i>	Substances of very high concern (SVHC)	None of the ingredients listed.

Canada: CPR: (Canadian Controlled Products Regulations): This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. WHMIS Classification: Not Controlled.

DSL / NDSL: (Canadian Domestic Substances List / Non-Domestic Substance List): Components of this product identified by CAS number are not listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notifications (NSN) regulations.

Chemical Safety Assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

Safety Data Sheet:

Approved by: Conrad K. Wagenaar

Date: January 11, 2016

Abbreviations:

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS	Chemical Abstracts Service (division of the American Chemical Society)
CLP	Classification, Labeling, and Packaging Regulation (EC) No 1272/2008
DNEL	Derived No-Effect Level (REACH)
DOT	US Department of Transportation
DSL	Domestic Substance List
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EPA	Environmental Protection Agency
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
HMIS	Hazardous Materials Identification System (USA)
IARC	International Agency of Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
NIOSH	National Institute of Occupational Safety and Health
NFPA	National Fire Protection Association (USA)
NTP	National Toxicological Program
PBT	Persistent, Bioaccumulative, and Toxic
PNEC	Predicted No-Effect Concentration (REACH)
REACH	Registration, Evaluation, Authorization, and Restriction of Chemicals; (EC) 1907/2008
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendment and Reauthorization Act
SVHC	Substances of very high concern
TSCA	Toxic Substances Control Act
TLV	Threshold Limit Value
vPvB	Very persistent and very bioaccumulative
WHMIS	Workplace Hazardous Materials Information System (Canada)

The information on this Safety Data Sheet is believed to be accurate and is the best information available to KMI Inc. This document is intended only as a guide to the appropriate precautions for handling. KMI Inc. makes no warranty of merchantability or any other warrant, expressed or implied with respect to the information or the product to which this Safety Sheet relates. Users and handlers of this product should make their own investigations to determine the suitability of the information provided herein for their own purposes.

KMI Zeolite Inc.
MATERIAL SAFETY DATA SHEET

May 5,2011

1. PRODUCT IDENTIFICATION

PRODUCT: KMI Zeolite Inc. Natural Clinoptilolite Zeolite
CHEMICAL NAME: Potassium Sodium Magnesium Calcium Aluminosilicate Mineral
SYNONYMS: Zeolite, Clinoptilolite
US DEPARTMENT OF LABOR OMB NO. 1218-0072

2. COMPANY IDENTIFICATION

COMPANY NAME: KMI Zeolite Inc.
MAILING ADDRESS: H.C.R. 37 - P.O. BOX 52, Sandy Valley, Nevada 89019, U.S.A.
PHYSICAL ADDRESS: 3100 East Sandy Valley Road, Nevada 89019, U.S.A.
PHONE NUMBER: 702-723-5415 FAX NUMBER: 702-723-5416 WEBSITE: www.kmizeolite.com

3. PHYSICAL DATA

COLOR AND ODOR: Off white, odourless
SPECIFIC GRAVITY: 1.5 - 1.7
SOLUBILITY IN WATER: 0
VAPOR PRESSURE: Not applicable
EVAPORATION RATE: Not applicable
BOILING POINT: Not applicable
FREEZING POINT: Not applicable
MELTING POINT: 1800 F

4. HEALTH HAZARD INFORMATION

EYE CONTACT: May cause irritation
SKIN CONTACT: May cause irritation
INHALATION: Causes irritation
INGESTION: No hazards known or suspected
CHRONIC HAZARDS: No known hazards, contains no detectable crystalline silica, not listed by OSHA, NTP, or IARC as a carcinogen
SYMPTOMS OF EXPOSURE: Coughing and irritation of respiratory tract

5. EXPOSURE CONTROL MEASURES

RESPIRATORY PROTECTION: Use NIOSH approved dust mask or respirator where dust occurs.
GLOVES: Plastic, rubber, or cotton
EYE PROTECTION: Safety goggles, or chemical goggles
OTHER PROTECTIVE EQUIPMENT: Not applicable
PERSONAL HYGIENE: Avoid breathing dust
ENGINEERING CONTROL: Use with adequate ventilation

6. FIRST AID MEASURES

SWALLOWING: If ingested in large quantities, contact physician to induce vomiting.
SKIN CONTACT: Rinse with water if irritation ensues.
INHALATION: Remove the person to fresh air, rinse mouth and nasal passages with fresh water. Seek medical attention if irritation persists.
EYE CONTACT: Check for and remove contact lenses. Flush eyes with water for 15 minutes. Seek medical attention if irritation persists.

7. FIRE AND EXPLOSION DATA

FLASH POINT:	Not applicable
FLAMMABLE LIMITS:	Not applicable
FIRE EXTINGUISHING MEDIA:	Not applicable
SPECIAL FIRE FIGHTING PROCEDURES:	Non combustible
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None

8. REACTIVITY DATA

STABILITY:	Stable
CONDITIONS TO AVOID:	Not applicable
INCOMPATIBILITY (Materials to avoid):	None

9. SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED: Physical clean up is required only to prevent sediment to surface water courses, depending on particle size of the product - no known environmental hazards
WASTE DISPOSAL METHOD: Spills should be cleaned up in a manner that minimizes the generation of dust as a potential nuisance, or may be dispersed of in landfill according to local, state, and federal regulations
PRECAUTIONS WHEN HANDLING AND STORING: Avoid breathing dust, may irritate the respiratory tract
OTHER PRECAUTIONS: None

10. ECOLOGICAL CONSIDERATIONS

WATERFOWL TOXICITY:	Not Applicable
AQUATIC TOXICITY:	Not Applicable
FOOD CHAIN CONCENTRATION POTENTIAL:	Not Applicable
BIOCHEMICAL OXYGEN DEMAND:	Not Applicable
ATMOSPHERIC:	Contain no ozone depleting substances.

11. TRANSPORTATION INFORMATION

PROPER SHIPPING NAME:	Non-Hazardous for Transport
IATA HAZARD CLASS/PACKAGING GROUP:	Not Regulated
DOT HAZARD CLASS/PACKAGING GROUP:	Not Regulated
IMDG HAZARD CLASS:	Not Regulated
REFERENCE:	Not Applicable RID/ADR
DANGEROUS GOODS CODE:	Not Regulated
UN/NA IDENTIFICATION NUMBER:	None
UN TDG CLASS/PACKAGING GROUP:	Not Regulated
LABEL:	None Required
HAZARD IDENTIFICATION NUMBER (HIN):	None

12. REGULATORY INFORMATION

California Prop 65: There are no chemicals present in product 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 CPR and the MSDS contains all the information required by the CPR. WHMIS Classification: Not Controlled

DSL / NDSL: (Canadian Domestic Substances List / Non-Domestic Substance List): Components of this product identified by CAS number are not listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notifications (NSN) regulations.

It is recommended that all recipients of this MSDS become familiar with and understand any hazards associated with this product. This information should then be made available to employees and customers who may come in contact with this material.



PRODUCT DATA SHEET

High Purity 97% Clinoptilolite zeolite - Produced at Amargosa Valley, NV 89020

Hydrous Sodium Aluminosilicate 100% Natural Clinoptilolite

TYPICAL PROPERTIES

General Chemical Formula	Na ₆ [Al ₆ Si ₃₀ O ₇₂] ₂₄ H ₂ O
Clinoptilolite Content	97%+
Cation Exchange Capacity (CEC)	1.6 – 2.0 meq/g
Form	Granules and powders
Shape	Angular
Color	Beige / Gray
Pore Diameter	4.0 – 7.0 angstroms
Specific Gravity	1.89
Specific Surface Area	40m ² /g
Bulk Density	45 - 54 lbs/ft ³
pH stability	3.0 – 10.00
Hardness	4.0 - 5.0 Mohs
Swelling Index	Nil

TYPICAL CHEMICAL ANALYSIS – CHEMISTRY OF ZEOFFILL

SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	Na ₂ O	K ₂ O	MnO	TiO ₂
66.7%	11.48%	0.9%	1.33%	0.27%	1.80%	3.42%	0.025%	0.13%

MAJOR EXCHANGEABLE CATIONS

Rb ⁺	Na ⁺	Ba ⁺²	Mg ⁺²	Li ⁺	Ag ⁺	Sr ⁺²	Fe ⁺³	K ⁺	Cd ⁺²
Cu ⁺²	Co ⁺³	Cs ⁺	Pb ⁺²	Ca ⁺²	Al ⁺³	NH ⁺⁴	Zn ⁺²	Hg ⁺²	Cr ⁺³



CERTIFICATIONS / DESIGNATIONS

Organic Materials Review Institute – ZeoFill certificate #ZEO-3722

CAS Registration : 12173-10-3 Clinoptilolite Zeolite

TSCA (USA – Toxic Substance Control Act) : No components listed.

Water Quality Association Gold Certified Supplier.

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986 : There are no chemicals present known to the state of California to cause cancer or reproductive toxicity.

U.S. Food and Drug Administration (USFDA), Federal Code, Title 21 : GRAS (Generally Recognized as Safe) approved under 21 CFR Part 182.2729 for use up to 2% in animal feed in accordance with good management practice. Zeolites are exempted from a tolerance as a solid diluents or carrier when used in accordance with good agricultural practice. (40 CFR, Part 180.1001).

KMI UltraGrow product no. kmi-3641 - OMRI Listed USDA National Organic Program Rule

EN-71-3 Safety of Toys Part 3 – Migration of Certain Elements Results – **PASS**

*Information contained herein is, to the best of our knowledge, correct. The data outlined and the statements made are intended only as a source of information.