

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name                      Molecular Sieves

CAS number                        See section 3

Synonyms                          Bead/Extrudate

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

Identified uses                      Laboratory Chemicals

#### 1.3 Details of the supplier of the safety data sheet

Company                              Lab Alley, LLC  
12501 Pauls Valley Road  
Austin, Texas 78737  
U.S.A.

Telephone                            512-668-9918

Fax                                      512-886-4008

#### 1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Not a hazardous substance or mixture.

#### 2.2 GHS Label elements, including precautionary statements

None Required.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

The product will react with water and release heat. Prolonged contact can cause burns to moist body tissues. Zeolite is a mineral, composed of silicates and oxides of various metals, which exhibits different properties from a simple mixture of the component molecules. Representative Zeolite materials are less irritating and have lower acute and chronic toxicity than the component molecules. The primary health hazard of this product is associated with heat generated upon contact with water.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Zeolites	-	1318-02-1	>= 80 - <= 100%
Magnesium aluminium silicate	-	1217 4-11-7	< 10 %
Montmorillonite	-	1318-93-0	< 10 %
Kaolin	-	1332-58-7	< 10 %
Sepiolite (Mg <sub>4</sub> (OH) <sub>2</sub> (Si <sub>2</sub> O <sub>5</sub> ) <sub>3</sub> ·6H <sub>2</sub> O)	-	63800-37-3	< 10 %

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

<b>General advice</b>	Show this sheet to a doctor if medical advice is needed.
<b>If inhaled</b>	If inhaled, remove victim to fresh air.
<b>In case of skin contact</b>	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse.
<b>In case of eye contact</b>	Immediately flush eye(s) with plenty of water.
<b>If swallowed</b>	If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

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

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Statements and Supplemental Information if applicable) and Section 11 (Toxicology Information) of this SOS.

### 4.3 Indication of any immediate medical attention and special treatment needed

Unless otherwise noted in Notes to Physician, no specific treatment noted; treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** water spray, dry chemical, foam, carbon dioxide.

**Unsuitable extinguishing media** None identified.

## 5.2 Specific hazards arising from the substance or mixture

The product will react with water and release heat. Prolonged contact can cause burns to moist body tissues.

## 5.3 Special protective equipment and precautions for firefighters

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand/ NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

## 5.4 Further information

**Flash Point** Not applicable

**Autoignition Temperature** No data available

### Explosion limits

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No data available

**Sensitivity to Static Discharge** No data available

### NFPA

Not rated by NFPA.

## SECTION 6: Accidental release measures

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

Appropriate personal protective equipment is set forth in Section 8.

### 6.2 Environmental precautions

Do not release into environment.

### 6.3 Methods and materials for containment and cleaning up

Prevent further leakage or spillage if you can do so without risk. Ventilate the area. Avoid dust formation and dispersal of dust in the air. Sweep up and shovel into suitable properly labeled containers for prompt disposal.

Possible fall hazard - floor may become slippery from leakage/spillage of product. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

### 6.4 Reference to other sections

Appropriate personal protective equipment is set forth in Section 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid breathing dust. Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin, and clothing.

#### Hygiene measures

This material is not hazardous under normal storage conditions; however, material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage. Store away from moisture and heat to maintain the technical properties of the product. Material recommended for re-packaging: high density polyethylene (HDPE), polypropylene (PP), polytetrafluoroethylene (PTFE), fiberboard with moisture barrier.

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

#### Storage conditions

Store away from moisture to maintain the technical properties of the product.

#### Incompatibilities

Water, Strong acids, Strong bases, hydrofluoric acid.

## SECTION 8: Exposure controls/personal protection

### 8.1 Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Kaolin	Total dust.	15 mg/m <sup>3</sup>
Kaolin	Respirable fraction.	5 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values

Component	Type	Value
Kaolin	Respirable fraction.	2 mg/m <sup>3</sup>
Zeolites	Respirable fraction.	1 mg/m <sup>3</sup>

#### US. NIOSH: Pocket Guide to Chemical Hazards

No additional information.

#### Biological occupational exposure limits

No additional information.

### 8.2 Exposure controls

#### Appropriate engineering controls

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

## Personal protective equipment

### Eye/face protection

Use good industrial practice to avoid eye contact.

### Skin protection

Minimize skin contamination by following good industrial hygiene practice. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

### Body Protection

Wear appropriate protective clothing.

### Respiratory protection

Avoid breathing dust. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

### Control of environmental exposure

Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical State	Solid beads
Appearance	Off-white
Odor	Odorless
Odor Threshold	No data available
pH	8-11
Melting Point/Range	No data available
Boiling Point/Range	No data available
Evaporation Rate	No data available
Flammability (solid)	No data available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Density	0.63 - 0.85 g/cm <sup>3</sup>
Solubility	Insoluble in water

Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No data available
Decomposition Temp	No data available
Viscosity	No data available
Molecular Formula	No data available
Molecular Weight	No data available
VOC Content(%)	No data available
Oxidizing properties	No data available

## 9.2 Other safety information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

### 10.2 Chemical stability

This material is chemically stable under normal and anticipated storage, handling and processing conditions.

### 10.3 Possibility of hazardous reactions

None known.

### 10.4 Conditions to avoid

Store protected from moisture (to maintain the technical properties of the product) See HANDLING AND STORAGE section of this MSDS for specified conditions.

### 10.5 Incompatible materials

Water, Hydrofluoric acid, Strong acids, Strong bases.

### 10.6 Hazardous decomposition products

None.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

#### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
	No deaths occurred. (rat) LDO > 2,000 mg/kg.	No deaths occurred. (rabbit) LDO > 2,000 mg/kg.	No deaths occurred. (rat) 4 h LCO > 3.35 mg/l.

#### Skin corrosion/irritation

Not irritating.

**Serious eye damage/eye irritation**

Causes mild eye irritation.

**Respiratory or skin sensitization**

Not a sensitizer. Guinea pig maximization test. No skin allergy was observed.

**Germ cell mutagenicity**

No genetic changes found in multiple experiments.

**Carcinogenicity**

Quartz and Kaolin are both associated with cancer.

**Specific target organ toxicity - single exposure**

No data available.

**Specific target organ toxicity - repeated exposure**

urinary bladder(ingestion), kidney(ingestion), respiratory tract(inhalation).

**Reproductive toxicity**

No additional information.

**Chronic effects**

No additional information.

**11.2 Additional Information**

No additional information.

**SECTION 12: Ecological information**

**12.1 Toxicity**

**Data for Zeolites (1318-02-1):**

Aquatic toxicity data:

No effect up to the limit of solubility. *Poecilia reticulata* (guppy) 96 h LC50 = 1,800 - 3,200 mg/l

Aquatic invertebrates:

No effect up to the limit of solubility. *Daphnia magna* (Water flea) 48 h EC50 > 100 mg/l (Nominal concentration, Water accommodated fraction was tested.)

Algae:

No effect up to the limit of solubility. *Desmodesmus subspicatus* (green algae) 72 h ErC50 > 100 mg/l (Nominal concentration, Water accommodated fraction was tested.)

Chronic toxicity to fish:

No effect up to the limit of solubility. *Pimephales promelas* (fathead minnow) 30 d NOEC > 86 mg/l

Chronic toxicity to aquatic invertebrates:

No effect up to the limit of solubility. *Daphnia magna* (Water flea) 21 d NOEC = 32 mg/l (Nominal concentration)

**Data for Kaolin (1332-58-7):**

Aquatic toxicity data:

Practically nontoxic. *Oncorhynchus mykiss* (rainbow trout) 96 h LC50 > 100 mg/l

Aquatic invertebrates:

Toxic. *Daphnia magna* (Water flea) 48 h EC50 > 1 mg/l

Algae:

Practically nontoxic. *Scenedesmus subspicatus* 72 h EC50 > 100 mg/l

**Data for Sepiolite (Mg<sub>4</sub>(OH)<sub>2</sub>(Si<sub>2</sub>O<sub>5</sub>)<sub>3</sub>·6H<sub>2</sub>O) (63800-37-3):**

Aquatic toxicity data:

Practically nontoxic. *Carassius auratus* (goldfish) 96 h LC50 > 14,000 mg/l

Practically nontoxic. *Salmo gairdneri* 96 h LC50 = 1,254.44 mg/l

Algae:

Practically nontoxic. Algae IC50 > 300 mg/l

**12.2 Persistence and degradability**

No information available.

**12.3 Bio accumulative potential**

No information available.

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

No information available.

**12.6 Endocrine disrupting properties**

No information available.

**12.7 Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1 Waste Disposal Methods**



Where possible recycling is preferred to disposal or incineration. If recycling is not an option, incinerate or dispose of in accordance with federal, state, and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

## SECTION 14: Transport information

### DOT (US)

UN Number	Not regulated
Proper Shipping name	Not regulated
Hazard Class	None
Packaging Group	Not regulated
Technical name	Molecular Sieves

### IMDG

UN Number	Not regulated
Proper Shipping name	Not regulated
Hazard Class	None
Packaging Group	Not regulated
Technical name	Molecular Sieves

### IATA

UN Number	Not regulated
Proper Shipping name	Not regulated
Hazard Class	None
Packaging Group	Not regulated
Technical name	Molecular Sieves

## SECTION 15: Regulatory information

### US federal regulations

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**  
Not listed.

**SARA 304 Emergency release notification**  
Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous**

Not listed.

**SARA 313 (TRI reporting)**

Not listed.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not listed.

**Safe Drinking Water Act**

Not listed.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Not listed.

**US state regulations**

**US. Massachusetts RTK - Substance List**

Not listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Kaolin, CAS 1332-58-7

**US. Pennsylvania Worker and Community Right-to-Know Law**

Zeolites, CAS 1318-02-1

Magnesium aluminium silicate, CAS 12174-11-7

Montmorillonite, CAS 1318-93-0

Kaolin, CAS 1332-58-7

Sepiolite (Mg<sub>4</sub>(OH)<sub>2</sub>(Si<sub>2</sub>O<sub>5</sub>)<sub>3</sub>·6H<sub>2</sub>O), CAS 63800-37-3

**California Proposition 65**

Magnesium aluminium silicate, CAS 12174-11-7

**SECTION 16: Other information**

Date of Issue: 6/2/2025

**SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.