

MATERIAL SAFETY DATA SHEET

Exhaust Wrap Material

SECTION I - PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME: Exhaust Wrap

GENERAL USE: Thermal Insulation

PRODUCT DESCRIPTION: High temperature fiber glass material to insulate high temperature piping.

Distributor Name

Design Engineering, Inc.
604 Moore Rd.
Avon Lake, OH 44012

Date Prepared: June 19, 2006

Telephone for Information: 440-930-7940

Emergency Telephone: 800-264-9472

SECTION II - OSHA HAZARDOUS INGREDIENTS

<u>COMPONENT</u>	<u>Wt %</u>	<u>CAS NO</u>	<u>ACGIH TLV</u> (8-hr TWA)	<u>OSHA PEL</u> (8-hr TWA)
<u>Fiberglass</u>	98-100%	65997-17-3		
Nonrespirable	>98%		5 mg/m3 Inhalable fraction	15 Mg/m3, total dust
Respirable	<1%		3 mg/m3,PNOC	5 mg/m3,respirable
Respirable particulate with Fiber like dimensions (glass shards)	<0.002%		NF	1 fiber/cc; aspect ratio >5:1
<u>Size</u>	0-2%	mixture	N/A	N/A
<u>Coating</u>	None			

TWA – time weighted average; PNOR – particles not otherwise classified

SECTION III - PHYSICAL DATA

Boiling Point: N/A

Melting Point: N/A

Percent Volatile: N/A

Solubility in Water: Insoluble

APPEARANCE & ODOR: Tan/Graphite, No odor

Specific Gravity: 2.60

Vapor Density: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

SECTION IV - FIRE & EXPLOSION DATA

FLASH POINT: N/A

AUTO IGNITION TEMP: N/A

EXTINGUISHING MEDIA: Water, chemical foam, dry chemical, co2, and/or smother.

SPECIAL FIREFIGHTING INSTRUCTIONS: Self-contained breathing apparatus

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

METHOD USED: N/A

FLAMMABILITY LIMITS: N/A

SECTION V - REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY: None reasonably foreseeable.

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO2. Other undetermined compounds could be released in small quantities.

HAZARDOUS POLYMERIZATION: Will not occur.

MATERIAL SAFETY DATA SHEET

Exhaust Wrap Material

SECTION VI - HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Inhalation, skin, eye

HEALTH HAZARDS:

ACUTE: Possible mechanical irritation accompanied by itching or dermatitis

CHRONIC: None known.

HEALTH HAZARD EVALUATION

One of the health questions about textile glass fiber is whether or not it can cause cancer in people. The diameter of these continuous filament fibers make them too large to be inhaled into the lungs by people. **No health authority has found, and no test has shown, that glass textile fibers cause cancer in people.** As a result of these findings, the World Health Organization and other authoritative bodies do not classify textile glass fibers as a carcinogen.

One of the reasons that people continue to have concerns about fiberglass and cancer are studies such as the 1997 study from the Institute of Occupational Medicine (IOM) in Edinburgh, Scotland. This study found that animals exposed to an extremely high dose of a durable E glass micro fiber, with average diameters less than 1 micron, developed lung scarring and tumors, including cancer of the lining of the lung (mesothelioma). The IOM study results are consistent with previously published research indicating that high doses of durable, fine diameter fibers can cause disease in experimental animals.

Although our continuous filaments are an E glass, they are not the same as the E micro fibers tested in the IOM study. Our fiberglass supplier does not manufacture this micro fiber.

SECTION VII – FIRST AID INFORMATION

INHALATION: If irritation develops move to fresh air.

SKIN CONTACT: If fibers irritate the skin wash with soap and water.

EYE CONTACT: Flush eyes with water for 15 minutes or until fibers are removed. Do not rub.

INGESTION: N/A

SECTION VIII – PERSONAL PROTECTION

THE FOLLOWING PRECAUTIONS ARE ADVISABLE DURING CUTTING AND FABRICATION OR OTHER OPERATIONS THAT COULD GENERATE DUST WHILE USING THIS MATERIAL.

VENTILATION: General dilution and/or local exhaust ventilation should be provided as necessary to maintain exposures below occupational exposure limits (See Section II).

RESPIRATORY PROTECTION: A properly fitted NIOSH/MHSA approved dust respirator should be used when 1) the level of dust in the air exceeds occupational exposure limits (See Section II); 2) or if irritation occurs. Use respiratory protection in accordance with your company's respiratory protection program, and OSHA regulations under 29 CFR 1910.134.

EYE PROTECTION: Safety glasses, goggles, or face shields, as necessary.

PROTECTIVE CLOTHING: Wear loose fitting long sleeve shirt and pants or other appropriate clothing to protect those areas where irritation is experienced. Skin irritation is known to occur at pressure points such as around neck, wrist, waist, and fingers.

WORK AND HYGIENIC PRACTICES: Handle in accordance with good industrial hygiene and safety practices.

- Remove dust and fibers from the skin after exposure. Be careful not to rub or scratch irritated areas which could force fibers into the skin. Fibers should be washed off.
- Use of barrier creams can, in some instances, be helpful
- Use vacuum equipment to remove fibers and dust from clothing. Wash contaminated clothing separately and wipe out washer/sink in order to prevent loose fibers and dust from contaminating other laundry.
- Use vacuum equipment to clean work surfaces.

MATERIAL SAFETY DATA SHEET

Exhaust Wrap Material

SECTION IX - STORAGE PRECAUTIONS

STORAGE PRECAUTIONS: None

SECTION X - DISPOSAL CONSIDERATIONS

SPILLS: N/A

WASTE DISPOSAL: Dispose as a solid non-hazardous waste, in accordance with federal, state, and local regulations.

The information presented in this MSDS is believed to be factual. However, nothing contained in this information is to be taken as a warranty of any kind. The user should review any recommendations, in the specific content use, to determine whether they are appropriate.

Design Engineering, Inc.
604 Moore Rd, Avon Lake, Ohio 44012
TEL: (440) 930-7940 FAX: (440) 930-7967
1-800-264-9472
www.designengineering.com