

UNITHERM INSULATION SYSTEMS MATERIAL SAFETY DATA SHEET

1. COMPANY AND PRODUCT INFORMATION

Company Name:
UniTherm Insulation Systems
711 Jones Street
Lewisville, TX 75057
Phone: 972-436-1401 Fax: 972-436-0112

Product:
Fiber Glass Insulation
#8 Fiber

2. HAZARDOUS INGREDIENTS

Fiber Glass Wools (CAS#: 65997-17-3)	%	Exposure Limits
	50-99	5mg/m3 TWA respirable fraction OSHA 15-mg/m3 TWA total dust (OSHA) 1 fiber/cc TWA (ACGIH)
Binder may be either: (CAS#: 25104-55-6) Urea extended phenol-formaldehyde resin (cured) Or / (CAS#: 25212-25-3) Urea extended phenol-melamine-formaldehyde Resin (cured)	1-20	Not established
	1-20	Not established
Range Spin-Glas binder is: (Not assigned) Phenol-formaldehyde resin (cured)	1-6	Not established

3. HAZARD IDENTIFICATION

Appearance and Odor:

Gold-to-yellow, orange, black or black with a green core fibrous blanket, with or without non-woven facings: no significant odor. Under normal conditions of use this product is not expected to create any unusual emergency hazards.

HAZARD IDENTIFICATION CONT.

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Potential Health Effects:	Breathing dust from this product may cause a scratchy throat, congestion and slight coughing. Getting dust or fibers on the skin, or in the eyes may cause itching, rash or redness. Breathing large amounts of dust or fibers from this product may lead to chronic health effects.
Acute (Short-Term) Health Effects:	Dust from this product is a mechanical irritant, which means that it may cause irritation or scratchiness of the throat, and /or itching in the eyes and skin
Chronic (Long-term) Health Effects:	Studies have been conducted to determine the long-term health effect of fiberglass. The results of a worker health study that looked at respiratory health of fiberglass manufacturing workers published in 1993, and the results indicated no lung disease (“no adverse clinical, functional or radiographic signs of effects”). Studies of fiberglass manufacturing workers have shown a small excess of lung cancer when compared to local control groups. However, there is no evidence that this excess is related to breathing fiber glass. Six previous chronic inhalation studies exposing animals to special purpose glass fibers have not shown any evidence of disease. However, two types of special purpose glass fibers have recently shown fibrosis and carcinogenic responses in separate chronic animal inhalation studies. The fiber glass products listed on this MSDS do not contain either of these fibers. In other fiber glass studies, animals exposed to artificial means (such as fiber glass injected in the lungs or chest cavity) did develop tumors.
Target Organs:	Throat, lungs, skin & eyes
Primary Routes of Exposure:	Inhalation (breathing dust or fibers), skin or eye contact Pre-existing chronic respiratory, skin or eye diseases or conditions may be aggravated with exposure to fiber glasses

4. FIRST AID MEASURES

Inhalation:	Remove to fresh air. Drink water to clear throat, and blow nose to remove fibers and dusts
Skin:	Wash gently with soap and water to remove dust and fibers. Wash hands before eating or using the restroom
Absorption:	N/A
Ingestion:	This product is not intended to be ingested or eaten. If this product is ingested, irritation of the gastrointestinal (GI) tract may occur, and should be treated symptomatically. Rinse mouth with water to remove fibers, drink plenty of water to help reduce irritation. No chronic effects are expected following ingestion
Eyes:	Do not rub or scratch eyes. Dust particles may cause the eye to be scratched. Flush eyes with running water for at least 15 minutes. If irritation persists seek medical attention

5. FIRE AND EXPLOSION DATA

There is no potential for fire or explosion, 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.

Flash Point:	N/A	LEL: N/A	UEL: N/A
Boiling Point:	N/A	Vapor Density: N/A	
Percentage Volatile:	N/A	Vapor Pressure: N/A	
Melting Point:	>704 degrees C / 1300 degrees F		
Specific Gravity: (Water = 1)	Variable	Evaporation rate: N/A	
Solubility in water:	Negligible	Volatile by Volume: (%)	0

Extinguishing Media: Carbon dioxide (Co2), water, water fog or dry chemical

6. PERSONAL PROTECTION

Protective equipment should be provided as necessary to prevent irritation of the throat eyes and skin and to keep exposures below the applicable exposure limits.

Eyes: Safety glasses with side shields are recommended to keep dust fibers out of eyes.

Skin: Leather or cotton gloves should be worn to prevent skin contact and irritation. Barrier creams may also be used to reduce skin contact and irritation caused by fiberglass.

Respiratory: A respirator should be used if ventilation is unavailable, or is inadequate for keeping dust and fiber levels below the applicable exposure limits. In those cases use a NIOSH- certified disposable or reusable particulate respirator with efficiency rating of N95 or higher (under 42 CFR 84) when working with this product. For exposures up to five times the established exposure limits use a quarter-mask respirator, rated N95 or higher; and for exposures up to ten times the established exposure limits use a half-mask respirator (e.g., MSA's DM-11, Racal's Delta N95, 3M's 8210) rated N95 or higher. Operations such as sawing, blowing, tear out and spraying may generate airborne fiber concentrations requiring a higher level of respiratory protection. For exposures up to 50 times the established exposure limits use a full-face respirator rated N99 or higher.

Ventilation: Local exhaust ventilation should be provided at areas of cutting to remove airborne dust and fibers. General dilution ventilation should be provided as necessary to keep airborne dust and fibers below the applicable exposure limits and guidelines. A professional industrial hygienist should evaluate the need for ventilation systems, while the design of specific ventilation a professional engineer should conduct systems.

7. STABILITY AND REACTIVITY

This product is not reactive. The decomposition products from this material are those that would be expected from any organic (carbon-containing) material and are mainly derived from pyrolysis, or burning of the resin. These decomposition products may include carbon dioxide, carbon monoxide, carbon particles, and traces of hydrogen cyanide.

8. ACCIDENTAL SPILL/RELEASE MEASURES

Containment Procedures: Pick up large pieces. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep accumulation. These procedures will help minimize potential exposures.

Disposal: Wastes are not hazardous as defined by the Resource Conservation and Recovery Act (RCRA: 40CFR 261). Comply with federal, state and local regulations for disposal of fiber glass wool products. If you are unsure of the regulations, contact your local Public Health Department, or local office of the Environmental Protection Agency (EPA).

9. HANDLING AND STORAGE

Handling: Prevent the spread of fiberglass dust and avoid dust generation conditions. Store and use in a manner that will prevent airborne particulates in the workplace. Use protective gloves, safety glasses or goggles or face shields. Wear long sleeve clothing, work aprons and smocks are recommended. NOISH approved air supplied or self-contained respirator. Recommend wash work clothes separately and wipe out washer and the end of each cycle. Use proper hygienic procedures at all times when working with fiberglass products.

Storage: Material should be kept dry, and protected from the elements.

**UniTherm Insulation Systems
Material Safety Data Sheet**

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Company Name: UniTherm International Inc 711 Jones Street Lewisville, TX 75057 Phone: 972-436-1401 Fax: 972-436-0112	Product: Silica 600 Tan in color/ No Odor
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2. HAZARDOUS INGREDIENTS

Fibrous Glass	ACGIH TLV 10 mq/m ³ of air for fiber diameters Less than 7 microns
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3. PHYSICAL/CHEMICAL CHARACTERISTICS

Characteristic	Method	Values*
Weight	ASTM-D-3776-96	18.0 oz/sy +/- 10%
Thickness	ASTM-D-1777-96	.030" +/- 10%
Breaking Strength	ASTM-D-579-97	Warp - 560 lbs/in Fill - 350 lbs/in
Temperature Resistance	FED SPEC HHB 100B	Continuous Use 1800 degrees F Melt Temperature 3000 degrees F Linear Shrinkage 5% @ 1800 degrees F
Base Fabric and Weave		Silica/8 Harness Satin
Abrasion Resistance	MIL-C-24576A	750 Cycles min.
Width - 35" (88.9cm)	Length - 50 yds (45.72 meters)	

4. FIRE FIGHTING MEASURES

Flash Point: 250 degrees C by TOC

Auto Ignition Temperature: N/A

Extinguishing Media: Water, carbon dioxide, dry chemical

Flammability Limits (%): LEL: N/A UEL: N/A

Special Fire Fighting Instructions: Wear self-contained breathing apparatus

Packaging and surrounding materials may be combustible. Use suitable extinguishing agent for surrounding combustible materials.

5. FIRST AID MEASURES

Inhalation: May inhale dust while cutting, move individual to fresh air, seek medical attention if irritation persists.

Skin Contact: If skin becomes irritated, do not rub or scratch exposed skin. Wash with a mild soap and running water, use a washcloth to help remove fibers/dust. Change into clean clothing. If irritation persists seek medical attention.

Eye Contact: Flush eyes with flowing water for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: N/A

6. HEALTH HAZARD DATA

This material is not known to be a carcinogen

7. HANDLING, STORAGE AND DISPOSAL

Handling: Material is a solid, use adequate material handling equipment. Long sleeve clothing, cotton gloves and safety goggles

Storage: No special precautions needed

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

8. REACTIVITY/ STABILITY DATA

- Conditions to avoid: Temperatures above 250 degrees C
- Incompatibility: Strong oxidizing agents
- Decomposition: Hydrogen fluoride, carbon monoxide, carbon dioxide

9. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Ventilation: General dilution ventilation and/or local exhaust ventilation should be provided, as necessary to maintain exposures below PEL's or TLV's. Adequate ventilation must be provided at elevated temperatures.
- Eye Protection: Safety glasses, goggles or face shields should be worn whenever handling materials
- Protective Clothing: Wear loose fitting, long sleeved shirt that covers to the base of the neck and long pants
- Work/Hygienic Practices: Handle in accordance with good industrial hygiene and safety practices

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Material Safety Data Sheet**



1. COMPANY & PRODUCT INFORMATION

Company Name:
UniTherm Insulation Systems
711 Jones Street
Lewisville, TX 75057
Phone: 972-436-1401 Fax: 972-436-0112

Product:
Teflon FCF-1800 Cloth
Blue, Grey or Green in Color
No Odor

2. HAZARDOUS INGREDIENTS

Fibrous Glass

ACGIH TLV
10mg/m³ of air
for fiber diameters
Less than 7 microns

3. HAZARD HEALTH DATA

This material is not known to be a carcinogen

4. PHYSICAL DATA

Boiling Point: N/A
Melting Point: >400 degrees F
Percentage Volatile: N/A
Solubility in Water: Negligible
Appearance & Odor: Blue or Grey both sides / no odor

Specific Gravity (water-1): 1.60
Vapor Density: N/A
Vapor Pressure: N/A
Evaporation Rate: N/A

5. FIRE AND EXPLOSION DATA

Flash Point: > 250 degrees C by TOC
Auto Ignition Temp: N/A
Flammability Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon Dioxide, water or dry chemical
Special Fire Fighting Instructions: Wear self-contained breathing apparatus.
Material does not burn without an external source of fuel under normal conditions, will burn in an atmosphere containing in excess of 98% oxygen if an ignition source is present.

6. REACTIVITY / STABILITY DATA

Conditions to avoid:	Temperatures above 250 degrees C
Incompatibility:	Strong oxidizing agents
Decomposition:	Hydrogen fluoride, carbon monoxide, carbon dioxide

7. FIRST AID MEASURES

Inhalation:	May inhale dust while cutting, move individual to fresh air, seek medical attention if irritation persists
Skin Contact:	If skin becomes irritated, do not rub or scratch exposed skin. Wash with a mild soap and running water, use a washcloth to help remove fibers/dust. Change into clean clothing. If irritation persists seek medical attention.
Eye Contact:	Flush eyes with flowing water for at least 15 minutes. Seek medical attention if irritation persists.
Ingestion:	N/A

8. HANDLING, STORAGE AND DISPOSAL

Handling:	Material is a solid, use adequate material handling equipment. Long sleeve clothing, cotton gloves and safety glasses or goggles
Storage:	No special precautions needed
Disposal:	Dispose of in accordance with federal, state and local regulations as a solid non-hazardous waste

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- Ventilation: General dilution ventilation and/or local exhaust ventilation should be provided, as necessary to maintain exposures below PEL's or TLV's. Adequate ventilation must be provided at elevated temperatures.
- Eye Protection: Safety glasses, goggles or face shield should be worn whenever handling materials
- Protective Clothing: Wear loose fitting, long sleeved shirt that covers to the base of the neck and long pants.
- Work/Hygienic Practices: Handle in accordance with good industrial hygiene and safety practices.