



Material Safety Data Sheet

1. IDENTIFICATION

NAME: H2-SMZ-1000

ITEM DESCRIPTION: Proprietary mineral zeolite polymer blend
For emergencies call Chemtrec at 1-800-424-9300

2. HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW:

HEALTH HAZARDS: Causes severe eye and skin irritation. May be harmful if swallowed. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Wash thoroughly after handling.

PHYSICAL HAZARDS: None Anticipated

POTENTIAL HEALTH EFFECTS:

EYE: Severe eye irritant. Contact may cause stinging, watering, redness, swelling, and eye damage.

SKIN: Severe skin irritant. Contact may cause redness, burning, and severe skin damage. No information available on skin absorption.

INHALATION (BREATHING): No information available.

INGESTION (SWALLOWING): Moderate degree of toxicity by ingestion.

SIGNS AND SYMPTOMS: Effects of overexposure may include nausea, vomiting, irregular heartbeats (arrhythmia), and perforation of nasal septum. Repeated overexposures to dusts may result in irritation of the respiratory tract, pneumoconiosis (dust congested lungs), pneumonitis (lung inflammation), coughing and shortness of breath.

CANCER: No data available.

TARGET ORGANS: There is limited evidence from animal studies that overexposure may cause injury to the liver.

DEVELOPMENTAL: Inadequate data available for this material.

PRE-EXISTING MEDICAL CONDITIONS: Conditions aggravated by exposure may include skin disorders, respiratory (asthma-like) and liver disorders.

3. COMPOSITION / INFORMATION ON INGREDIENTS

This material is an essentially homogeneous ionic inorganic solid or solution. The individual components are not to be found as discrete entities within this product but do represent as closely as is practical the actual composition. In addition to the item listed - that correspond to TSCA listings - other related compounds with differing degrees of hydration, and hence differing CAS#'s are known.

4. FIRST-AID MEASURES

EYE: Immediately move victim away from exposure and into fresh air. If irritation or redness develops, flush eyes with clean water and seek immediate medical attention. For direct contact, immediately hold eyelids apart and flush the affected eye(s) with clean water for at least 20 minutes. Seek immediate medical attention.

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SKIN: Immediately remove contaminated shoes, clothing, and constrictive jewelry, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek immediate medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops, seek immediate medical attention.

INHALATION (BREATHING): If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

INGESTION (SWALLOWING): If swallowed, seek emergency medical attention. If victim is drowsy or unconscious and vomiting, place on the left side with the head down and do not give anything by mouth. If victim is conscious and alert, vomiting should be induced for ingestions of several swallows (2 ounces in an adult) preferably under direction from a physician or poison center. If possible, do not leave victim unattended and observe closely for adequacy of breathing.

NOTE TO PHYSICIANS: Due to high density, may produce striking abnormalities on chest X-rays. Generally it is not believed to be fibrogenic and the lesions typically have little or no clinical significance. However, occasional cases of suspected pneumoconiosis have been reported.

5. FIRE-FIGHTING MEASURES**FLAMMABLE PROPERTIES:**

FLASH POINT: Not applicable

OSHA FLAMMABILITY CLASS: Not applicable

LEL/UEL: Not applicable

AUTOIGNITION TEMPERATURE: Not applicable

BURN RATE (SOLIDS): Not applicable

UNUSUAL FIRE & EXPLOSION HAZARDS: No unusual fire or explosion hazards are expected.

EXTINGUISHING MEDIA: Use extinguishing agent suitable for type of ; surrounding fire.

FIRE FIGHTING INSTRUCTIONS: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant. Isolate immediate hazard area and keep unauthorized personnel out. Contain spill if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Cool equipment exposed to fire with water, if it can be done with minimal risk.

NFPA CODES: HEALTH: 1 FIRE: 0 REACTIVITY: 0 SPECIAL HAZARD:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

Stay upwind and away from spill. Isolate immediate hazard area and keep unauthorized personnel out. Contain spill if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Notify appropriate federal, state, and local agencies. Sweep up and package appropriately for disposal.

H2-SMZ-1000**7. HANDLING AND STORAGE**

HANDLING: The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits. Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Use good personal hygiene practice.

STORAGE: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas. Store only in approved containers. Protect container(s) against physical damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

COMPONENT	EXPOSURE LIMITS, MG/M ³						
	OSHA		ACGIH		Cal OSHA		MSHA
	TWA-Resp.	/TWA-Tot.	TWA-Resp.	/TWA-Tot.	TWA-Resp.	/TWA-Tot.	TWA
Nuisance Dust, 5 if Generated	5	15	3	10	5	10	10

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

ENGINEERING CONTROLS: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

RESPIRATORY: A NIOSH/MSHA approved air purifying respirator with a type 95 particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits (see Section 2). Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN: The use of gloves impermeable to the specific material handled is advised to prevent skin contact, possible irritation, absorption, and skin damage (see glove manufacturer literature for information on permeability). Depending on conditions of use, apron and/or arm covers may be necessary.

EYE/FACE: The use of a face shield and/or chemical goggles to safeguard against potential eye contact, irritation, or injury is recommended.

OTHER PROTECTIVE EQUIPMENT: Eye wash and quick-drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse. It is recommended that impervious clothing be worn.

9. PHYSICAL AND CHEMICAL PROPERTIES

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

FLASH POINT: Not applicable

FLAMMABLE/EXPLOSIVE LIMITS (%): LEU/UEL: Not applicable

AUTOIGNITION TEMPERATURE: Not applicable

BURN RATE (SOLIDS ONLY): Not applicable

APPEARANCE: Amber solid, flake, or solution

PHYSICAL STATE: Solid or liquid

ODOR: Solution - sharp, penetrating, irritating

VAPOR PRESSURE (MM HG): Not applicable

VAPOR DENSITY (AIR=L): Not applicable

BOILING POINT: Not applicable

FREEZING/MELTING POINT: Not applicable

SOLUBILITY IN WATER: High ✓**SPECIFIC GRAVITY:** ~ 1.1 - 1.6**10. STABILITY AND REACTIVITY****CHEMICAL STABILITY:** Stable under normal conditions of storage and handling.**CONDITIONS TO AVOID:** None Known**INCOMPATIBLE MATERIALS:** None Known**HAZARDOUS DECOMPOSITION PRODUCTS:** None Known**HAZARDOUS POLYMERIZATION:** None Known**11. TOXICOLOGICAL INFORMATION**

Target Organ(s): Oral administration and/or injection of the proprietary mineral zeolite polymer blend to laboratory animals resulted in limited evidence of liver effects as characterized by fatty acid infiltration, changes in hepatic serum enzyme activity, and changes in liver weight.

12. ECOLOGICAL INFORMATION**13. DISPOSAL CONSIDERATIONS**

This material, if discarded as produced, is not an RCRA "listed" hazardous waste. However, it should be fully characterized for toxicity prior to disposal (40 CFR 261). Use resulting in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14. TRANSPORT INFORMATION**This material is not regulated as a DOT Hazardous Material.****15. REGULATORY INFORMATION**

This material contains the following chemicals subject to the reporting requirements of **SARA 313** and **40 CFR 372**: NONE

Warning: This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5): NONE KNOWN

This material has not been identified as a carcinogen by NTP, IARC, or OSHA.

EPA (CERCLA) Reportable Quantity: NONE**16. OTHER INFORMATION**

Do not use ingredient information and/ or ingredient percentages in this MSDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from H2O Technical Services.

DISCLAIMER:

We believe that the information in this MSDS is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily either all-inclusive or fully adequate in every circumstance. Also, these suggestions should not be confused with or followed in violation of applicable laws, regulations, rules or insurance requirements.

NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.