



MATERIAL SAFETY DATA SHEET THERMAFIBER® KFAC-19

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SECTION I PRODUCT IDENTIFICATION

PRODUCT(S): THERMAFIBER® KFAC-19

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SYNONYM: Insulation

CHEMICAL FAMILY: Man-made Vitreous Fibers.

SECTION II INGREDIENTS

MATERIAL	WT%	ACGIH TLV	OSHA PEL	CAS NUMBER
Mineral wool fiber ¹	0-60	Respirable: 1 f/cc	Respirable: 1 f/cc	65997-17-3
Fibrous Glass	0-5	1 f/cc	1 f/cc	65997-17-3
Hydrous Aluminum Silicate	15-25	As respirable crystalline silica: 0.1 mg/m ³	As respirable crystalline silica: 0.1 mg/m ³	14808-60-7

If laminated, contains the following adhesive:

Vinyl alcohol polymer	<1	(NE)	(NE)	9002-89-5
(T) - Total	(R) - Respirable	(NE) - Not Established		

¹OSHA and ACGIH recommended exposure level is 1 fiber/cc and NIOSH recommended exposure level is 3 fibers/cc. This material is slag wool. Other generic terms that are used or have been used to classify this material include mineral wool, stone wool, man-made mineral fiber (MMMMF), and man-made vitreous fiber (MMVF). A more recent generic term that has appeared in the literature to describe these glass-like materials is synthetic vitreous fiber (SVF).

SECTION III HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

ACUTE: The components of panels are bound in a cementitious matrix. When panels are cut or trimmed, especially with power tools, the resulting dust may cause mechanical irritation.

EYES: Direct contact with eye can cause mechanical irritation.

SKIN: This material (in wet state or as dust) is not chemically harmful if it gets on the skin and is not immediately washed off. However direct contact of dust and especially mineral wool fibers with skin can cause skin irritation (mechanical) and itchiness.

INHALATION: Inhalation of dust can cause nose, throat, lungs and upper respiratory tract irritation. Persons exposed to dust may be forced to leave area because of nuisance conditions such as coughing, sneezing and nasal irritation.

INGESTION: No known effects.

CHRONIC: Prolonged and repeated overexposure to respirable crystalline silica may result in lung disease (i.e., silicosis) and/or lung cancer. Persons with chronic or systemic skin or eye disease should use extra ordinary precautions and wear all personal protective equipment when working with this product. *Fiber Glass and Mineral Wool:* In October 2001, the International Agency for Research on Cancer (IARC) classified fiber glass wool as Group 3 (not classifiable as to carcinogenicity to humans).

SECTION IV FIRST AID MEASURES

EYES: In case of contact, immediately flush thoroughly with copious amounts of water occasionally lifting the lower and upper lids (to remove particulates). Get medical attention immediately. Contact lenses should not be worn when working with this product.

SKIN: Skin contact is not a chemical hazard. Mechanical action of fibers on skin can cause itchiness. Irritation of skin may occur with prolonged

and repeated contact. Rinse with cool water, followed by washing with soap and warm water. A commercially available skin cream or lotion may be helpful to treat dry skin areas. Wash hands before eating or using restroom.

INHALATION: If exposed to excessive levels of dust, leave area of dust exposure and remain away until coughing and other symptoms subside. Other measures are usually not necessary, however if conditions warrant, get medical attention.

INGESTION: No harmful or chronic effects expected. No specific recommendation. If gastric disturbance occurs, call physician.

TARGET ORGANS: Eyes, skin, lungs and respiratory system.

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED: Pre-existing upper respiratory and lung disease such as, but not limited to, bronchitis, emphysema and asthma.

PRIMARY ROUTES OF ENTRY: Inhalation, eyes and skin contact. Note to physician: This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

SECTION V FIRE FIGHTING MEASURES

The products are non-combustible and do not pose a fire hazard. However, packaging material may burn.

Extinguishing Media: Water fog, dry chemical ABC, rated not combustible.

Special Fire Fighting Procedures: No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

Unusual Fire and Explosion Hazards: None.

Special Fire Fighting Protective Equipment: Observe normal fire fighting procedures.

Flash Point (Method Used): Not applicable.

Upper and lower flammable limits in air: Not applicable.

Autoignition temperature: Not applicable.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide and trace gases.

SECTION VI ACCIDENTAL RELEASE MEASURES

CONTAINMENT: Not necessary. Treat as inert material.

CLEAN UP: Pick up large pieces. Use gloves to avoid skin irritation. Avoid creating dust and install in well ventilated area. Cut and trim with razor knife or hand saw to minimize dust levels. Using power tools for cutting will generate high dust levels. Power tools should be equipped with dust collection system. If sweeping is necessary, use dust suppressant such as water. Do not dry sweep dust accumulation or use compressed air for clean up. These procedures will help minimize potential exposures.

DISPOSAL: Dispose in sanitary landfill in accordance with local, state and federal requirements.

SECTION VII HANDLING AND STORAGE

HANDLING: Use protective equipment to avoid irritation as described in Section 8.

STORAGE: Warehouse storage should be in accordance with package directions. Material should be kept dry and protected from the elements.

SECTION VIII EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general ventilation and local exhaust ventilation to meet TLV requirements of individual ingredients (see Section 2) and to control dusting conditions.

If cutting or trimming with power equipment, dust collectors and local ventilation should be used.

Avoid unnecessary exposure to dust and handle with care. Keep work area clean of dust and fibers by using an industrial vacuum cleaner with high efficiency filter or wetting down area with water. Never use compressed air and avoid dry sweeping.

EYE PROTECTION: Wear safety glasses with sideshields or goggles to avoid eye irritation.

RESPIRATORY PROTECTION: Wear a NIOSH/MSHA-approved dust

respirator in poorly ventilated areas, where local exhaust is not feasible, if TLV is exceeded, and/or when dusty conditions exist. Avoid prolonged and repeated breathing of dust.

PERSONAL PROTECTIVE EQUIPMENT: Wear tight fitting goggles and gloves when dusty conditions exist. Wear long-sleeved, loose fitting clothing at the neck and wrists and minimize skin contact. Wash work clothing separately from other clothing. Rinse washer thoroughly after use.

SECTION IX PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance and Odor:** Gray, pressed man-made vitreous fiber panel of various colors.
- **Physical State:** Solid
- **Boiling Point:** Not applicable
- **Freezing Point:** Not applicable
- **Melting Point:** 2100° F (1150° C)
- **Specific Gravity (H₂O=1):** Not applicable
- **Solubility in Water:** Not applicable
- **pH Range:** Not applicable
- **Vapor Pressure:** Not applicable
- **Evaporation Rate (in-Butyl Acetate=1):** Not applicable
- **Percent Volatile:** Not applicable
- **Volatile Organic Compounds:** Not applicable

SECTION X CHEMICAL STABILITY

STABILITY: Stable
REACTIVITY: Not reactive
INCOMPATIBILITY: Not known
HAZARDOUS POLYMERIZATION: Not applicable
HAZARDOUS DECOMPOSITION: Carbon dioxide, and other trace pyrolysis products typical of decomposition of any organic compound.

SECTION XI TOXICOLOGICAL INFORMATION

ACUTE DATA:
SLAG WOOL FIBER (65997-17-3)
Oral LD₅₀RAT: Not determined
Dermal LD₅₀RAT: Not determined
Skin Irritation: Mechanical Irritant
Eye Irritation: Mechanical Irritant
Contact with this material may cause temporary eye and skin irritation (mechanical). When products are handled continually, the skin irritation generally diminishes.
Chronic Data: Prolonged and repeated overexposure to respirable crystalline silica may result in lung disease (i.e., silicosis) and/or lung cancer. Persons with chronic or systemic skin or eye disease should use extra ordinary precautions and wear all personal protective equipment when working with this product. *Fiber Glass and Mineral Wool Fiber.* In October 2001, the International Agency for Research on Cancer (IARC) classified fiber glass wool as Group 3 (not classifiable as to carcinogenicity to humans).

SECTION XII ECOLOGICAL INFORMATION

This product is not expected to have an adverse effect on the environment.

SECTION XIII DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of material in accordance with federal, state, and local regulations.
WASTE NUMBERS: No EPA Waste Numbers are applicable for this product's components.

SECTION XIV TRANSPORT INFORMATION

U.S. DOT INFORMATION: Not a hazardous material per DOT shipping requirements. Not classified or regulated.

SECTION XV REGULATORY INFORMATION

USA REGULATIONS:

All ingredients of this product are included in the U.S. Environmental Protection Agency's Toxic Substances Control Act Chemical Substance Inventory.

CARCINOGENICITY CLASSIFICATION OF INGREDIENTS:

Material	IARC	NTP
Mineral Wool Fiber	Group 3	None
Fibrous Glass	Group 3	None
Crystalline Silica	Group 1	Anticipated

Fiber Glass Wool: In October 2001, the International Agency for Research on Cancer (IARC) classified fiber glass wool as Group 3 (not classifiable as to carcinogenicity to humans). **Mineral Wool Fiber:** In October 2001, the International Agency for Research on Cancer (IARC) classified fiber glass wool as Group 3 (not classifiable as to carcinogenicity to humans). **Crystalline Silica:** Long term exposure to crystalline silica dust in concentrations higher than the recommended PEL or TLV may cause silicosis. NTP has classified respirable crystalline silica as a substance that may be anticipated to be a carcinogen. IARC has established a group 1 classification to crystalline silica as a known carcinogen to humans.

SECTION XVI OTHER INFORMATION

INFORMATION FOR HANDLING AND IDENTIFICATION OF CHEMICAL HAZARDS

NFPA Ratings: Health: 0 Fire: 0 Reactivity: 0 Other: N/A
HMIS Ratings: Health: 1 Fire: 0 Reactivity: 0
Personal Protection: Use eye and skin protection. Use NIOSH/MSHA - approved respiratory protection when necessary.
0 = Minimal Hazard 1 = Slight Hazard 2 = Moderate Hazard
3 = Serious Hazard 4 = Severe Hazard

⚠ WARNING:

Sustained high level exposure to crystalline silica is thought to increase the risk of lung cancer. Dust exposure can cause temporary eye, skin and respiratory tract irritation. Avoid creating dust and install in well ventilated area. Cut and trim with razor knife or hand saw to minimize dust levels. Using power tools for cutting will generate high dust levels. Power tools should be equipped with dust collection system. Use NIOSH/MSHA-approved dust respirator. Avoid dust contact with eyes and skin. Wear eye protection and long-sleeve, loose fitting clothing closed at the neck and wrists. Wash work clothing separately from other clothing. Rinse washer thoroughly.

KEEP OUT OF REACH OF CHILDREN THIS PRODUCT CONTAINS NO ASBESTOS

FIRST AID: For skin irritation, rinse skin with cool water, followed by washing with soap and warm water. For eye irritation, flush eyes thoroughly with water for 15 minutes. If irritation continues, or product is swallowed, consult a physician. Additional product safety information is available on the Thermafiber web site, www.thermafiber.com or by calling (260) 563-2111.

Key/Legend

ACGIH	American Conference of Government Industrial Hygienists
CAS	Chemical Abstracts Service (Registry Number)
DOT	United States Department of Transportation
EPA	United States Environmental Protection Agency
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration 10/07
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NTP	National Toxicology Program
OSHA	Occupational Health and Safety Administration
PEL	Permissible Exposure Limit
TLV	Threshold Limit Value