SAFETY DATA SHEET
Molecular Sieve Type 4A

1. IDENTIFICATION
1.1. Product identifier
Product Name: Molecular Sieve, Types 4A, XH-7, & XH-9 (Powder, Beads or Pellets).
CAS Number: 70955-01-0
Synonyms: Zeolite, Na Zeolite, Na Molecular Sieve, Na A Zeolite

1.2. Relevant identified uses of substances and uses advised against
Identified Uses: Desiccant and adsorbent used with liquids and gases.

1.3. Details of the supplier of the safety data sheet
Company: Chem Source, Inc.
2751 E Chapman Ave., Suite 212
Fullerton, CA 92831
USA

Telephone: 714-701-9528
Fax: 714-701-9517

1.4. Emergency telephone number
Emergency phone: 714-369-8094

2. HAZARDS IDENTIFICATION
2.1. Classification of substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin Irritation 2: H315 Causes skin irritation.
Eye Irritation 2A: H319 Causes serious eye irritation.
Specific target organ toxicity 3: H335 May cause respiratory irritation.

2.2. Label elements
Pictogram:

Signal word: Warning

Hazard statements
H315 Causes skin irritation
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statements
P101 If medical advice is needed, Have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
2.3. Other hazards
Upon contact with water, this product generates considerable heat up to the boiling point of water.

3. COMPOSITION/INFORMATION ON INGREDIENTS
3.1. Substances
Formula: \(\text{Na}_{2}[(\text{AlO}_{2})_{2}((\text{SiO}_{2})_{2}x):x\text{H}_{2}\text{O}]\)
CAS No. 70955-01-0 Molecular sieves, 4A

4. FIRST AID MEASURES
4.1. Description of first aid measures
After inhalation:
Remove to fresh air. If unconscious, place patient in side position for transport.

After eye contact:
Immediately wash eyes with clean water while occasionally lifting eyelids. Do not rub eyes.

After skin contact:
Wash thoroughly with soap and water.

After swallowing:
Rinse mouth with water. Consult a physician.

4.2. Most important symptoms, both acute and delayed
4.3. Indication of any immediate medical attention and special treatment needed
   No additional relevant information available.

5. FIRE FIGHTING MEASURES
   5.1. Extinguishing media
         Extinguishing powder, foam or CO₂.
   5.2. Special hazards arising from the substance or mixture
         No data available.
   5.3. Advice for firefighters
         If necessary, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES
   6.1. Personal precautions, protective equipment and emergency procedures
         Use personal protection equipment. Avoid formation of dust. Ensure adequate ventilation.
   6.2. Environmental precautions
         No special measures required.
   6.3. Methods and material for containment and cleaning up
         Vacuum, sweep up or flush to sewer that is treated for suspended solids. Wet methods are preferred to minimize dust. If in beaded or pellet form, do not walk on beads or pellets as this may cause loss of balance or falling.
   6.4. References to other sections
         See Section 7 for safe handling.
         See Section 8 for information on personal protection equipment.
         See Section 13 for disposal information.

7. HANDLING AND STORAGE
   7.1. Precautions for safe handling
         Avoid prolonged exposure to nuisance dust. Avoid contact with skin and eyes. Provide adequate ventilation. When pouring into flammable liquids, properly ground containers to avoid static electricity spark.
   7.2. Conditions for safe storage, including any incompatibilities
         Hygroscopic material. Keep container tightly sealed in a dry, well ventilated area.
   7.3. Specific end uses(s)
         See Section 1.2.

8. EXPOSURE CONTROL/PERSONAL PROTECTION
   8.1. Control parameters
         Contains no substances with occupational exposure limits.
   8.2. Exposure controls
         General Hygiene: Wash exposed areas thoroughly after handling.
         Eye/Face protection: Safety glasses conforming to appropriate standards such as NIOSH.
Breathing Equipment: Use suitable respirator conforming to appropriate government standards for nuisance dusts.

Skin Protection: Wear long sleeves with closed wristlets. Wear close weave cotton or rubber gloves to avoid drying of skin.
Penetration Time of Glove Material (minutes): Not determined.

9. PHYSICAL AND CHEMICAL PROPERTIES
9.1. Information on basic physical and chemical properties
Appearance: Fine white powder or gray / tan beads or pellets of various sizes.
Odor: Odorless.
Odor Threshold: Not determined.
pH: 9.0 – 11.5
Melting Point: 2900 °F
Boiling Point: Not applicable.
Flash Point: No data available.
Evaporation Rate: No data available
Flammability (solid, gas): Not flammable.
Upper/Lower Flammability/Explosive Limits: Not applicable.
Vapor Pressure (mm Hg.): Not applicable.
Vapor Density: Not applicable.
Specific Gravity (water = 1.0): 2.1
Solubility in Water: Not soluble.
Partition Coefficient (n-octane/water): Not Applicable.
Auto-ignition Temperature: Not applicable.
Decomposition Temperature: Not determined.
Viscosity: Not applicable.
Explosive properties: Not applicable.
Oxidizing Properties: Not applicable.

9.2. Other information
No data available.

10. STABILITY AND REACTIVITY
10.1. Reactivity
No data available.
10.2. Chemical Stability
Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions
No data available.
10.4. Conditions to avoid
Hygroscopic substance, avoid moisture.
10.5. Incompatible materials
Strong acids or bases and oxidizing agents.
10.6. Hazardous decomposition products
None known.
11. TOXICOLOGICAL INFORMATION
   11.1. Information on toxicological effects
         Acute toxicity
            No known effects.
         Skin irritation or corrosion
            May cause irritation.
         Serious eye damage/eye irritation
            May cause irritation.
         Respiratory or skin sensitization
            No sensitizing effects known.
         Germ cell mutagenicity
            No data available.
         Carcinogenicity
            IARC: No component of this product is present at levels ≥ 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.
            NTP: No component of this product is present at levels ≥ 0.1% is identified as a probable, possible or confirmed human by carcinogen NTP.
            OSHA: No component of this product is present at levels ≥ 0.1% is identified as a probable, possible or confirmed human by carcinogen OSHA.
            ACGIH: No component of this product is present at levels ≥ 0.1% is identified as a probable, possible or confirmed human by carcinogen ACGIH.

12. ECOLOGICAL INFORMATION
   12.1. Toxicity
          No data available.
   12.2. Persistence and degradability
          No data available.
   12.3. Bioaccumulative Potential
          No data available.
   12.4. Mobility in soil
          No data available.
   12.5. Results of PBT and vPvB assessment
          PBT and vPvB assessment not available as chemical safety assessment not required or conducted.
   12.6. Other adverse effects
          None known.

13. DISPOSAL CONSIDERATIONS
   13.1. Waste treatment methods
          Insoluble and non-toxic. Land-fill in accordance with local, state and Federal regulations.

14. TRANSPORT INFORMATION
   14.1. USDOT information:

Revision 5
This material is not regulated as hazardous material for transportation.

14.2. TDG information:
This material is not regulated as hazardous material for transportation.

14.3. IATA information:
This material is not regulated as hazardous material for transportation.

15. REGULATORY INFORMATION

15.1. SARA
None of the components of this product are listed under SARA Sections 302, 313 to CERCLA.

15.2. TSCA
All the ingredients of this product are registered on the TSCA Chemical Substance Inventory.

15.3. CONEG
This product complies with the CONEG Regulations on Heavy Metal content.

15.4. Massachusetts Right To Know Components
No components are subject to the Massachusetts Right To Know Act.

15.5. New Jersey Right To Know Components
Molecular sieves, Type 4A CAS No.
70955-01-0

15.6. Pennsylvania Right To Know Components
Molecular sieves, Type 4A CAS No.
70955-01-0

15.7. California Prop. 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

15.8. WHMIS
This product is not controlled under Canadian WHMIS

15.9. DSL
This product is listed on the Canadian Substance List (DSL).

15.10. NDSL
This product is listed on the Canadian Non-Domestic Substance List (NDSL)

15.11. IECSC
All the ingredients of this product are listed on China’s IECSC.

15.12. AICS
All the ingredients of this product are listed on Australia’s AICS.

15.13. ENCS
All the ingredients of this product are listed on Japan’s ENCS.

15.14. NZIOC
All the ingredients of this product are listed on New Zealand’s NZIOC.

15.15. PICCS
All the ingredients of this product are listed on Philippines’ PICCS.

15.16. KECI
All the ingredients of this product are listed on Korea’s KECI.

15.17. NECSI
All the ingredients of this product are listed on Taiwan’s NECSI.

15.18. PIC
This product does not contain any chemicals listed in PIC regulation 649/2012.
16. OTHER INFORMATION

16.1. Further Information
The information and recommendations contained herein is based upon our testing and experience, and is believed accurate. The information herein represents the current state of our knowledge regarding this product. Since operating and use conditions can vary, and since we do not control such conditions, we must DISCLAIM ANY WARRANTY, EXPRESSED OR IMPLIED, with regard results to be obtained from the use of this product. Chem Source, Inc. and its Affiliates shall not be held responsible for any damage resulting from handling or contacting this product.

16.2. Preparation Information
Issued by: Eric Rall
Revision Date: November 2015
Revision: 5