



## SAFETY DATA SHEET

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### SECTION 1 – IDENTIFICATION

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#### 1.1 Product Identifier

Product number and name      **99066 VULTURE CREEK CLINO, HEAT TREATED**  
Product type                      Natural molecular sieve

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses        Filtration, ion exchange  
Uses advised against            No specific uses advised against.  
   Avoid eye contact and/or inhalation.

#### 1.3 Details of Supplier of Safety Data Sheet

Processed by	Prattley Perlite Mining Company (Proprietary) Ltd 14 Jackson Street, Fectoria, Krugersdorp, 1745 South Africa Tel: +27-11-955-2190 Fax: +27-11-955-3918 <a href="http://www.prattleyminerals.com">www.prattleyminerals.com</a>
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#### 1.4 Emergency Telephone Number

South Africa    +27-11-955-2190 during office hours  
                         10117 All emergencies  
                         +27-21-689-5227 Poisons Information Centre

Europe 112 All emergencies

For detailed poison information, the national poison centre, if available, should be contacted.

United Kingdom 999 All emergencies

111 (NHS, England, NHS 24, Scotland or NHS Direct, Wales),

0808 808 8000 (Lifeline, N. Ireland)

01 809 2166 (National Poison Information Centre, Republic of Ireland)

Australia 000 All emergencies

13 11 26 NSW Poison Information Centre

New Zealand 111 All emergencies

0800 764 766 National Poisons Centre (poisons@otago.ac.nz)

Americas 911 All emergencies

1-800-222-1222 Poisons Help (PoisonHelp.org)

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## SECTION 2 – HAZARDS IDENTIFICATION

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### 2.1 Classification of the substance or mixture

#### 2.1.1 Classification

NOT CLASSIFIED AS HAZARDOUS.

#### 2.1.2 Additional Information

This material is a fine dust and inhalation should be avoided.

### 2.2 Label Elements

No Precautionary Statements are required on the label.

### 2.3 Other Hazards

Nuisance dust. Do not breathe dust. May cause mild skin, eye and respiratory system irritation. Wash thoroughly after handling. If irritation persists, seek medical advice.

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## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

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### 3.2 Substances

Hazardous Ingredients	% [weight]	CAS No. EC No. Index No.	SCL, M-Factors, ATE	Classification	H / EUH Code(s)
Clinoptilolite	>90%	12173-10-3 687-562-6	-	Not hazardous	-

This material would also fall under CAS No. 1318-02-1 being a natural zeolite. The classification for this material is the same as for CAS No. 12173-10-3.

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**SECTION 4 – FIRST AID MEASURES**

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**4.1 Description of First Aid Measures**

**SKIN** Wash contaminated skin with soap and water. Remove contaminated clothing and shoes and wash before reuse. If irritation persists, seek medical attention.

**EYE** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation persists.

**INHALATION** Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt, or waistband.

**INGESTION** Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Never give anything by mouth to an unconscious person.

**4.2 Most important symptoms and effects, both acute and delayed**

**SKIN** No known significant effect or critical hazards.

**EYE** No known significant effect or critical hazards. May cause mild irritation.

**INHALATION** No known significant effect or critical hazards. May cause respiratory irritation.

**INGESTION** No known significant effect or critical hazards.

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**SECTION 5 – FIRE FIGHTING MEASURES**

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**5.1 Extinguishing Media**

**SUITABLE** Water fog, foam, extinguishing powder, or carbon dioxide.

**NOT SUITABLE** None known.

**5.2 Special Hazards arising from the Substance or Mixture**

**HAZARDS FROM THE SUBSTANCE / MIXTURE** Clinoptilolite (zeolite) is non-hazardous and may be allowed to enter a waterway, sewer or drain.

**HAZARDOUS THERMAL DECOMPOSITION PRODUCTS** None known.

**5.3 Advice for Firefighters**

**SPECIAL PRECAUTIONS FOR FIREFIGHTERS** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS** Fire-fighters should wear appropriate protective equipment to prevent inhalation of dust particles.

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**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

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**6.1 Personal precautions, protective equipment, and emergency procedures**

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering.

**6.1.1 For non-emergency personnel**

Wear appropriate personal protective equipment. Collect and dispose of as soon as possible.

**SKIN** General purpose non-permeable gloves and overalls.

**FACE / EYES** Safety goggles.

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**CLOTHING** No special requirements. Wash clothing thoroughly if contaminated.

**VENTILATION** If ventilation is poor use a OSHA approved dust mask or self-contained breathing apparatus.

#### 6.1.2 For emergency personnel

Wear appropriate personal protective equipment. Collect and dispose of as soon as possible.

**SKIN** General purpose non-permeable gloves and overalls.

**FACE / EYES** Safety goggles.

**CLOTHING** No special requirements. Wash clothing thoroughly if contaminated.

**VENTILATION** If ventilation is poor use an OSHA approved dust mask or self-contained breathing apparatus.

### 6.2 Environmental Precautions

Clinoptilolite (without other residues) is not a hazardous waste and may be combined with soil or drained to the sewage.

### 6.3 Method and material for containment and cleaning up

#### 6.3.1 Containment procedure

Sweep or vacuum up in such a way as to avoid dust.

#### 6.3.2 Clean-up procedure

Dispose of in accordance with local regulations.

#### 6.3.3 Additional Information

See SECTION 13 for disposal considerations.

### 6.4 Reference to other sections

See SECTION 13 for disposal considerations.

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## SECTION 7 – HANDLING AND STORAGE

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### 7.1 Precautions for Safe handling

#### 7.1.1 Recommendations for safe handling and storage

Do not eat, drink or smoke where this material is stored. Keep in the original container and keep tightly closed when not in use.

#### 7.1.2 Advice on general occupational hygiene

Put on appropriate personal protective equipment (see SECTION 8). Do not eat, drink, or smoke when working with this material. Wash hands and face before eating, drinking, or smoking. Do not get in eyes. Avoid skin contact as much as possible.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in the original container protected from sources of ignition or direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, food and drink. Keep container tightly closed and sealed until ready to use. Do not store in unlabelled containers.

Incompatible Materials: Strong oxidizing agents, concentrated acids

Packaging Material: Use original container.

### 7.3 Specific end use(s)

Not applicable.

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**SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION**


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**8.1 Control Parameters**

The DNEL (Derived No-Effect Level) for humans by inhalation, ingestion and dermal routes of exposure and the PNEC (Predicted No-Effect Concentration) for environmental exposure given below are not intended to be directly used for setting workplace or general population exposure limits. Due to differences in calculation methodology the DNEL will tend to be lower (sometimes significantly) than any corresponding health based-OEL for that chemical substance. Further, although DNELs (and PNEC's) are an indication of setting risk measures, it should be recognized that these limits do not have the same regulatory application as officially endorsed government OELs.

No DNEL or PNEC information is available for Clinoptilolite / Zeolite.

Ingredient (CAS No,)	Route of exposure	Exposure Limit	
		ACGIH TLV	OSHA PEL
Nuisance dust	Inhalation	10mg/m <sup>3</sup> (inhalable particles)	5mg/m <sup>3</sup> (respirable fraction) 15mg/m <sup>3</sup> (total dust)

**8.2 Exposure Controls****8.2.1 Appropriate engineering controls**

Ensure adequate ventilation. Provide local exhaust ventilation or other engineering controls if the potential for nuisance dust generation exists. If ventilation is poor use a self-contained breathing apparatus.

**8.2.2 Personal Protection**

**Skin** General purpose non-permeable gloves and overalls.

**Face / Eye** Avoid eye contact. Do not touch or rub eyes after contact with product. Wash hands thoroughly with soap and water first.

**Inhalation** Use an OSHA approved dust mask and work in a well-ventilated area.

**Ingestion** Wash hands thoroughly with soap and water after using this product. Keep away from children.

**Thermal** None required when used as instructed.

**Other** Always wash hands with soap and water after use.

**8.2.3 Environmental Protection**

Clinoptilolite (without other residues) is not a hazardous waste and may be combined with soil or drained to the sewage.

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**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**


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**9.1 information on physical and chemical properties**

Physical State	Powder
Colour	Beige / Pale green / Pale Pink
Odour	Not determined
Melting point / Freezing point (°C)	No data available.
Boiling point, initial and range (°C)	No data available.
Flammability	Not flammable.
Explosion / Flammability limits	No data available.
Flash point (°C), closed cup	No data available.
Auto-ignition temperature (°C)	No data available.
Decomposition temperature (°C)	No data available.

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pH	No data available.
Kinematic Viscosity (at 23°C)	Not applicable.
Solubility	Insoluble.
Partition co-efficient : n-octanol / water	No data available.
Vapour pressure	No data available.
Density and/or Relative density (at 23°C)	0.4 kg/L (0.25 kg/L as packed)
Relative Vapour density	No data available.
Particle characteristics	Typical size by wet particle size distribution is D10: 1.5µ, D50: 5µ, and D90: 10µ.

## 9.2 Other information

### 9.2.1 Information with regards to physical Hazard Classes

No additional information available.

### 9.2.2 Other Safety Characteristics

No additional information available.

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## SECTION 10 – STABILITY AND REACTIVITY

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### 10.1 Reactivity

Unlikely to react under normal conditions of storage and use.

### 10.2 Chemical Stability

Stable under recommended storage conditions.

### 10.3 Possibility of Hazardous Reactions

Hazardous reactions are unlikely during normal conditions of storage and usage.

### 10.4 Conditions to Avoid

None known.

### 10.5 Incompatible Materials

Reactive or incompatible with the following materials: Strong oxidizing agents, concentrated acids

### 10.6 Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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## SECTION 11 – TOXOLOGICAL INFORMATION

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### 11.1 Information on Hazard Classes

No information available as ingredients not classified as hazardous. Based on human experience the material is a mild irritant.

### 11.2 Information on Other Hazards

#### 11.2.1 Endocrine Disrupting Properties

Not listed as an endocrine disruptor on EDL List I (identified) List II (under evaluation for) or List III (has ED properties).

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### 11.2.2 Other Information

No additional information available.

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## SECTION 12 – ECOLOGICAL INFORMATION

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### 12.1 Toxicity

Not classified as hazardous.

Please see Section 8.1 for PNECs on individual ingredients.

### 12.2 Persistence and Biodegradability

No data available.

### 12.3 Bioaccumulative Potential

No data available.

### 12.4 Mobility in Soil

Not readily mobile in soil.

### 12.5 Results of PBT and vPvB assessment

No PBT or vPvB assessment has been carried out.

### 12.6 Endocrine Disrupting Properties

No data available. Not listed as an endocrine disruptor.

### 12.7 Other Adverse Effects

None known.

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## SECTION 13 – DISPOSAL CONSIDERATIONS

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### 13.1 Waste Treatment Methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.

Contain and dispose of in accordance with local regulations.

**EWG 01 04 08 WASTE RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS:** wastes from physical and chemical processing of non-metalliferous minerals; waste gravel and crushed rocks other than those mentioned in 01 04 07

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## SECTION 14 – TRANSPORT INFORMATION

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Since this product is NOT CLASSIFIED AS HAZARDOUS, there is no applicable UN Number (14.1), Proper Shipping Name (14.2), Transport Hazard Class (14.3) or Packing Group (14.4).

### 14.5 Environmental Hazards

Not classified as hazardous to the environment.

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**14.6 Special Precautions for User**

None known.

**14.7 Maritime Transport in Bulk According to IMO instruments**

Not applicable.

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**SECTION 15 – REGULATORY INFORMATION**

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**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****REACH EC1907/2006 Annex XIII, XIV, XVII** The substance is not listed / not subject to restrictions.**International Agency for Research on Cancer (IARC)** The substance is listed as Group 3 (not classifiable) / not subject to restrictions.**Australia Inventory of Industrial Chemicals (AIIC)** The substance(s) is listed as 1318-02-1.**New Zealand Inventory (NZIoC)** The substance(s) is listed as 1318-02-1.**Canada Domestic Substances List (DSL) / Non-Domestic Substance List (NDSL)** This substance is listed as 1318-02-1 on the DSL.**United States Inventory (TSCA 8b)** The substance(s) in this product are not listed / not subject to restrictions.**California Proposition 65** The substance is not listed / not subject to restrictions.**Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Section 112® of the Clean Air Act (CAA)** The substance is not listed / not subject to restrictions.**15.2 Chemical Safety Assessment**

Not yet done.

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**SECTION 16 – OTHER INFORMATION**

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Changes from previous version:

Date changed	Section	Changes
2023.01.12		Re-evaluated hazard after additional training and compliance with Regulation (EU) 2020/878. Only the format of the document has changed.
2020.11.19		Initial document

Abbreviations used:

<b>ADN</b>	European Agreement concerning the International Carriage of Dangerous Goods on Inland Waterways
<b>ADR</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>ATE</b>	Acute Toxicity Estimate
<b>CAS No.</b>	Chemical Abstract Services Number
<b>DNEL</b>	Derived no-effect level
<b>EC3</b>	Effective concentration required to produce a three-fold increase in the stimulation index
<b>EC No.</b>	European Community Number
<b>ECHA</b>	European Chemicals Agency
<b>EWC</b>	European Waste Code

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<b>GCL</b>	Generic concentration limit
<b>GLP</b>	Good Laboratory Practice
<b>HSNO</b>	Hazardous Substances and New Organisms Act
<b>IATA</b>	International Air Transport Association
<b>IBC</b>	International Bulk Container
<b>ICAO</b>	International Civil Aviation Authority
<b>IMDG</b>	International Maritime Dangerous Goods
<b>IMO</b>	International Maritime Organization
<b>LD50</b>	Lethal dose to 50% of test population
<b>LLNA</b>	Local lymph node assay
<b>LT</b>	Long term
<b>mg/kg bw</b>	milligrams per kilogram of body weight
<b>mg/kg dwt</b>	milligrams per kilogram dry weight
<b>NOAEL</b>	No observed adverse effect level
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OEL</b>	Occupational Exposure Limit
<b>PBT</b>	Persistent, Bioaccumulative and Toxic
<b>PNEC</b>	Predicted no-effect concentration
<b>RID</b>	European Agreements Concerning the International Carriage of Dangerous Goods by Rail
<b>SCBA</b>	Self-contained breathing apparatus
<b>SCL</b>	Specific Concentration Limit
<b>ST</b>	Short term
<b>STOT-SE</b>	Specific target Organ Toxicity - Single Exposure
<b>UN</b>	United Nations
<b>vPvB</b>	very Persistent and very Bioaccumulative