

MATERIAL SAFETY DATA SHEET

MOLECULAR SIEVE 4A

Emergency Telephone Number: 800-424-9300

The following information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm the no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. (Unless noted to the contrary, the technical information applies only to pure products.)

1. IDENTIFICATION

1.1 Product Name:	Molecular Sieve 4A
1.2 Chemical Name:	Molecular Sieve
1.3 Synonyms:	Aluminosilicate 4 A, Zeolite 4A
1.4 Trade Names:	None
1.5 Formula:	$\text{Na}_2\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot x\text{H}_2\text{O}$
1.6 Molecular Weight	285
1.7 CAS Number	1344-00-9
1.8 EINECS Number	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name:	Sodium aluminum silicate
Percent	100%
CAS Number:	1344-00-9
ACGIH TLV (1992-1993):	Not established
OSHA Pel:	Not established
Niosh (RTECS) Number:	1000369SS

3. HAZARD IDENTIFICATION

4. FIRST AID MEASURES

4.1 Routes of Exposure:	Inhalation? Skin? Ingestion?
4.2 Effects:	May cause irritation or caustic burns on skin in presence of moisture.
4.2.1 Inhalation:	Yes
4.2.2 Eyes:	Yes
4.2.3 Skin:	No
4.2.4 Ingestion:	No

4.3 Regulatory/Carcinogenicity	
NTP?:	No
IARC?:	No
OSHA?:	No

4.4 Medical Conditions Aggravated by Exposure:	Breathing of dust may aggravate asthma
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4.5 First Aid: 4.5.1 Inhalation: Remove to fresh air. Consult a physician. 4.5.2 Eye Contact: Flush with plenty of water for at least 15 minutes. Consult a physician. 4.5.3 Skin Contact: Flush with plenty of water for at least 15 minutes. Consult a physician. 4.5.4 Ingestion: If swallowed, drink two glasses of water. Induce vomiting. Consult a physician. Never give anything by mouth to an unconscious person. 4.6 General Recommendation: Avoid breathing dust or contact with skin. Avoid material contact with water. 4.7 Medical Appendix: In case of skin burns use procedure for caustic burns.

5. FIREFIGHTING MEASURES
5.1 Common Extinguishing Methods: Use media appropriate for surrounding fire. 5.2 Inappropriate Extinguishing Methods: Unknown. 5.3 Specific Hazards: Used product may contain products of a hazardous nature. Inform fire fighters of hazards of retained chemicals. 5.4 Protective Measures in Case of Intervention: When exposed to water, product will get hot. Flood with water to reduce to safe temperature. 5.5 Other Precautions: None

6. ACCIDENTAL RELEASE MEASURES
6.1 Individual and Collective Precautions: Wear suitable personal protective equipment. 6.2 Cleaning Methods: Sweep up, minimizing dusting and place in appropriate container. Dispose in accordance with all local, state and federal regulations. 6.3 Precautions for Protecting the Environment: Solid waste disposal.

7. HANDLING AND STORAGE
7.1 Handling: Wear suitable personal protective equipment. Avoid dusting. 7.2 Storage: Store in cool, dry, well-ventilated location. 7.3 Packaging: Keep container closed. 7.4 Other Precautions: Use good work hygiene practices. Wash thoroughly after use and before eating, drinking or smoking. Vacuum up any dust. Launder clothing before reuse.

8.EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Engineering Controls: 8.2 Respiratory Protection: Niosh approved dust mask 8.3 Hand Protection: Rubber/Plastic gloves 8.4 Eye Protection: Safety glasses/goggles 8.5 Skin Protection: Wear adequate protective equipment to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance: Light tan spherical beads.	9.2 Odor: No odor
9.3 PH: N/A	9.4 Boiling Point/Range: N/A
9.5 Melting Point/Range: N/A	9.6 Flash Point: N/A
9.7 Flammability: N/A	9.8 Autoignition Temperature: None
9.9 Danger of Explosion: None	9.10 Combustible Characteristics: N/A
9.11 Vapor Pressure: N/A	9.12 Vapor Density (Air=1): N/A
9.13 Specific Gravity (H ₂ O=1): Varies	9.14 Solubility: Water: Insoluble Other Solvents: N/A Lipid Solubility: N/A
9.15 Viscosity: N/A	9.16 Decomposition Temperature: N/A
9.17 Partition Coefficient p (n-octanol/water):	9.18 Other Data:

10. STABILITY AND REACTIVITY

10.1 Stability: Yes
10.2 Conditions to Avoid: Addition of water without flooding will generate heat and can cause skin burn.
10.3 Materials to Avoid: No information available.
10.4 Hazardous Decomposition Products: none
10.5 Other Information:

11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity:	
11.1.1 LD50-oral	No Information Available
11.1.2 LD50-skin	No Information Available
11.1.3 LD50-inhalation	No Information Available
11.1.4 Irritation (skin, eyes):	No Information Available

11.1.5 Sensitization:	N/A
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11.2 Chronic Toxicity: Acute: Eye, Skin and respiratory tract irritation.

Inhalation: Chronic: The drying action of this product can cause irritation of the mucous membranes of the nose and throat and irritation of the skin. Avoid prolonged breathing of dust.

12. EXOTOXICOLOGICAL INFORMATION

12.1 Acute Toxicity:	
12.1.1 LC50 - fish:	No Information Available
12.1.2 LC50- daphnia:	No Information Available
12.2 Environmental Behavior:	
12.2.1 Mobility:	N/A
12.2.2 Persistence	N/A
12.2.3 Degradation:	N/A
Abiotic:	N/A
Biotic:	N/A
12.2.4 Potential for Bioaccumulation	N/A

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment: Dispose in accordance with all local, state, and federal regulations.

13.2 Packaging Treatment:

14. TRANSPORT

14.1 UN Number: None

14.2 Classification

Label Required: None

Not regulated for the following mode of transportation: DOT, IMO, IATA

Emergency response number: 24-Hour contact Chemtree 800-424-9300

15. REGULATORY INFORMATION

15.1 EEC Labeling:

15.2 NFPA/HMIS Labeling:

15.2.1 NFPA:

Fire: 0

Health: 1

Reactivity: 1

15.2.2 HMIS

Health: 1

Flammability: 0

Reactivity: 0

Personal Protection:

15.3 Authorized Limit Value:

15.3.1 TLV (ACGHIH) - TWA: NOT ESTABLISHED

15.3.2 PEL (OSHA)-PEL: NOT ESTABLISHED

15.3.3 Other:

15.4 Other Regulations:

16. OTHER INFORMATION

16.1 Edition Date: June 1995

16.2 Revision Number: 2

16.3 Updated: May 2005