



MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: FlexSeal 2520

Manufacturer:

Federal-Mogul Corporation
26555 Northwestern Highway
Southfield, MI 48033

MSDS# BH-138

24hr Emerg # (Infotrac): 1-800-535-5053

International: 001-352-323-3500

Non-Emerg #: 248-354-9844

SECTION 2: COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Bentley-Harris FlexSeal 2520 is nylon convolute and a nylon hook & loop closure assembly. The closure assembly is attached directly to the convolute in a unique process. This process eliminates the need to tape over the convolute and can reduce ergonomic issues involved with over-taping. It is excellent for fluid protection and abrasion resistance.

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 mixture inert. We have identified all the constituents below present in quantities greater than 1% (0.1% for carcinogens) that may be released from the product by overheating, burning, machining, abrading, or riveting.

The following information 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
Polyamide Alloy	None Established	92	None Established	None Established
Caprolactam	105-60-2	3	None Established	5 mg/m ³ (*)
Nylon Hook & Loop	None Established	5	None Established	None Established

*: inhalable fraction, vapor and aerosol

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: Inhalation of dust and vapor from heating above recommended levels can cause irritation to mucous membranes of the nose and throat.

Skin: Dust may cause irritation. Molten material can cause thermal burns.

Eye: Solid or dust particles and thermal fumes may cause irritation or corneal injury.

Ingestion: Not a probable route of entry. Ingestion of product may cause gastrointestinal discomfort.

POTENTIAL HEALTH EFFECTS (continued)

Carcinogenicity:

	COMPONENT NTP IARC OSHA
Polyamide Alloy	No No No
Caprolactam	No Yes (4) No
Nylon Hook & Loop	No No No

4: Probably not carcinogenic to humans

Symptoms and Effects of Exposure to Selected Individual Components

CAPROLACTAM

Moderately toxic by ingestion or skin contact. A skin and eye irritant. When heated, could emit toxic fumes of nitrogen oxides.

SECTION 4: FIRST AID MEASURES

Inhalation:	Move to fresh air. Seek medical attention.
Eye Contact:	Rinse thoroughly with ample amounts of water for 15 minutes. Seek medical attention.
Skin Contact:	Wash thoroughly with soap and water. If molten material falls on skin, do not attempt to remove material; cool immediately with water. Seek medical attention.
Ingestion:	Seek medical attention.

SECTION 5: FIRE FIGHTING MEASURES

This product is inherently flame resistant.

Flashpoint: N/A **LEL:** N/A **UEL:** N/A **Autoignition Temperature:** N/A

Extinguishing Media: Use media suitable for surrounding fire.

Unusual Fire and Explosion Hazards: Toxic vapors can be emitted under fire conditions.

Special Fire Fighting Procedure: Wear self-contained breathing apparatus when extinguishing. Hazardous decomposition products are generated in fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Product may present a slipping hazard. Sweep up and dispose of according to all federal and state disposal procedures. If dust occurs during machining, abrading or riveting, remove dust by vacuuming or wet-mopping. Do not use compressed air to blow dust from surfaces.

SECTION 7: HANDLING AND STORAGE

If dust occurs while shipping product, remove 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 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation Protection: Any operation which may produce dust or thermal vapors, including cutting, machining, grinding, riveting, or abrading of this product, should be adequately exhausted to prevent inhalation of dust or fumes.

Respiratory Protection: Not required under normal processing conditions. If dusty conditions exist, use a NIOSH-approved respirator if there is a potential for exposure to dust, vapor, or fume exceeding PELs or TLVs. (See 29 CFR 1910.134, OSHA Respiratory Protection Standard.)

Skin Protection: Gloves and are protection should be worn to avoid burns if thermal cutting this product.

Eyes: Wear safety glasses or goggles, as necessary, if dust exposure is possible.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	N/A	Vapor Pressure:	N/A
Melting Point:	>420°F	Vapor Density (air = 1):	N/A
pH:	N/A	% Volatile:	N/A
Specific Gravity:	1.38 g/cc	Evaporation Rate:	N/A
Water Solubility:	Insoluble	Form, Color and Odor:	Solid, black and odorless

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable at normal temperatures and storage conditions.
Incompatibility (Materials/Conditions to Avoid):	Strong mineral acids.
Hazardous Polymerization:	Will not polymerize.
Decomposition Products:	Avoid exposing to open flame and/or temperatures greater than 300° C for prolonged periods of time. At this temperature, thermal decomposition begins to occur producing such by-products as carbon monoxide ammonia, aliphatic amines, ketones and nitriles which may be flammable, toxic and/or irritating.

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

N/A

SECTION 13: DISPOSAL CONSIDERATIONS

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

SECTION 14: TRANSPORTATION INFORMATION

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

SECTION 15: REGULATORY INFORMATION

U.S. TSCA:	All chemicals used in the manufacture of 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 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:	Not Available
OSHA:	Not Available
WHMIS Classification:	Not Available

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 (2004)
mg/m ³ :	Milligrams per cubic meter
N/A:	Not Applicable
IARC:	International Agency for Research on Cancer
NTP:	National Toxicology Program
NIOSH:	National Institute for Occupational Safety and Health

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