MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: BH - Vinyl Glass®

Manufacturer:
Federal-Mogul Corporation
26555 Northwestern Highway
Southfield, MI 48033

MSDS# BH-021

24hr Emerg # (Infotrac): 1-800-535-5053
International: 001-352-323-3500
Non-Emerg #: 248-354-9844

SECTION 2: COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

BH – Vinyl Glass® combines a flexible, attractive coating of polyvinyl chloride (PVC) material with a heat cleaned fiberglass braid which produces a superior insulating sleeving for 130°C systems. It is a tough, flexible, cut-through resistant material with a long thermal life. It is resistant to most acids, alkalis, oils, and aliphatic hydrocarbons.

Although several of the ingredients used to formulate this product may be hazardous in the raw state, the manufacturing process results in a solid, infusible form, binding and otherwise, rendering the product inert. The constituents identified below may be present in quantities greater than 1% (0.1% for carcinogens) that may be released from the product by operations such as overheating, burning, machining, abrading, or riveting.

The information in this document provides the minimum criteria for safe usage and handling of this product. Companies using this product should develop their own occupational health program to protect employees from injury or adverse health effects.

Ingredient	CAS No.	% Weight	OSHA PEL	ACGIH TLV (2005)
Continuous filament glass fibers	65997-17-3	>90	1 f/cc*	1 f/cc or 5 mg/m^3
Lead Chromate (as Lead) (C.I. Pigment Yellow 34)	1344-37-2	<0.1	0.05 mg/m^3	0.05 mg/m^3
Antimony trioxide (as Anitmony)	1309-64-4	<0.1	0.5 mg/m^3	0.5 mg/m^3

* proposed

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Shipped material is not considered hazardous, but operations (e.g., overheating, burning, machining, abrading, or riveting) that can create airborne dust should be avoided.

POTENTIAL HEALTH EFFECTS

Inhalation: Dust and vapor cause respiratory irritation.

Skin: Prolonged contact may cause skin irritation.

Eye: Dust particles may cause irritation or corneal injury due to mechanical action. Vapor generated during heating may irritate eyes.

Ingestion: Not a probable route of entry.

POTENTIAL HEALTH EFFECTS (continued)

Carcinogenicity:

COMPONENT NTP IARC OSHA
Antimony trioxide (as Antimony)
No 2B No
Continuous filament glass fibers
No 3 No
Lead Chromate (as Lead) (C.I. Pigment Yellow 34)
No 2A No

Symptoms and Effects of Exposure to Selected Individual Components

CONTINUOUS FILAMENT GLASS FIBERS
Acute - May cause irritation to skin, eyes, nose, and throat. May cause skin rash, conjunctivitis, coughing and sneezing.
Chronic – Although some studies of fibrous and mineral wool workers have shown a link to lung cancer in humans, those studies have clearly provided no evidence of a link between lung cancer and continuous filament fiberglass exposure.

ANTIMONY TRIOXIDE
Inhalation – No serious health risks reported from exposure other than a possible change in blood pressure. Prolonged exposure may cause irritation of the nose, throat and mouth.
Other hazards – Skin or eye contact may result in coughing, dizziness, headache, nausea, vomiting, diarrhea, stomach cramps and insomnia.

LEAD CHROMATE (AS LEAD)
Acute – Overexposure can cause a loss of appetite, metallic taste in mouth, anxiety, nausea, headache, irritability, muscle and joint pain, tremors, numbness, dizziness, and hypertension.
Chronic – Overexposure can cause fatigue, sleep disturbance, and constipation. More severe exposure is followed by colic, anemia, and neuritis.

SECTION 4: FIRST AID MEASURES

Inhalation: Move to fresh air. If irritation persists, seek medical attention.

Eye Contact: Rinse thoroughly with ample amounts of water. If irritation persists, seek medical attention.

Skin Contact: Wash exposed area with soap and cool water. Avoid scratching irritated areas. If irritation persists, seek medical attention.

Ingestion: Not a probable route of entry. Seek medical attention since ingestion may cause irritation to the stomach lining and kidneys.

SECTION 5: FIRE FIGHTING MEASURES

Flashpoint: N/A **LEL:** N/A **UEL:** N/A **Autoignition Temperature: >** 400°F

Extinguishing Media:	Use media type for surrounding fire.
Unusual Fire and Explosion Hazards:	None known.
Special Fire-Fighting Procedure:	Wear self-contained breathing apparatus when extinguishing a fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

If dust is generated, remove the dust by vacuuming or wet-mopping. Vacuums used for this purpose should be equipped with HEPA filters. Do not use compressed air to blow dust from surfaces.

SECTION 7: HANDLING AND STORAGE

Store in a cool, dry place. If dust is generated during shipping, remove the dust from the container by vacuuming or wet-mopping. Vacuums used for this purpose should be equipped with HEPA filters. Do not use compressed air to blow dust from surfaces.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation Protection:	Any operation which may produce dust, including machining, grinding, riveting, or abrading this product, should be adequately exhausted to prevent inhalation of dust.
Respiratory Protection:	Use a NIOSH-approved respirator if there is a potential for exposure to exceed applicable PELs or TLVs. (See 29 CFR 1910.134, OSHA Respiratory Protection Standard.)
Skin Protection:	If skin irritation occurs, gloves and other protective garments may be worn. If excessive cutting of this material exists, it is recommended to wear any type of gloves and loose clothing.
Eyes:	Wear safety glasses or goggles if cutting the material.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	N/A	**Vapor Pressure:**	N/A
Melting Point:	Not determined	**Vapor Density (air = 1):**	N/A
pH:	N/A	**% Volatile:**	N/A
Specific Gravity:	1.1 to 1.7	**Evaporation Rate:**	N/A
Water Solubility:	Insoluble	**Form, Color, and Odor:**	Solid, various colors, odorless

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable at normal temperatures and storage conditions.
Incompatibility (Materials/Conditions to Avoid):	None known.
Hazardous Polymerization:	Will not polymerize.
Decomposition Products:	Thermal decomposition may produce such by-products as carbon monoxide, carbon dioxide, hydrogen chloride, and lead compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Inhalation:	Refer to Section 3
Skin:	Refer to Section 3
Eye:	Refer to Section 3
Ingestion:	Refer to Section 3
Acute:	None known
Chronic:	None known

SECTION 12: ECOLOGICAL INFORMATION

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Federal and state law regulates disposal of scrap material or dust as solid waste; disposal must be in accordance with federal and state laws. Contact local regulatory agencies for guidance.

SECTION 14: TRANSPORTATION INFORMATION

Proper Shipping Name:	Not regulated
Hazard Class:	N/A
Identification Number:	N/A
Packing Group:	N/A
Shipping Label:	None
Additional Marking Requirement:	None

SECTION 15: REGULATORY INFORMATION

U.S. TSCA:	The chemicals used to manufacture this product are listed on the U.S. Toxic Substances Control Act (TSCA) Inventory.
California Proposition 65:	This product contains antimony trioxide, an ingredient known to the State of California to cause cancer, birth defects or other reproductive effects.
SARA Title III – Section 313 Supplier Notification:	This product may contain antimony trioxide (antimony compound), a chemical subject to SARA Title III/CERCLA "reportable quantities" (RQs) and/or "threshold planning quantities" (TPQs) and/or are classified as "Toxic Chemicals" under the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and 40 CFR 372.
RCRA Hazardous Waste Code:	Not Available
CERCLA Hazardous Substances:	Antimony trioxide, 1,000 pounds.
OSHA:	Not for the product. OSHA has established PELs for the lead chromate (as lead) and antimony trioxide (as antimony) constituents, but not for the product.
WHMIS Classification:	Not for the product. D2A for antimony trioxide and lead chromate.

SECTION 16: OTHER INFORMATION

Abbreviations:

CAS No.:	Chemical Abstract Services Number
OSHA PEL:	U.S. Occupational Safety and Health Administration, Permissible Exposure Limit
ACGIH TLV:	American Conference of Governmental Industrial Hygienists, Threshold Limit Value (2005)
f/cc:	Fibers per cubic centimeter of sampled air
mg/m^3:	Milligrams of contaminant per cubic meter of sampled air, on a weight-to-volume basis.
N/A:	Not Applicable
IARC:	International Agency for Research on Cancer
NTP:	National Toxicology Program
HEPA:	High-efficiency particulate air
NIOSH:	National Institute of Occupational Safety and Health

The information and recommendations stated above are taken from sources believed to be accurate as of the date of this revision. Federal-Mogul makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability, including direct, incidental or consequential damages for any reliance thereof.

This MSDS should not be used as a complete or accurate summary of the content of this product. For specific information on brand names, manufacturers, or quantities, please refer to product specification documents, wherever available.