



Graver Technologies

MSDS

MATERIAL SAFETY DATA SHEET

ECOSORB® S-462

1. Product & Company Identification

<i>Supplier/Manufacturer:</i>	Graver Technologies LLC	<i>Product Name:</i>	S-462
<i>Address:</i>	200 Lake Drive Glasgow, Delaware 19702-3319 U.S.A	<i>CAS Number:</i>	N/A
<i>Telephone Number:</i>	(302) 731-1700	<i>MSDS Number:</i>	865
<i>FAX Number:</i>	(302) 731-1707	<i>Issue Date:</i>	23-Jul-2008
<i>Emergency Phone:</i>	(800) 249-1990	<i>e-Mail:</i>	info@gravertech.com
		<i>Web Site:</i>	www.gravertech.com

Product/Material Uses: Removes calcium and other metal cations

2. Composition / Information On Ingredients

<i>Chemical & Common Name</i>	<i>CAS Number</i>	<i>Weight Percent</i>
Hydrated Zeolite Sodium A Powder	1318-02-1	20 - 40
Fiber, Cellulose	9004-34-6	20 - 40
Resin, Strong Base Anion Exchange	69011-15-0	0.5 - 1.5

This product contains no hazardous ingredients when evaluated by criteria established in the OSHA Hazard Communication Standard (29 CFR 1910.1200).

3. Hazards Identification

Primary Route(s) of Entry: inhalation, skin contact

Eye Hazards: Causes mild irritation to the eyes.

Skin Hazards: Prolonged exposure not likely to cause significant skin irritation. May cause more severe response if skin is abraded (scratched or cut).

Ingestion Hazards: Inedible. No known hazards.

Inhalation Hazards: Product may cause a dust hazard if allowed to dry out and disperse. May cause respiratory irritation.

EMERGENCY OVERVIEW

Warning: Toxic fumes may be released in fire situations.

4. First Aid Measures

<i>Eye:</i>	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes.
<i>Skin:</i>	Wash affected areas with soap and water. Get medical attention immediately if irritation develops. Wash clothing before reuse. Thoroughly clean shoes before reuse.
<i>Ingestion:</i>	No emergency medical treatment is necessary. Inedible.
<i>Inhalation:</i>	Remove person from source of exposure to fresh air. Get medical attention if irritation develops.

5. Fire Fighting Measures

Lower Explosive Limit: N/A

Upper Explosive Limit: N/A

Fire & Explosion Hazards :

Product is moist and dust-free. Clean up immediately or keep moist until cleanup can be initiated. Product is easily rewetted with a fine water mist. If product dries out and is allowed to become airborne, it may cause a dust explosion hazard when in high concentrations such as within confined spaces. Keep dust away from heat, sparks and flames.

Extinguishing Media :

Use water, dry chemical, or CO2. Use water to cool fire-exposed containers.

Fire Fighting Instructions :

Firefighters should wear self-contained breathing apparatus and full protective gear. Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and to prevent re-ignition. Remove product from building if safe to do so. Cool surroundings with water to localize the fire zone.

6. Accidental Release Measures

Avoid generating dust if product dries out - keep moist with water. Pick up released product with appropriate implements & return to original container if reusable, or dispose. No known environmental hazards.

7. Handling & Storage

Handling Precautions : Follow good handling and housekeeping practices. Avoid spills. Clean up spills while product is still moist to prevent dust and accumulations of dust, or generation of airborne dust. Product can be rewet with a fine water mist to prevent dust.

Storage Precautions : Store in sealed containers in a clean, dry, well-ventilated area away from ignition sources, combustible materials and heat.

Work/Hygienic Practices : After handling, wash thoroughly with soap and water.

8. Exposure Controls / Personal Protection

<i>Engineering Controls:</i>	Product is moist and dust-free. If product dries out it can be rewetted with a fine water mist prior to cleanup. If product dries out and rewetting is not possible, be sure there is adequate general and local exhaust ventilation to prevent excessive airborne dust concentrations. Local exhaust ventilation should be provided to maintain exposures below recommended occupational exposure limits.
<i>Eye/Face Protection:</i>	Safety glasses are recommended as minimum industrial eye protection when handling bulk product or performing spill clean-up.
<i>Skin Protection:</i>	Protective gloves are recommended to minimize skin contact. Use a lab coat or disposable coveralls to prevent excessive contamination to personal clothing.
<i>Respiratory Protection:</i>	In case of inadequate ventilation, use NIOSH-approved respirator for particulates (e.g., N95). Supplied air respirators may be needed for entering confined spaces where product is stored or handled.
<i>Ingredient(s) - Exposure Limits</i>	
hydrated zeolite sodium A	OSHA PEL-TWA: 15 mg/m ³ , total dust OSHA PEL-TWA: 5 mg/m ³ , respirable dust ACGIH TLV-TWA: 10 mg/m ³
fiber, cellulose	ACGIH TLV-TWA: 10 mg/m ³ OSHA PEL-TWA: 15 mg/m ³ , total dust OSHA PEL-TWA: 5 mg/m ³ , respirable dust

9. Physical & Chemical Properties

<i>Appearance:</i>	Moist, off-white cake	<i>Specific Gravity:</i>	> 1
<i>Odor:</i>	Odorless	<i>Packing Density:</i>	110 - 115 lb/ft ³
		<i>Vapor Pressure:</i>	N/A
<i>Chemical Type:</i>	Mixture	<i>Solubility:</i>	Insoluble
<i>Physical State:</i>	Solid	<i>Evaporation Rate:</i>	N/A

10. Stability & Reactivity

<i>Stability:</i>	Stable.
<i>Hazardous Polymerization:</i>	Will Not Occur
<i>Incompatible Materials:</i>	Avoid contact with hydrides and other water-reactive compounds, strong acids, strong alkalis.
<i>Hazardous Decomposition Products:</i>	None.

11. Toxicological Information

<i>Chronic/Carcinogenicity:</i>	Neither the product overall nor any of its ingredients are known to be listed as potentially carcinogenic by NTP, IARC, OSHA, or ACGIH.
<i>Ingredient(s) - Toxicological Data</i>	
hydrated zeolite sodium A	No carcinogenic or fibrogenic effects have been observed in rats exposed by inhalation to approx. 20 mg/m ³ . Adverse effects similar to those reported for other silicates ingested at high levels have been observed, such as urinary bladder and kidney problems.
fiber, cellulose	inhal-rat, LC50: >5800 mg/m ³ (4-hr) oral-rat, LD50: >5000 mg/m ³

12. Ecological Information

This material is thermodynamically unstable. Because sodium zeolite A rapidly hydrolyzes under environmental conditions, it cannot bioaccumulate.

13. Disposal Considerations

Dispose in accordance with applicable federal, state and local government regulations. Waste product is not considered to be a hazardous waste. Dispose of material in approved landfill. Avoid dispersal of spilled material and runoff into soil, waterways, drains and sewers.

14. Transport Information

Not regulated for transportation.

15. Regulatory Information

U.S. Regulatory Information: Toxic Substance Control Act (TSCA): All ingredients of this product are listed on the TSCA 8(b) Chemical Substance Inventory or are exempt.

Product is not classifiable under any of the five SARA Title III hazard ratings.

SARA Section 313 Notification: This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

Canadian Regulatory Information: This product is not regulated or controlled under WHMIS (Canada).

European Union (EU) Regulatory Information: European Union Safety Phrases-
S7/9 - Keep container tightly closed and in a well-ventilated place

16. Other Information

<i>NFPA Ratings</i>	Health: 0	<i>HMIS Ratings</i>	Health: 0
	Fire: 0		Fire: 0
	Reactivity: 0		Reactivity: 0
			Personal Protection: A

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