FLEXITALLIC L.P.

Material Safety Data Sheet

No. FDP-012
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Contact Number 281-604-2400

GENERAL INFORMATION
Manufacturer:
Flexitallic L.P.
6915 La Porte Road
Deer Park, TX 77536

Common Name, Trade Name, or Specification:
Permanite Fluoroseal DOT Hazard Code - N/A

1. HAZARDOUS INGREDIENTS AND EXPOSURE LIMITS

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

Component	CAS Number	%	OSHA PEL	ACGIH TLV
PTFE Binder	None	<95	N/A	3ppm(HFl) / 2ppm(CFl)
Rubber	None	<1	N/A	N/A
Phenolic Resin	None	<1	N/A	N/A
Acrylonitrile	107-13-1	<1	2 ppm	2 ppm
Methyl Isobutyl Ketone	108-10-1	<1	205 mg/m^3	50 ppm
Ethyl Alcohol	64-17-5	<1	1900 mg/m^3	1000 ppm
Methyl Ethyl Ketone	78-93-3	<1	590 mg/m^3	200 ppm

2. PHYSICAL AND CHEMICAL CHARACTERISTICS

Melting Point - None
Color - White Cord
Solubility in water - Insoluble
Specific Gravity - 0.4 - 0.5
Odor -None
Form - Solid

3. FIRE AND EXPLOSION DATA

Auto-ignition Temperature: This product is inherently flame resistent.
Flammable Limits in Air: % in Air by Volume: LEL: N/A UEL: N/A
Extinguisher Media: Carbon dioxide, chemical, or foam
Special Firefighting Procedure: Material in or near fires should be cooled with a water spray or fog. A self-contained breathing apparatus, operating in the positive pressure mode, and full fire fighting protective clothing should be worn for combative fires.
Unusual Fire and Explosion Hazards: Thermal decomposition or combustion may produce dense smoke, oxides of carbon, and low molecular weight organic compounds whose composition has not been characterized.

4. PHYSICAL HAZARDS AND REACTIVITY DATA

Stability: Stable at normal temperatures and storage conditions
Incompatibility: None
Hazardous Decomposition Products: None
Hazardous Polymerization: Will not polymerize. This product is fully cured in the manufacturing process.

5. HEALTH HAZARDS

Carcenogenicity	NTP Listed	IARC Listed	OSHA Listed
PTFE Binder	No	No	No
Rubber	No	No	No
Phenolic Resin	No	No	No
Acrylonitrile	Yes	Yes*	Yes
M.I.B.K	No	No	No
Ethyl Alcohol	No	No	No
M.E.K	No	No	No

* IARC classifies acrylonitrile as "probably carcinogenic to humans." (Group 2A)

RUBBER (POWDERED)
Inhalation hazards - May cause mild irritation of respiratory tract. Repeated and prolonged inhalation of dust may lead to a benign pneumoconiosis. This condition may cause some lung function impairment but is reversible with reduced exposure.
Other hazards - Eyes - may cause mild transient eye irritation.

PTFE (Teflon®)
Inhalation of fumes from overheating PTFE may cause polymer fume fever, a temporary flu-like illness with fever, chills, and sometimes cough, of approximately 24 hours duration. Smokers should avoid contamination of tobacco products, and should wash their hands before smoking. Small amounts of

carbonyl fluoride and hydrogen fluoride may also be evolved when PTFE is overheated or burned.
Inhalation of low concentrations of Hydrogen Fluoride can initially include symptoms of choking, coughing, and severe eye, nose and throat irritation. Possibly followed after a symptomless period of 1 to 2 days by fever, chills, difficulty in breathing, cyanosis, and pulmonary edema. Acute or chronic overexposure to HF can injure the liver and kidneys.
Inhalation, ingestion, or skin or eye contact with Carbonyl fluoride may initially include: skin irritation with discomfort or rash; eye corrosion with corneal or conjunctival ulceration; irritation of the upper respiratory passages; or temporary lung irritation effects with cough, discomfort, difficulty breathing, or shortness of breath.
Individuals with preexisting diseases of the lungs may have increased susceptibility to the toxicity of excessive exposures from thermal decomposition products.

PHENOLIC RESIN - CURED
Inhalation hazards - Dust may cause irritation of nasal and respiratory tracts. If formaldehyde vapors are present, inhalation may cause a form of nasal cancer. Other hazards - Prolonged exposure can cause irritation, redness, and tearingof the eyes and may lead to sensitization of the skin and dermatitis.

ACRYLONITRILE
Inhalation Hazards - Exposure to acrylonitrile may cause somnolence, general anesthesia, cyanosis, and diarrhea. Symptoms include flushing of the face, salivation, irritation of the eyes and nose, photophobia, deepened respiration, nausau, weakness, and headache. IARC classifies acrolynitrile as "probably carcinogenic to humans." (Group 2A)
Other hazards - Acrolynitrile is a human systematic irritant and may be poisonous by skin absorption and ingestion. Target organs include the liver, central nervous system, brain, kidneys, and cardiovascular system.

METHYL ISOBUTYL KETONE (HEXONE)
Inhalation hazards - M.I.K. is a systemic irritation.
Other hazards - exposure will irritate skin, eyes and mucous membranes. Moderately toxic by ingestion, narcotic in high concentrations.

ETHYL ALCOHOL
Inhalation hazards - Moderately toxic if inhaled, may cause cough or irritation of lungs.
Other hazards - Ethyl Alcohol is moderately toxic by ingestion. May cause sleep disorders, convulsions, nausea or coma. Prolonged exposure may cause headache, iritation of the eyes.

METHYL ETHYL KETONE (M.E.K.)
Inhalation hazards - M.E.K. is a systemic irritation.
Other hazards - Moderately toxic by ingestion, skin contact, and imperitoneal routes. Will irritate eyes and nasal passages.

6. FIRST AID

Inhalation: Move to fresh air. Obtain medical attention.
Eyes: Flush with water to remove particulate. Obtain medical attention.
Skin: Wash thoroughly with soap and water. If persistent irritation develops, obtain medical attention.
Ingestion: Obtain medical attention.

7. SPECIAL PRECAUTIONS AND SPILL / LEAK PROCEDURES

Handling and Storage : Shipping and storage may result in accumulation of dust in shipping containers. If this occurs, dispose of the container in an airtight polyethylene bag (see disposal instructions below) or 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 storage containers.

Release or Spill : If a release of dust occurs during machining, abrading, or riveting, 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 the workplace.

Waste Disposal : Disposal of solid waste is regulated by federal and state law. Waste should be placed in airtight containers, and disposed of properly. Contact local regulatory agency for guidance.

8. PERSONAL PROTECTION AND CONTROL

Respiratory Protection : Use NIOSH-approved respirator if exposure to dust, vapors, or fumes in concentrations exceeding PEL's or TLV's is possible. (See 29 CFR 1910.134 for respiratory protection standards)

Ventilation : Any operations which may produce dust, including machining, grinding, riveting, or abrading of this product, should be adequately exhausted to prevent inhalation of dust.

Personal Protective Equipment : Suitable respiratory protection should be worn if dust exposure is possible. All regulations and safe practices related to the use of respiratory protection must be observed. Refer to OSHA standards and NIOSH guidelines. If skin irritation occurs, gloves and other protective garments may be worn.

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