



Graver Technologies

MSDS

MATERIAL SAFETY DATA SHEET

ECOSORB® C-941, C-943, C-944, C-945, C-947, C-948

1. Product & Company Identification

<i>Supplier/Manufacturer:</i>	Graver Technologies LLC	<i>Product Name:</i>	C-941, C-943, C-944, C-945, C-947, C-948
<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>	856
<i>FAX Number:</i>	(302) 731-1707	<i>Issue Date:</i>	22-Jul-2008
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		<i>Web Site:</i>	www.gravertech.com

Product/Material Uses: Precious metal catalyst removal in pharmaceutical syntheses.

2. Composition / Information On Ingredients

<i>Chemical & Common Name</i>	<i>CAS Number</i>	<i>Weight Percent</i>
Carbon, activated	7440-44-0	60-100
Polyethylene homopolymer	9002-88-4	10-30

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 contact

Eye Hazards: Dust 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: High airborne concentrations of low toxicity dusts may cause coughing, sneezing and mild temporary irritation.

EMERGENCY OVERVIEW

Warning: High concentrations of finely divided dust may form explosive mixtures with air. Wet activated carbon removes oxygen from the air and can lower the concentration of oxygen inside vessels and other confined spaces. During fire, toxic and irritating gases may be generated.

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:

High dust concentrations may form explosive mixtures with air, which can be ignited by spark or flame. Dusts may accumulate a static discharge.

Explosibility: Class St1 (Kst = 105 bar m/s)

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. Remove product from building if safe to do so.

6. Accidental Release Measures

Avoid generating dust. Pick up released product with appropriate implements and return to original container if reusable. Or dispose.

7. Handling & Storage

Handling: Follow good handling and housekeeping practices. Avoid spills and accumulations of dust, or the generation of airborne dust. Do not enter places where bulk material is used or stored until adequately ventilated to prevent asphyxiation.

As with all finely divided materials, precautions should be taken to avoid inhalation and eye contact. Ground all transfer, blending and dust collecting equipment to prevent static discharge in accordance with NFPA 70, "National Electric Code;" NFPA 499, "Recommended Practice for the Classification of Combustible Dusts and of Hazardous (classified) Locations for Electrical Installations in Chemical Process Areas;" NFPA 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids" and OSHA Combustible Dust standards. Remove all ignition sources from material handling, transfer and processing areas where dust may be present.

Storage: 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>	Use with 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 Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam - See ACGIH TLV
polyethylene homopolymer	Russia STEL: 10 mg/m ³ .

9. Physical & Chemical Properties

<i>Appearance:</i>	Black powder, free-flowing	<i>Specific Gravity:</i>	> 1
<i>Odor:</i>	Odorless	<i>Packing Density:</i>	18.7 - 22.5 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

Stability: Stable

Hazardous Polymerization: Will Not Occur

Incompatible Materials: Avoid contact with strong oxidizing agents such as ozone, chlorine, permanganate, sulfuric acid and nitric acid.

Hazardous Decomposition Products: Thermal decomposition (burning) may produce irritating and toxic fumes of carbon (carbon dioxide, carbon monoxide), formaldehyde, ethylene and acrylic acid. The exact chemicals formed depends on many factors including temperature and heating rate.

11. Toxicological Information

Chronic/Carcinogenicity: Neither the product overall nor any of its ingredients are known to be listed as potentially carcinogenic by NTP, IARC, OSHA, or ACGIH.

Ingredient(s) - Toxicological Data

carbon, activated	inhal-rat LC50: >64,400 mg/m ³ oral-rat LD50: >10,000 mg/kg
polyethylene homopolymer	oral-mouse, Ldlo: 5000 mg/kg oral-rat, Ldlo: >3 gram/kg

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-

S22 - Do not breathe dust

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: 1

Reactivity: 0

HMIS Ratings

Health: 0

Fire: 0

Reactivity: 0

Personal Protection: B

Disclaimer

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