



MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: BH - Viton® Sleeving	Manufacturer: Federal-Mogul Corporation 26555 Northwestern Highway Southfield, MI 48033
MSDS# BH-023	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 – Viton® Sleeving is a tough, braided fiberglass sleeve coated with a smooth, uniformed and fully-cured jacket of Viton fluoroelastomer. It is a sleeve designed for excellent temperature range and unusual fluid resistance to such liquids as fuel, oil, hydraulic fluids, and lubricants. It offers maximum resistance to abrasion, shock, vibration, impact, and cut-through hazards. The smooth, dry bore makes oversleeving simple.

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
Continuous filament glass fibers	65997-17-3	75 to 80	1 f/cc*	1 f/cc or 5 mg/m ³
Fluoropolymer	25190-89-0	10 to 15	None established	None established
Manganese Dioxide	1313-13-9	<1	None established	None established
Kaolin	1332-58-7	<1	15 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)	2 mg/m ³ (respirable)
Umber	12713-03-0	<1	None established	None established
Red Iron oxide	1309-37-1	<1	10 mg/m ³ (fume)	5 mg/m ³ (dust and fume)
Yellow Iron oxide	51274-00-1	<1	None established	None established
Diaminoalkyl Silicone	Not established	1 to 5	None established	None established

* 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.

SECTION 3: HAZARDS IDENTIFICATION (CONTINUED)

POTENTIAL HEALTH EFFECTS

Inhalation:

Dust and vapor may 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.

Carcinogenicity:

	COMPONENT NTP IARC OSHA
Continuous filament glass fibers, Red Iron oxide	No 3 No
Fluoropolymer, Kaolin, Manganese Dioxide, Yellow Iron oxide, Diaminoalkyl Silicone	No No 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.

IRON DUST (IRON OXIDE)

Inhalation hazards – Repeated or prolonged exposures to iron dust may cause a form of benign pneumoconiosis called siderosis. Exposure is generally not associated with pulmonary fibrosis or disability unless there is concurrent exposure to other fibrosis-producing materials such as silica.

Other hazards – Contact may cause skin and eye irritation.

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:** Will not burn

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. For cutting operations, gloves and loose-fitting clothing are recommended to be worn.

Eyes: Wear safety glasses or goggles when 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:	2.06 – 2.76	Evaporation Rate:	N/A
Water Solubility:	Insoluble	Form, Color, and Odor:	Solid, brown, 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, and a slight amount of ammonia.

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 does not contain ingredients known to the State of California to cause cancer, birth defects or other reproductive effects.
SARA Title III – Section 313 Supplier Notification:	This product does not contain the chemicals 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:	None
OSHA:	OSHA has established PELs for some of the constituents but not for the product.
WHMIS Classification:	Not available for the product. Manganese dioxide has been classified C, D2B. Kaolin has been classified as D2A.

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

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