

MATERIAL SAFETY DATA SHEET



Product: FIBER GLASS INSULATION

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SECTION I. - MATERIAL IDENTIFICATION

Description: Phenolic resin bonded fibrous glass insulation

Chemical Name: NA

Common Name: Fiber Glass Insulation

Chemical Formula: NA

Chemical Family: NA

Other Designations (Synonyms):

THIS DATA IS APPLICABLE TO ALL KNAUF BONDED AND CURED FIBROUS GLASS PRODUCTS INCLUDING:

Pipe Insulation*	Acoustical Board
Pipe & Tank Insulation*	Black Blanket Insulation
Insulated Board*	Rigid Duct Liner
Elevated Temperature Board, Panel, Blanket*	Metal Building Insulation & Filler
Fabrication Board*	OEM Blanket
Hullboard*	Flexible Duct Material
Amber Blanket Insulation	Water Heater Insulation
Wall Insulation	Manufactured Housing
Air Duct Board	Commercial Building Insulation
Duct Wrap	Unfaced Residential Insulation
Duct Liner M	Kraft Faced Residential Insulation
Equipment Liner M	Foil Faced Residential Insulation
Linear Ceiling Diffuser Blanket	FSK Foil Faced Residential Insulation
KN Series	Sill Sealer

*See "Heat-up Precautions" in Section IX

While the information and recommendations set forth herein are believed to be accurate as of the date of preparation, THE MANUFACTURER MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON. For additional information contact: Mark Sullivan, Health and Safety, (317) 398-4434.

SECTION II. - INGREDIENTS AND EXPOSURE LIMITS

Ingredient Name	CAS Number	%	Exposure Limits
Fibrous Glass	65997-17-3	83-97	1 fiber/cc* TLV: 10 mg/m ³ - Fibrous Glass Dust
Urea Extended Phenolic Resin (cured)	25104-55-6	3-17	PEL: NA TLV: NA

*Based on prudence and not significant risk, Knauf recommends a maximum exposure level of 1 fiber/cc (8 hour TWA, NIOSH 7400 B method) for fibrous glass.

SECTION III. - PHYSICAL DATA

PRODUCT USES: Thermal Insulation

APPEARANCE AND ORDER: Yellow or black fibrous product, no appreciable odor. Some products have vinyl, kraft paper, foil or glass cloth facing.

BOILING POINT: N/A

MELTING POINT: N/A

EVAPORATION RATE: N/A

VAPOR PRESSURE: N/A

VAPOR DENSITY: N/A

PURE/MIXTURE: Mixture

WATER SOLUBILITY: Insoluble

PHYSICAL STATE: Solid

SPECIFIC GRAVITY: Variable

SECTION IV. - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT [method]: NA

LEL: NA

UEL: NA

AUTO IGNITION TEMP.: Not Determined

FIRE AND EXPLOSION HAZARDS:
Resin, paper or plastic facings will burn causing dense acrid smoke. Vinyl faced products in fire conditions give off hydrogen chloride, a highly irritating gas.

EXTINGUISHING METHOD: Use water, foam, dry chemical or carbon dioxide.

FIRE FIGHTING PROCEDURES: Wear self contained breathing apparatus and protective clothing. Dense smoke may limit visibility in enclosed areas.

COMBUSTION PRODUCTS: CO, CO2, Hydrocarbon particulate.

SECTION V. - HAZARDS IDENTIFICATION

Hazard Summary: The International Agency for Research on Cancer (IARC) has classified fiber glass wool as a possible cancer causing agent to humans. This classification was substantially based on experiments in which fiber glass wool was injected or implanted in animals. However, animal inhalation studies with exposure to large quantities of fiber glass have not demonstrated an association between fiber glass and lung cancer. Additionally, large scale human mortality studies of U.S. and European fiber glass wool factory workers did not provide conclusive evidence that fiber glass wool caused cancer in humans. However, IARC does regard it prudent to treat any material for which there is sufficient evidence of carcinogenicity in animals as if it were a possible human carcinogen. Therefore, IARC has classified respirable dust from this product in Group 2B (possibly carcinogenic).

Even though the present epidemiological data is not conclusive, OSHA's interpretation of it requires that a warning label be placed on the product. This warning identifies a possible hazard while not identifying the degree of risk. OSHA believes the risk is not a threat to your health as long as the exposure to fiber glass wool is less than 1 fiber/cubic centimeter (cc) TWA (8 hour time weighted average). Fiber glass wool exposure in the home, commercial buildings, and manufacturing facilities are generally found to be well below 1 fiber/cc. Installers and fabricators should be aware of their exposure levels and take appropriate actions if needed per recommended work practices. Knaf STRONGLY recommends following all safe work practices while working with and/or installing fiber glass wool products.

FIBER GLASS INSULATION

MEDICAL CONDITIONS AGGRAVATED: Pre-existing upper respiratory and lung diseases may be aggravated by dust. The product is a mechanical irritant for skin, eyes and upper respiratory system.

EFFECTS OF OVEREXPOSURE: Itching and irritation of the upper respiratory tract.

ACUTE HEALTH EFFECTS: Mechanical irritation of the skin, eyes, and upper respiratory system.

CHRONIC HEALTH EFFECTS: There are confirmed reports of contact dermatitis. A 1987 epidemiological study of more than sixteen thousand U.S. man-made vitreous fiber manufacturing workers has shown no statistically significant increased risks of malignant or nonmalignant diseases. A 1990 update of this study reported a small, statistically significant increase in respiratory cancer among workers when compared with populations in their communities. Confounding factors (such as smoking, exposure to other hazardous materials etc.) are thought to be responsible for this small apparent increase, and an expanded study is currently underway to investigate other possible contributing factors.

PRIMARY ENTRY ROUTE: Inhalation, skin and eye contact.

TARGET ORGANS: Skin, eyes and respiratory system.

IRRITANCY: Product can be a mechanical irritant.

SENSITIZATION: There have been reports of reactions among persons with extreme chemical hypersensitivity.

SECTION VI. - REACTIVITY DATA

STABILITY: Material is stable.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBLE CHEMICALS: Hydrofluoric acid will dissolve glass.

CONDITIONS TO AVOID: None in designed use.

DECOMPOSITION PRODUCTS: Facing and binder burns or decomposes in a fire. Decomposition products are carbon monoxide, carbon dioxide, carbon particulate and traces of hydrogen cyanide from pyrolysis of the resin. The vinyl faced products will emit hydrogen chloride in a fire.

SECTION VII. - SPILL, LEAK & DISPOSAL PROCEDURES

SPECIAL HANDLING: Keep material dry and minimize the generation of dust.

SPILL OR LEAK PROCEDURES: Pick up and discard large pieces. Vacuum clean dust. Use a dust suppressant if sweeping is necessary.

WASTE DISPOSAL: This material is not regulated under "RCRA" hazardous waste regulations. May be disposed in landfill. Comply with federal, state and local regulations.

SECTION VIII. - FIRST AID/PERSONAL PROTECTION

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Itching, irritation and soreness of the upper respiratory system.

EMERGENCY & FIRST-AID PROCEDURES:

EYES: Flush eyes with flowing water for at least 15 minutes. If irritation persists consult a physician.

SKIN: Frequent rinsing of skin surface with water to remove accumulated fibers will minimize irritation. If irritation persists consult a physician. Treat as a mechanical irritant.

INHALATION: Remove to fresh air. Drink water to clear throat and blow nose to evacuate fibers.

INGESTION: Non hazardous when ingested. May cause discomfort or irritation of the GI tract.

SECTION VIII. - FIRST AID/PERSONAL PROTECTION cont'd from page 3**PERSONAL PROTECTION**

EYE PROTECTION: Safety glasses, goggles or faceshields should be worn when materials are being handled or applied.

GLOVES: Gloves are recommended.

SPECIAL CLOTHING: Long-sleeved, loose fitting clothing and head covering are recommended. Wash work clothes separately from other clothing to prevent glass fiber migration. Rinse washer thoroughly.

RESPIRATOR: A disposable mask such as 3M model 9900 or its equivalent is recommended.

WORKPLACE VENTILATION: If sufficient natural ventilation is not available, use mechanical ventilation to assure exposures to airborne dust remain below the recommended levels.

SECTION IX. - SPECIAL PRECAUTIONS

HEAT-UP PRECAUTIONS: During initial heat-up of high temperature insulation products to temperatures above 350° F, an acrid odor and smoke may be given off. Adequate ventilation should be provided to protect against harmful fumes. In confined spaces, occupants should wear self-contained breathing apparatus during this period.

SECTION X - OTHER APPLICABLE REGULATIONS

CALIFORNIA PROP. 65 STATEMENT: Fiber Glass Wool has been classified as a possible carcinogen if inhaled.