Purge ALL/Purge All Plus

Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

1.1. Product identifie Trade name: Zeolite (Chabazite or Clinoptilolite), Purge All, Purge All Plus Other product identifiers: AZUB, AZLB-Ca, AZLB-Na (Bowie Chabazite), NM-Ca (Winston Clino), NV-Na (Ash Meadows Clino) CAS Number: 12173-10-3 EC number: 215-283-8 1.2. Relevant identified uses of the substance or mixture and uses advised against No further relevant information available Application of the substance/the mixture: Molecular Sieve, Cation Exchange Media, Dessicant Uses advised against: Not FDA approved for human consumption 1.3. Supplier Details: Manufacturer: St. Cloud Mining Co., Inc. Full address: 761 St. Cloud Rd. • Winston, NM 87943 EC REP (575) 743-5215 · Fax: (575) 743-3333 · www.stcloudmining.com Supplier: Argen Corporation Supplier address: 5855 Oberlin Drive · San Diego, CA 92121 1.4 Emergency telephone number: (575) 743-5215 SECTION 2: HAZARDS IDENTIFICATION 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 The product is not classified as hazardous according to the Globally Harmonized System (GHS). The product is not classified as hazardous according to OSHA GHS regulations within the United States The substance is not classified as hazardous according to the CLP regulation. Additional information: Long term inhalation of product dust may be harmful. There are no other hazards not otherwise classified that have been identified 2.2. Label elements Labelling according to Regulation (EC) No 1272/2008: Not Regulated Hazard pictograms: Not Regulated Signal word: Not Regulated Hazard-determining components of labelling: None Hazard statements: Not Regulated Precautionary statements: Not Regulated Additional information: Safety data sheet available on request. 2.3. Other hazards Results of PBT and vPvB assessment PBT: Not applicable vPvB: Not applicable SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS 3.1 Substances CAS No. Description: 12173-10-3 Clinoptilolite Zeolite/ Potassium, Calcium, Sodium Aluminosilicate Identification number(s) FC number: 215-283-8 Additional information: Alternative CAS Number: 1318-02-1

Impurities and stabilising additives:

Present below 0.1%: guartz/crystalline silica CAS: 14808-60-7 EINECS: 238-878-4: Quartz (SiO2)

SECTION 4: FIRST AID MEASURES 4.1 . Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints. Provide oxygen treatment if affected person has difficulty breathing

Carc 1A H350

After skin contact: Brush off loose particles from skin. Immediately wash with water and soap and rinse thoroughly If skin irritation is experienced, consult a doctor.

After eye contact: Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting: call for medical help immediatelv

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

Coughing

Nausea in case of ingestion.

Gastric or intestinal disorders when ingested.

Hazards: Coughing and wheezing from inhalation of large quantities of dust. 4.3. Indication of any immediate medical attention and special treatment needed

No further relevant information available

SECTION 5: FIRE-FIGHTING MEASURES

5.1 . Extinguishing media

Suitable extinguishing agents: The product is not flammable Use fire extinguishing methods suitable to surrounding conditions

For safety reasons unsuitable extinguishing agents: None. 5.2. Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or mixture: No further relevant information available 5.3 Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device. Wear fully protective suit. Additional information: No further relevant information available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation. Avoid formation of dust. Avoid breathing dust. Use personal protective equipment as

required. 6.2. Environmental precautions

- No special precautions required.
- 6.3. Methods and material for containment and cleaning up
- Pick up mechanically. Dispose contaminated material as waste according to section 13.

6.4 Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handl

Use only in well ventilated areas. Prevent formation of dust. Any unavoidable deposit of dust must be regularly removed.

- Information about fire and explosion protection: No special measures required 7.2. Conditions for safe storage, including any incompatibilities
 - Storage: Requirements to be met by storerooms and receptacles: Protect from humidity and water. Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles 7.3. Specific end use(s)

No further relevant information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION Additional information about design of technical facilities: No further data; see section 7. 8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:

12173-10-3 Clinoptilolite Zeolite/ Potassium, Calcium, Sodium Aluminosilicate OSHA Permissible Exposure Limit (PEL) (USA) Limit Value: 15 mg/m³ (Particulates Not Otherwise Regulated (Total Dust))

- DNELs: No further relevant information available
- PNECs: No further relevant information available. 8.2. Exposure controls
- Personal protective equipment
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Avoid contact
- with the eyes. Avoid breathing dust. Respiratory protection:
- Not required under normal conditions of use. For spills, respiratory protection may be advisable. NIOSH or EU approved dust respirator should be used for operations generating dust. Particulate mask should filter at least 99% of airbo particles.

Protection of hands Protective aloves



Wear gloves for the protection against mechanical hazards according to NIOSH or EN 388. Eve protection

 $\langle \bullet \bullet \rangle$ safety glasses

> Body protection: Protective work clothing. Limitation and supervision of exposure into the environment: No further relevant information available nent measures: See Section 7 for additional information. No further relevant information available. Risk manac

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES 9.1. Information on basic physical and chemical properties

General Information

ucherar information.			
Form:	Pulverized Rock (Granulate and Powder)	Colour:	White to off-white; Greenish; Yellowish; Reddish; Tan
Odour:	Odourless	Odour threshold:	Not determined.
pH-value:	Not applicable	Melting point/Melting range:	982 °C (1800 °F) (approximate)
Boiling point/Boiling range:	Not determined.	Flash point:	Not applicable.
Flammability (solid, gaseous):	Not applicable.	Auto/Self-ignition temperature:	Not applicable.
Decomposition temperature:	Not determined.	Self-igniting:	Product is not self-igniting.
Danger of explosion:	Product does not present an explosion hazard.	Explosion limits Lower:	Not determined.
Explosion limits Upper	Not determined.	Vapour pressure:	Not applicable.
Density:	2,2 - 2,4 g/cm ³ (18,359 - 20,02 lbs/gal)	Relative density	Not determined.
Vapour density	Not applicable.	Evaporation rate	applicable.
Evaporation rate	Not applicable.	Solubility in/Miscibility with water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):	Not determined.	Viscosity: Dynamic/ Kinematic:	Not applicable.
9.2 Other information: No further relevant information available.			

SECTION 10: STABILITY AND REACTIVITY 10.1. Reactivity: No further relevant information available

10.2. Chemical stability

- Thermal decomposition/conditions to be avoided: No decomposition if used and stored according to specifications 10.3. Possibility of hazardous reactions
- As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.
- 10.4. Conditions to avoid: Prevent formation of dust.
- 10.5. Incompatible materials: No further relevant information available 10.6. Hazardous decomposition products: Possible in traces

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

- Acute toxicity: Based on available data, the classification criteria are not met.
- LD/LC50 values relevant for classification:

Oral LD50 >5000 mg/kg (rat)

- Primary irritant effect:
- Skin corrosion/irritation: Based on available data, the classification criteria are not met. Serious eve damage/irritation: Based on available data, the classification criteria are not met. Respiratory or skin sensitisation: Based on available data, the classification criteria are not met. Acute effects (acute toxicity, irritation and corrosivity): None. Repeated dose toxicity: Repeated or long-term inhalation of product dusts may cause pulmonary disease. CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
- Germ cell mutagenicity: Based on available data, the classification criteria are not met. Carcinogenicity: Based on available data, the classification criteria are not met. Reproductive toxicity: Based on available data, the classification criteria are not met STOT-single exposure: Based on available data, the classification criteria are not met.
- STOT-repeated exposure: Based on available data, the classification criteria are not met. Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

- 12.1. Toxicity Aquatic toxicity: No further relevant information available.
- 12.2. Persistence and degradability: No further relevant information available. 12.3. Bioaccumulative potential: No further relevant information available.
- 12.4. Mobility in soil: No further relevant information available Additional ecological information

- General notes: Generally not hazardous for water
- 12.5. Results of PBT and vPvB assessment PBT: Not applicable
- vPvB: Not applicable
- 12.6. Other adverse effects
- No further relevant information available

SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods
 - Recommendation: Smaller quantities can be disposed of with household waste. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Uncleaned packaging:

egislation specific for the substance or mixture

ndation: Disposal must be made according to official regulations

SECTION 14: TRANSPORT INFORMATION

14.1 UN-Nur

- DOT, ADR, IMDG, IATA: Not Regulated
- 14.2 UN proper shipping name DOT, ADR, IMDG, IATA: Not Regulated
- 14.3 Transport hazard class(es)
- DOT, ADR, IMDG, IATA Class: Not Regulated
- 14.4 Packing group DOT, ADR, IMDG, IATA: Not Regulated 14.5 Environmental hazards
- Marine pollutant: No
- 14.6 Special precautions for user
- Not applicable

15.1. Safety, health and en

SARA

Canada

United States (USA)

Proposition 65 (California):

14808-60-7 Quartz (SiO2)

Carcinogenic Categories

Directive 2012/18/EU

Abbreviations and acronyms

DOT: US Department of Transportation

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

SVHC: Substances of Very High Concern

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Safety Data Sheets, Individual Manufacturers

LD50: Lethal dose, 50 percent

Sources

home.do)

SDS Prepared by:

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Website: www.chemtelinc.com

ChemTel Inc

PNEC: Predicted No-Effect Concentration (BEACH)

IATA: International Air Transport Association

SECTION 16: OTHER INFORMATION

International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable

ntal requia

Section 355 (extremely hazardous substances): Substance is not listed.

Chemicals known to cause reproductive toxicity for females: Substance is not listed.

Chemicals known to cause reproductive toxicity for males: Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health): Substance is not listed.

Substances of very high concern (SVHC) according to REACH, Article 57: Substance is not listed.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product

ADB: Accord européen sur le transport des marchandises dangereuses par Boute (European Agreement concerning the

Website, US EPA Substance Registry Services (http://http://ofmpub.epa.gov/sor_internet/registry/substreg/home/overview/

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 1978-0-470-07488-6 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN:978-0-07-176923-5.

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Chemicals known to cause developmental toxicity: Substance is not listed.

IARC (International Agency for Research on Cancer): Substance is not listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out

TLV (Threshold Limit Value established by ACGIH): Substance is not listed.

Section 313 (Specific toxic chemical listings): Substance is not listed.

TSCA (Toxic Substances Control Act): Substance is listed

Chemicals known to cause cancer: Present in trace quantities

EPA (Environmental Protection Agency): Substance is not listed.

Canadian Domestic Substances List (DSL): Substance is not listed. Canadian Ingredient Disclosure list (limit 0.1%): Substance is not listed. Canadian Ingredient Disclosure list (limit 1%): Substance is not listed.

Named dangerous substances - ANNEX I: Substance is not listed.

Other regulations, limitations and prohibitive regulations

features and shall not establish a legally valid contractual relationship.

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

Website, European Chemicals Agency (http://http://echa.europa.eu/)

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website, Chemical Abstracts Registry, American Chemical Society (https://www.cas.org)

FINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

UN "Model Regulation": Not applicable

SECTION 15: REGULATORY INFORMATION