FLEXITALLIC L.P.

Material Safety Data Sheet

No. FDP-003 REVISED: 10 July 2009 Contact Number 281-604-2400

GENERAL INFORMATION

Manufacturer: Flexitallic Ltd. Scandinavia Mill, Hunsworth Lane Cleckheaton, West Yorkshire, England BD19 5BT

Common Name, Trade Name, or Specification:

Ceramic Filled Spiral Wound Gasket

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.

CAS Component Number		% OSHA PEL		ACGIH TLV	
Nickel	7440-02-0	<10	1 mg/m³	1 mg/m³	
Chromium	7440-47-3	<15	$0.5~\mathrm{mg/m^3}$	0.5 mg/m³	
Molybdenum	7439-98-7	< 3	$10~{ m mg/m^3}$	$10~\mathrm{mg/m^3}$	
Ceramic Fibers	None	<85	1 fiber/cc*	N/A	

^{*} No OSHA limit has been established for this substance. The limit shown is a recommended limit established by the manufacturer. The TLV-TWA is under further review. A value no greater than 0.5 f/cc, or less than 0.1 f/cc will be considered, based upon data currently available.

2. PHYSICAL AND CHEMICAL CHARACTERISTICS

Melting Point - None Solubility in water - Insoluble Odor -None Color - White Specific Gravity - 1.0 - 2.0 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

Carcinogenicity:	NTP Listed	IARC Listed	NIOSH Listed	OSHA Listed
Nickel	Yes	Yes*	No	Yes
Chromium	No	No	No	No
Molybdenum	No	No	No	No
Ceramic Fibers	Yes	No**	No	No

^{*} IARC Classifies nickel as carcinogenic to humans." (Goup 1)

Symptoms and Effects of Exposure to the Individual Components:

MOLYBDENUM

Inhalation hazards - Dust may cause irritation of nasal and respiratory passages.

Other hazards - Molybdenum may be aneye irritant. Ingestion may cause diarrhea, loss of weight, liver and kidney damage.

NICKEL

Inhalation hazards - Prolonged exposure may cause headache, vertigo, nausea, and vomiting, and may cause reproductive problems. IARC classifies nickel as "carcinogenic to humans." (Group 1)

Other hazards - Acute contact exposure may cause allergic contact dermatitis, pulmonary asthma, conjunctivitis, and inflammatory reactions around nickel-containing medical implants and prostheses.

Prolonged contact may cause substernal pain, cough, hyper-pnea, weakness, cyanosis, leukocytosis, pneumonitis, convulsions, and delerium. Ingestion may produce gastroenteric irritation resulting in vomiting, inflammation, and epigastric pain.

CHROMIUM

Inhalation hazards - Acute: exposure may result in cough and irritation of the respiratory system.

Chronic: Prolonged exposure may cause histologic fibrosis of the lungs.

Other hazards - Poisonous by ingestion; may cause severe gastrointestinal irritation.

^{**}ACGIH classifies refractory ceramic fibers as "suspected human carcinogen." (TLV-A2)

CERAMIC FIBERS

Inhalation hazards - Overexposure to respirable fibers by inhalation may cause mild and temporary upper respiratory irritation, with discomfort or cough. ACGIH classifies refractory ceramic fibers as "suspected human carcinogen." (TLV-A2)

Other hazards - The mechanical action of fibers may cause slight skin irritation and mild irritation of the eyes and nasal passages. Ingestion may cause gastrointestinal irritation, vomiting, and diarrhea.

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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