



Graver Technologies

MSDS

MATERIAL SAFETY DATA SHEET

ECOSORB® S-405RB, S-406RB, S-407RB, S-410RB, S-423RB, S-426RB, S-429RB, S-490RB

1. Product & Company Identification

<i>Supplier/Manufacturer:</i>	Graver Technologies LLC	<i>Product Name:</i>	S-405RB, S-406RB, S-407RB, S-410RB, S-423RB, S-426RB, S-429RB, S-490RB
<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>	4001
<i>FAX Number:</i>	(302) 731-1707	<i>Issue Date:</i>	23-Mar-2009
<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 color, taste, odor and turbidity from liquid food streams.

2. Composition / Information On Ingredients

<i>Chemical & Common Name</i>	<i>CAS Number</i>	<i>Weight Percent</i>
Carbon, Activated	7440-44-0	10 - 30
Fiber, Cellulose	9004-34-6	7 - 13
Resin, 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: Eye contact may cause mild mechanical irritation.

Skin Hazards: Prolonged or repeated skin contact may cause irritation, drying and redness.

Ingestion Hazards: Product is practically non-toxic if swallowed.

Inhalation Hazards: Avoid use in confined spaces. Wet activated carbon can absorb and remove oxygen from the air causing a severe hazard to workers. Product may cause a dust hazard if allowed to dry out and disperse. May cause respiratory irritation.

EMERGENCY OVERVIEW

Warning: Wet activated carbon removes oxygen from the air and can lower the concentration of oxygen inside vessels and other confined spaces. Dried product that is allowed to become airborne may be irritating. Excessive airborne dust creates a dust explosion hazard in confined areas.

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.
<i>Ingestion:</i>	If person is fully conscious, give 1 or 2 cups of water or milk to drink. Get medical attention immediately.
<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 fog, 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.

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. Do not enter places where bulk material is used or stored until adequately ventilated to prevent asphyxiation.

Storage Precautions : Store in sealed containers in a clean, dry, well-ventilated area away from strong oxidizers, 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>	
carbon, activated	OSHA PEL-TWA: 15 mg/m ³ , total dust as particulates, not otherwise specified. OSHA PEL-TWA: 5 mg/m ³ , respirable dust as particulates, not otherwise specified. Sweden TWA: 3 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, black cake (available in 30 lb bags)	<i>Specific Gravity:</i>	> 1
<i>Odor:</i>	Odorless	<i>Packing Density:</i>	28 - 32 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 strong oxidizing agents such as ozone, chlorine, permanganate, sulfuric acid and nitric acid.
<i>Hazardous Decomposition Products:</i>	Thermal decomposition (burning) may produce irritating and toxic fumes of carbon (carbon dioxide, carbon monoxide), nitrogen oxides, hydrogen chloride and amines. The exact chemicals formed depends on many factors including temperature and heating rate.

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>	
carbon, activated	inhal-rat LC50: >64,400 mg/m ³ oral-rat LD50: >10,000 mg/kg
fiber, cellulose	inhal-rat, LC50: >5800 mg/m ³ (4-hr) oral-rat, LD50: >5000 mg/m ³

12. Ecological Information

Ecotoxicological Information: No information is available for the product. However, ecotoxicity is expected to be minimal.

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.

This product is NOT considered spontaneously combustible under the "Self-Heating Test for Carbon" protocol listed in the United Nations' Manual of Tests and Criteria [33.3.1].

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-

S24/25 - Avoid contact with skin and eyes

S7/9 - Keep container tightly closed and in a well-ventilated place

16. Other Information

NFPA Ratings

Health: 0

Fire: 0

Reactivity: 0

HMIS Ratings

Health: 0

Fire: 0

Reactivity: 0

Personal Protection: A

Disclaimer

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for her/his particular purpose(s).