

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Company Identification

UniTherm International Inc.  
711 Jones Street  
Lewisville, Texas 75057

### **EMERGENCY TELEPHONE NUMBER:**

For emergency involving spill, leak, fire, exposure, or accident call CHEMTREC (800) 424-9300, day or night

### Product Identification

**Product Name:** Ceramic Fiber Blanket  
**Common Name(s):** Ceramic fiber, Aluminosilicate Refractory Fiber, Refractory Ceramic Fiber (RCF)

## 2. HAZARDS IDENTIFICATION

- May cause temporary, mild mechanical irritation to the eyes, skin, nose and/or throat.
- Pre-existing skin and respiratory conditions may be aggravated by exposure.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Indexes:  $\text{Al}_2\text{O}_3 + \text{SiO}_2 > 97\%$   
 $\text{Al}_2\text{O}_3 > 45\%$   
 $\text{Fe}_2\text{O}_3 < 1.0\%$   
 $\text{Na}_2\text{O} + \text{K}_2\text{O} \leq 0.5$

## 4. FIRST AID MEASURES

**Eye Contact:** If eyes become irritated, wash immediately with large amounts of lukewarm water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Do not rub eyes. Get medical attention if irritation persists.

**Skin Contact:** If skin becomes irritated, do not rub or scratch exposed skin. Wash area of contact thoroughly with soap and water. Using a skin cream or lotion after washing may be helpful. Change into clean clothing.

**Ingestion:** Relocate affected individual to an environment of clean and fresh air. Drink plenty of water seek medical help if symptoms persist.

**Inhalation:** Remove affected individual to a dust free place; seek medical help if irritation persists.

**Notes to physicians: Skin and respiratory effects are the result of mechanical irritation: fiber exposure does not result in allergic manifestations.**

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## 5. FIRE FIGHTING MEASURES

Non-combustible (does not burn) product.  
Auto-ignition temperature: none

NFPA Unusual Hazards: none

Unusual fire and explosion hazards: none

Extinguishing Media: use proper extinguishing media for the surrounding fire.

Fire fighting protective equipment: wear full bunker gear including positive pressure self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

Avoid creating airborne dust. Maintain routine housecleaning procedures. Vacuum only with HEPA filtered equipment, if sweeping is necessary, use a dust suppressant and keep material in closed containers. Do not use compressed air for cleanup. Workers should wear gloves, goggles and approved respirator. Avoid cleanup procedures that could cause water pollution.

## 7. HANDLING AND STORAGE

### CLEAN-UP:

Clean up dust carefully. Use wet sweeping or high efficiency vacuum to remove dust. Do not use compressed air. During after-service removal activities, wet exposed material frequently to minimize airborne dust. A surfactant may be added to the water to improve the wetting process. Use only enough water to wet the insulation. Do not allow water to accumulate on floors.

### EMPTY CONTAINERS:

Product packaging may contain residue. Do not reuse.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components OSHA Supplier:

Alumino--silicate fiber None established

### ACGIH TLV:

Aluminosilicate fiber—none established

For Alumino--silicate fiber, refer to OSHA guidance regarding "Particulates not otherwise Regulated" (PNOR). Control airborne dust levels as follows:

### Components Particle size OSHA:

PNOR total dust 15mg/m<sup>3</sup>

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Respirable dust 5mg/m<sup>3</sup>

ACGIH particulates not otherwise classified (PNOC)—INHALABLE

PARTICULATE: 10mg/m<sup>3</sup>. RESPIRABLE PARTICULATE: 3mg/m<sup>3</sup>

Other Occupational Exposure Levels (OEL)

RCF-related occupational exposure limits vary from country to country. Listed here are a few regulatory OEL examples: Australia--0.5f/cc; Austria—0.5f/cc;

Canada—0.5 to 1 f/cc; Denmark—1 f/cc

France—0.6 f/cc; Germany—0.5 f/cc; Netherlands—1 f/cc; United Kingdom—2 f/cc

Example is: RCFC REG 0.5 f/cc. The objectives and criteria underlying each of these OEL decisions also vary. The evaluation of occupational exposure limits and determining their relative applicability to the workplace is performed on a case-by-case, by a qualified industrial hygienist.

### **Eye Protection:**

In case of overhead work, wear goggles or safety glasses with side shields to prevent eye contact.

### **Skin Protection:**

Wear gloves, head covering and full body clothing as necessary to prevent skin irritation.

### **Respiratory Protection:**

When effective engineering and administrative controls are insufficient, the use of appropriate respiratory protection, pursuant to the requirements of OSHA 1910.134 and 29 DFR 1926.103 for the particular hazard or airborne concentrations in the work place, it is recommended. For dust concentrations below applicable exposure limit value.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Oxidizing properties:** None

**Chemical family:** Aluminosilicate fibers

**Chemical Indexes:**  $Al_2O_3 + SiO_2 > 97\%$

$Al_2O_3 > 45\%$

$Fe_2O_3 < 1.0\%$

$Na_2O + K_2O \leq 0.5$

**Boiling Point:** N/A

**Odor:** No Odor

**Solubility:** N/A

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**Melting Pt.:** 3200°F  
**Vapor Density:** N/A

## 10. STABILITY AND REACTIVITY

**Chemical stability:** stable under conditions of normal use.

**Incompatibility:** hydrofluoric acid, and concentrated alkali.

## 11. TOXICOLOGICAL INFORMATION

Epidemiological studies conducted by institution of human environment protection in China has provided no evidence that there is a direct cause-and effect relationship between cumulative exposure to aluminosilicate fibers and lung cancers or particular pulmonary diseases.

However recent toxicological experiments using physiological exposure method (inhalation) have produced findings of respiratory disease in rodents, Aluminosilicate refractory fiber has found to be a rodent carcinogen under the conditions that the rodents are exposed to high levels of the material (75—115fibers/cc) on a basis of lifetime duration.

## 12. ECOLOGICAL INFORMATION

No data is available on adverse effects of the material on the environment.

## 13. DISPOSAL CONSIDERATIONS

As produced, this material is usually accepted for disposal at most sites licensed for the disposal of industrial waste. Check applicable regulations and waste site policies prior to disposal. Waste should be placed in sealed containers for disposal.

In case of contamination, by other materials classified as hazardous waste, expert guidance should be sought.

## 14. TRANSPORT INFORMATION

Product should remain in sealed containers during transportation.

## 15. REGULATORY INFORMATION

**CERCLA:** the aluminosilicate fibers of this product have an average diameter of 2-4 um and are not considered CERCLA hazardous substances (CERCLA 40 CFR302)

**Clean Air Act (CAA):** thermal insulation fibers are composed of (RCF) with an average diameter greater than 1 micron, and therefore are not considered hazardous air

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pollutants.

**Toxic Substances Control Act (TSCA):** all substances in this product are listed, as required, on the TSCA chemical inventory.

### International Regulations:

#### **Canadian Workplace Hazardous Materials Information System (WHMIS):**

No Canadian Workplace Hazardous Materials Information System categories apply to this product.

#### **Canadian Environmental Protection Act (CEPA):**

All substances in this product are listed, as required, on the Domestic Substances List (DSL). Chemicals, which are listed on the Non—Domestic Substances list:

## 16. OTHER INFORMATION

Removal after service: Under sustained and steady high temperature over 1800°F, this material will possibly transform to crystalline silica (ciystobalite) in exposed portions. Prolonged or repeated exposure to respirable crystalline silica dust may lead to lung diseases. IARC has listed crystalline silica in Category 2A a probable carcinogen (“crystalline silica inhaled in the form of quartz or cristobalite from occupational source is carcinogenic to humans” IARC monograph 68, June 1997 p 210—211). The permissible exposure limit(PEL) set by OSHA for respirable cristobalite is 0.05mg/m<sup>3</sup>. Whenever possible follow section 8 procedures for exposure controls and personal protection.

### Abbreviations:

CERCLA: comprehensive environmental response compensation and liability act of 1980

CAS: Chemical abstracts service

F/cc: fibers per cubic centimeter

HMS: Hazardous Material information system

Mg/m<sup>3</sup>: Milligrams per cubic meter of air

NIOSH: National institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

PEL: permissible exposure limit

SARA: super amendments and reauthorization act

TSCA: toxic Substances Controls Act

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### Product Identification

**Product Name:** Fiberglass Tape  
**Common Name(s):** Fiberglass Strap & Binding, Woven Unidirectional Fiberglass Fabric (A-Style Warp Unidirectional), Stitchbonded Fiberglass Fabric, Woven Fiberglass Fabric

## 2. HAZARDS IDENTIFICATION

**Route of Entry:** This material may enter the body through inhalation of nuisance dust.

**Target Organs:** Respiratory system

**Inhalation:** Sore, raspy throat

**Skin Contact:** Redness and possible rash; itching

**Eye Contact:** Itching and redness

**Ingestion:** N/A

**NFPA:** Health = 1, Fire = 0, Reactivity = 0

**HMIS III:** H\*1/F0/PH0

### **GHS Signal Word:**

WARNING

### **GHS Classifications:**

Health, Respiratory or skin sensitization, 1 Skin

Health, Skin corrosion/irritation, 2

Health, Serious Eye Damage/Eye Irritation, 2 B

Health, Specific target organ toxicity - Single exposure, 3

### **GHS Phrases:**

H317 - May cause an allergic skin reaction

H315 - Causes skin irritation

H320 - Causes eye irritation

H335 - May cause respiratory irritation

### **GHS Precautionary Statements:**

P264 - Wash \_ thoroughly after handling.

P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.

P337 - If eye irritation persists: \_

P337+313 - Get medical advice/attention

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Common Name</u>	<u>Chemical Name</u>	<u>CAS No.</u>	<u>Wt. %</u>
Non-Hazardous Ingredients			
Fiber Glass Continuous Filament (non respirable)	Fibrous Glass	65997-17-3	94-100
Size	Size	None	0-2
Polyester Yarn	Polyester Yarn	None	0-4

**Note:** See Section 8 of MSDS for exposure limit data for these ingredients.

### 4. FIRST AID MEASURES

**Inhalation:** Move person to fresh air. Seek medical attention if irritation persists.

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

**Skin Contact:** Wash with mild soap and running water. Use a washcloth to help remove fibers. To avoid more irritation, do not rub or scratch affected areas. Rubbing or scratching may force fibers into skin. Seek medical attention if irritation persists.

**Ingestion:** Ingestion of this material is unlikely. If it does occur, watch the person for several days to make sure that intestinal blockage does not occur.

### 5. FIRE FIGHTING MEASURES

**Flash Point (Method Used):** >250 C by TOC

**Flammability Limits (%):** None.

**Auto Ignition Temperature:** Not Applicable.

**Extinguishing Media:** Water, foam, CO2 or dry chemical.

**Unusual Fire and Explosion Hazards:** None known.

**Fire Fighting Instructions:** Use self contained breathing apparatus (SCBA) in a sustained fire.

**Hazardous Combustion Products:** Primary combustion products are carbon monoxide,

carbon dioxide and water. Other undetermined compounds could be released in small quantities.

## 6. ACCIDENTAL RELEASE MEASURES

**Land Spill:** Scoop up material and put into suitable container for disposal as a nonhazardous waste.

**Water Spill:** This material will sink and disperse along the bottom of waterways and ponds. It can not easily be removed after it is waterborne; however, the material is non-hazardous in water.

**Air Release:** This material will settle out of the air. If concentrated on land it can then be scooped up for disposal as a non-hazardous waste.

## 7. HANDLING AND STORAGE

**Handling Precautions:** Use adequate material handling equipment.

**Storage Requirements:** Store in dry place. Use may be at temperature extremes based on product data, but storage should be at ambient temperature.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient	OSHA PEL (8-hr TWA)	ACGIH TLV (8-hr TWA)
Fiber Glass Continuous Filament	5 mg/m <sup>3</sup> (respirable dust)	10 mg/m <sup>3</sup> (inhalable)
	15 mg/m <sup>3</sup> (total dust)	3 mg/m <sup>3</sup> (respirable)
	1 fiber/cc (proposed)	
Size	None Established	None Established
Polyester Yarn	5 mg/m <sup>3</sup> (respirable dust)	10 mg/m <sup>3</sup> (inhalable)
	15 mg/m <sup>3</sup> (total dust)	3 mg/m <sup>3</sup> (respirable)

**Ventilation:** General dilution ventilation and/or local exhaust ventilation should be provided as necessary to maintain exposures below regulatory limits.

### Personal Protection:

**Respiratory Protection:** A properly fitted NIOSH/MSHA approved disposable dust respirator such as the 3M model 8210 (or 8710) or model 9900 (in high humidity



environments) or equivalent should be used when: high dust levels are encountered; the level of glass fibers in the air exceeds the OSHA permissible limits; or if irritation occurs. Use respiratory protection in accordance with your company's respiratory protection program, local regulations and OSHA regulations under 29 CFR 1910.134.

**Skin Protection:** Loose fitting long sleeved shirt that covers to the base of the neck, long pants and gloves. Skin irritation is known to occur chiefly at pressure points such as around neck, wrist, waist and between fingers.

**Eye Protection:** Safety glasses or goggles.

**Work and Hygienic Practices:** Handle using good industrial hygiene and safety practices. Avoid unnecessary contact with dusts and fibers by using good local exhaust ventilation. Remove material from the skin and eyes after contact. Remove material from clothing using vacuum equipment (never use compressed air and always wash work clothes separately from other clothing. Wipe out the washer or sink to prevent loose glass fibers from getting on other clothing). Keep the work area clean of dusts and fibers made during fabrication by using vacuum equipment to clean up dusts and fibers (avoid sweeping or using compressed air as these techniques re-suspend dusts and fibers into the air.) Have access to safety showers and eye wash stations.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Vapor Pressure (mm Hg @ 20 °C):** Not Applicable

**pH:** Not Applicable

**Vapor Density (Air=1):** Not Applicable

**Specific Gravity (Water=1):** 2.60

**Boiling Point:** Not Applicable

**Solubility in Water:** Insoluble

**Viscosity:** Not Applicable

**Appearance:** Solid

**Physical State:** Solid

**Odor Type:** None

**Freezing Point:** Not Applicable

**Evaporation Rate (n-Butyl Acetate=1):** Not Applicable

## 10. STABILITY AND REACTIVITY

**Stability:** Material is stable.

**Conditions to Avoid:** None known.

**Materials to Avoid:** Strong-oxidizing agents.

**Hazardous Decomposition:** Carbon monoxide; carbon dioxide

**Hazardous Polymerization:** Will Not Occur.

## 11. TOXICOLOGICAL INFORMATION

**CARCINOGENICITY:** The table below indicates whether or not each agency has listed each ingredients as a carcinogen:

<u>Ingredient</u>	<u>ACGIH</u>	<u>IARC</u>	<u>NTP</u>	<u>OSHA</u>
Fiber Glass	A4	3	No	No
Continuous Filament				
Size	No	No	No	No
Polyester Yarn	No	No	No	No
	<u>LD<sub>50</sub> Oral</u> (g/kg)	<u>LD<sub>50</sub> Dermal</u> (g/kg)	<u>LC<sub>50</sub> Inhalation</u> (ppm, 8 hrs.)	
Fiber Glass				
Continuous Filament	Not Available	Not Available	Not Available	
Size	Not Available	Not Available	Not Available	
Polyester Yarn	Not Available	Not Available	Not Available	

**Fiber Glass Continuous Filament:** The International Agency for Research on Cancer (IARC) in June, 1987, categorized fiber glass continuous filament as not classifiable with respect to human carcinogenicity (Group 3). The evidence from human as well as animal studies was evaluated by IARC as insufficient to classify fiber glass continuous filament as a possible, probable, or confirmed cancer causing material.

## 12. ECOLOGICAL INFORMATION

No known hazards except for airborne fibers caused by nuisance dust. 10 milligrams per cubic meter for fiber diameters less than 7 microns.

## 13. DISPOSAL CONSIDERATIONS

**RCRA Hazard Class:** Non-hazardous.

## 14. TRANSPORT INFORMATION

**DOT Shipping Names:** Not regulated

**Hazard Class or Division:** None

**Secondary:** None

**Identification No.:** None

**Packing Group:** None

**Label(s) required (if not excepted):** None

**Special Provisions:** None

**Packaging Exceptions:** None

**Non-bulk Packaging:** None

**Bulk packaging:** None

**EPA Hazardous Substances:** None

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**RQ:** None

**Quantity Limitations: Passenger Aircraft:** None

**Cargo Aircraft:** None

**Marine Pollutants:** None

**Freight Description:** None

**Hazardous Material Shipping Description:** None

## 15. REGULATORY INFORMATION

**TSCA Status:** Each ingredient is on the Inventory.

**NSR Status (Canada):** Each ingredient is on the DSL.

**SARA Title III: Hazard Categories:**

Acute Health: Yes

Chronic Health: No

Fire Hazard: No

Pressure Hazard: No

Reactivity Hazard: No

**Reportable Ingredients:**

Sec. 302/304: None

Sec. 313: None

**California Proposition 65:** No ingredient is listed.

**Clean Air Act:** No ingredient is listed.

**WHMIS (Canada): Status:** Not Controlled

**WHMIS Classification(s):** None

## 16. OTHER INFORMATION

### Disclaimer:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Individuals should make a determination as to the suitability of the information for their particular purpose(s).

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Company Identification

UniTherm International Inc.  
711 Jones Street  
Lewisville, Texas 75057

### Product Identification

**Product Name:** Black Nomex Thread  
**Common Name(s):** Nomex Aramid Fire Retardant Thread, Nomex Sewing Thread

### **EMERGENCY TELEPHONE NUMBER:**

For emergency involving spill, leak, fire, exposure, or accident call CHEMTREC (800) 424-9300, day or night

## 2. HAZARDS IDENTIFICATION

### **Emergency Overview**

The hazards of this product are associated mainly with its processing. Dust may form explosive mixture in air. High concentrations of dust can irritate eyes, nose and respiratory system and cause coughing and sneezing. Processing meta-aramid products can release Dimethyl Acetamide (DMAC). Hazards related to DMAC include: May be harmful by inhalation (after often repeated exposure). May be harmful in contact with skin (after often repeated exposure). Liver and kidney injuries may occur. Processing para-aramid products can release respirable dust and respirable fibre particulate. Prolonged inhalation of respirable dust and respirable fibre particulate at high concentrations can cause lung damage. Continual rubbing of fibre particulates and dust on the skin can cause a transitory, mild irritation with redness or itching.

### **Potential Health Effects**

#### Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Meta-aramid fiber or meta-aramid fiber blended with para-aramid, antistatic or other synthetic fibers		100 %

### **Exposure limits may be applicable for the following:**

Meta-aramid	25765-47-3
Para-aramid	26125-61-1
Synthetic fibres	
N,N-Dimethylacetamide	127-19-5

### 4. FIRST AID MEASURES

**General advice:** No hazards, which require special first aid measures. If symptoms persist, call a physician. If irritation occurs, flush area thoroughly with water.

### 5. FIRE FIGHTING MEASURES

#### Flammable Properties

**Flash point:** not applicable

**Thermal decomposition:** > 300 °C (> 572 °F)

**Fire and Explosion Hazard:** Hazardous decomposition products formed under fire conditions.

**Extinguishing Media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Firefighting Instructions:** Wear self contained breathing apparatus for fire fighting if necessary.

### 6. ACCIDENTAL RELEASE MEASURES

**NOTE:** Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**Safeguards (Personnel):** None.

**Spill Cleanup:** Avoid dust formation. Clean up dusts and fibres with high efficiency particulate air (HEPA) filtered vacuum equipment, or by wet cleaning.

**Accidental Release Measures:** Do not let product enter drains.

### 7. HANDLING AND STORAGE

**Handling (Personnel):** Avoid dust formation. Do not touch moving threadlines. Entanglement with this fibre can severely cut or even sever fingers. Avoid breathing dust or vapor.

**Storage:** Keep away from direct sunlight.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls:** Ensure adequate ventilation. Recirculated air should be filtered to remove respirable dust. Provide for appropriate exhaust ventilation and dust collection at machinery. Static charges can cause explosions in solvent and dust laden atmospheres.

Provide grounding of equipment to prevent static build-up.

### Personal protective equipment

**Eye protection:** Safety glasses with side-shields

**Respiratory protection:** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

### Exposure Guidelines

#### Exposure Limit Values

##### Meta-aramid

AEL * (DUPONT)	10 mg/m <sup>3</sup>	8 hr.	TWA	Total dust.
AEL * (DUPONT)	5 mg/m <sup>3</sup>	8 hr.	TWA	Respirable dust.

##### Para-aramid

AEL * (DUPONT)	2 fibers/cm <sup>3</sup>	8 & 12 hr.	TWA	Respirable fibers.
AEL * (DUPONT)	5 mg/m <sup>3</sup>	8 & 12 hr.	TWA	Non-fibrous particulate and/or nonrespirable fibres.

##### N,N-Dimethylacetamide

PEL (OSHA)	10 ppm	35 mg/m <sup>3</sup>	8 hr.	TWA	
					Skin designation applies.
					Skin designation applies.
TLV (ACGIH)	10 ppm			TWA	
AEL * (DUPONT)	10 ppm		8 & 12 hr	TWA	Skin

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits, which are lower than, the AEL are in effect, such limits shall take precedence.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** Nonwoven fabric, woven fabric, fibres, yarn

**Color:** Black, pigmented

**Odor:** None

**Melting point/range:** N/A

**Specific Gravity:** 1.38

**Water solubility:** Insoluble

## 10. STABILITY AND REACTIVITY

**Conditions to avoid:** Temperature > 200 °C (> 392 °F).  
Heating can release hazardous gases.

**Incompatibility:** Strong acids and strong bases

**Decomposition:** **Decomposition temperature:** > 300 °C (> 572 °F).  
Hazardous decomposition products Carbon monoxide, nitrogen oxides (NO<sub>x</sub>), Hydrogen cyanide (hydrocyanic acid).

## 11. TOXICOLOGICAL INFORMATION

**Skin sensitization:** Did not cause sensitization on laboratory animals.  
Negative in human patch test.

### Meta-aramid

Oral ALD: > 11,000 mg/kg, rat

Inhalation ALC: > 238 mg/m<sup>3</sup>, rat  
lung effects

Skin irritation: non-irritant

Carcinogenicity: Did not show carcinogenic effects in animal experiments.

### Para-aramid

Oral ALD: > 7,500 mg/kg, rat

Skin irritation: Species: rabbit, No skin irritation  
non-irritant

Eye irritation: non-irritant

Repeated dose toxicity: Inhalation, rat  
lung effects

Carcinogenicity: Animal testing did not show any carcinogenic effects.

Mutagenicity: Tests on bacterial or mammalian cell cultures did not show  
mutagenic effects.

### N,N-Dimethylacetamide

Dermal LD50: 2,240 - 9,600 mg/kg, animals (unspecified species)

Oral LD50: 3,000 - 6,000 mg/kg, rat

Inhalation 1 h LC50: 8.81 mg/l female, rat  
Value applicable only if respirable particles are formed.

Inhalation 4 h LC50: 2.2 mg/l female, rat

Skin irritation: Species: rabbit  
Mild skin irritation

Eye irritation: Species: rabbit  
irritant

Repeated dose toxicity:	<b>Dermal</b> Central nervous system depression, Liver effects, Skin effects
	<b>Oral</b> Pathologic changes, Stomach, Testes, Liver, Kidney, Abnormal decrease in number of red blood cells (anaemia)
	<b>Inhalation</b> Kidney effects, Liver effects, Retinal damage
Carcinogenicity:	Did not show carcinogenic effects in animal experiments.
Mutagenicity:	Did not cause genetic damage in cultured bacterial cells. Did not cause genetic damage in cultured mammalian cells. Evidence suggests this substance does not cause genetic damage in animals.
Toxicity to reproduction:	Animal testing showed no reproductive toxicity.
Teratogenicity:	Animal testing showed effects on embryo-foetal development at levels equal to or above those causing maternal toxicity.

## 12. ECOLOGICAL INFORMATION

### Aquatic Toxicity

**Para-aramid:** This product has no known eco-toxicological effects.

**N,N-Dimethylacetamide 96 h LC50:** Fathead minnow 1,500 mg/l

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal:** Can be landfilled or incinerated, when in compliance with local regulations. Do not flush into surface water or sanitary sewer system.

## 14. TRANSPORT INFORMATION

None special required.

## 15. REGULATORY INFORMATION

**TSCA Status:** Product is an article as defined at 40CFR720.3(c) and is not subject to TSCA Inventory requirements.

**SARA 313 Regulated Chemical(s):** SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Prop. 65:** Chemicals known to State of California to cause cancer, birth defects or any other harm: none known



## 16. OTHER INFORMATION

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MSDS Number: THRD-13-SP  
Revision Date: 5-25-16

## 1. PRODUCT AND COMPANY IDENTIFICATION

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#### Carcinogenicity

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### Flammable Properties

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**Thermal decomposition:** > 300 °C (> 572 °F)

**Fire and Explosion Hazard:** Hazardous decomposition products formed under fire conditions.

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**Firefighting Instructions:** Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

**NOTE:** Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**Safeguards (Personnel):** None.

**Spill Cleanup:** Avoid dust formation. Clean up dusts and fibres with high efficiency particulate air (HEPA) filtered vacuum equipment, or by wet cleaning.

**Accidental Release Measures:** Do not let product enter drains.

## 7. HANDLING AND STORAGE

**Handling (Personnel):** Avoid dust formation. Do not touch moving threadlines. Entanglement with this fibre can severely cut or even sever fingers. Avoid breathing dust or vapor.

**Storage:** Keep away from direct sunlight.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls:** Ensure adequate ventilation. Recirculated air should be filtered to remove respirable dust. Provide for appropriate exhaust ventilation and dust collection at machinery. Static charges can cause explosions in solvent and dust laden atmospheres.

Provide grounding of equipment to prevent static build-up.

### Personal protective equipment

**Eye protection:** Safety glasses with side-shields

**Respiratory protection:** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

### Exposure Guidelines

#### Exposure Limit Values

##### Meta-aramid

AEL *	(DUPONT)	10 mg/m <sup>3</sup>	8 hr.	TWA	Total dust.
AEL *	(DUPONT)	5 mg/m <sup>3</sup>	8 hr.	TWA	Respirable dust.

##### Para-aramid

AEL *	(DUPONT)	2 fibers/cm <sup>3</sup>	8 & 12 hr.	TWA	Respirable fibers.
AEL *	(DUPONT)	5 mg/m <sup>3</sup>	8 & 12 hr.	TWA	Non-fibrous particulate and/or nonrespirable fibres.

##### N,N-Dimethylacetamide

PEL	(OSHA)	10 ppm	35 mg/m <sup>3</sup>	8 hr.	TWA	Skin designation applies.
						Skin designation applies.
TLV	(ACGIH)	10 ppm			TWA	
AEL *	(DUPONT)	10 ppm		8 & 12 hr	TWA	Skin

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits, which are lower than, the AEL are in effect, such limits shall take precedence.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** Nonwoven fabric, woven fabric, fibres, yarn

**Color:** Green, pigmented

**Odor:** None

**Melting point/range:** N/A

**Specific Gravity:** 1.38

**Water solubility:** Insoluble

## 10. STABILITY AND REACTIVITY

**Conditions to avoid:** Temperature > 200 °C (> 392 °F).  
Heating can release hazardous gases.

**Incompatibility:** Strong acids and strong bases

**Decomposition:** **Decomposition temperature:** > 300 °C (> 572 °F).  
Hazardous decomposition products Carbon monoxide, nitrogen oxides (NO<sub>x</sub>), Hydrogen cyanide (hydrocyanic acid).

## 11. TOXICOLOGICAL INFORMATION

**Skin sensitization:** Did not cause sensitization on laboratory animals.  
Negative in human patch test.

### Meta-aramid

Oral ALD: > 11,000 mg/kg, rat

Inhalation ALC: > 238 mg/m<sup>3</sup>, rat  
lung effects

Skin irritation: non-irritant

Carcinogenicity: Did not show carcinogenic effects in animal experiments.

### Para-aramid

Oral ALD: > 7,500 mg/kg, rat

Skin irritation: Species: rabbit, No skin irritation  
non-irritant

Eye irritation: non-irritant

Repeated dose toxicity: Inhalation, rat  
lung effects

Carcinogenicity: Animal testing did not show any carcinogenic effects.

Mutagenicity: Tests on bacterial or mammalian cell cultures did not show  
mutagenic effects.

### N,N-Dimethylacetamide

Dermal LD50: 2,240 - 9,600 mg/kg, animals (unspecified species)

Oral LD50: 3,000 - 6,000 mg/kg, rat

Inhalation 1 h LC50: 8.81 mg/l female, rat  
Value applicable only if respirable particles are formed.

Inhalation 4 h LC50: 2.2 mg/l female, rat

Skin irritation: Species: rabbit  
Mild skin irritation

Eye irritation: Species: rabbit  
irritant

Repeated dose toxicity:	<b>Dermal</b> Central nervous system depression, Liver effects, Skin effects <b>Oral</b> Pathologic changes, Stomach, Testes, Liver, Kidney, Abnormal decrease in number of red blood cells (anaemia) <b>Inhalation</b> Kidney effects, Liver effects, Retinal damage
Carcinogenicity:	Did not show carcinogenic effects in animal experiments.
Mutagenicity:	Did not cause genetic damage in cultured bacterial cells. Did not cause genetic damage in cultured mammalian cells. Evidence suggests this substance does not cause genetic damage in animals.
Toxicity to reproduction:	Animal testing showed no reproductive toxicity.
Teratogenicity:	Animal testing showed effects on embryo-foetal development at levels equal to or above those causing maternal toxicity.

## 12. ECOLOGICAL INFORMATION

### Aquatic Toxicity

**Para-aramid:** This product has no known eco-toxicological effects.

**N,N-Dimethylacetamide 96 h LC50:** Fathead minnow 1,500 mg/l

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal:** Can be landfilled or incinerated, when in compliance with local regulations. Do not flush into surface water or sanitary sewer system.

## 14. TRANSPORT INFORMATION

None special required.

## 15. REGULATORY INFORMATION

**TSCA Status:** Product is an article as defined at 40CFR720.3(c) and is not subject to TSCA Inventory requirements.

**SARA 313 Regulated Chemical(s):** SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Prop. 65:** Chemicals known to State of California to cause cancer, birth defects or any other harm: none known

MSDS Number: THRD-13-SP  
Revision Date: 5-25-16

## 16. OTHER INFORMATION

**Disclaimer:**

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Individuals should make a determination as to the suitability of the information for their particular purpose(s).

MSDS Number: THRD-01-SP

Revision Date: 5-25-16

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Company Identification

UniTherm International Inc.  
711 Jones Street  
Lewisville, Texas 75057

#### Product Identification

**Product Name:** White Nomex Thread  
**Common Name(s):** Nomex Aramid Fire Retardant Thread, Nomex Sewing Thread

#### **EMERGENCY TELEPHONE NUMBER:**

For emergency involving spill, leak, fire, exposure, or accident call CHEMTREC (800) 424-9300, day or night

### 2. HAZARDS IDENTIFICATION

#### **Emergency Overview**

The hazards of this product are associated mainly with its processing. Dust may form explosive mixture in air. High concentrations of dust can irritate eyes, nose and respiratory system and cause coughing and sneezing. Processing meta-aramid products can release Dimethyl Acetamide (DMAC). Hazards related to DMAC include: May be harmful by inhalation (after often repeated exposure). May be harmful in contact with skin (after often repeated exposure). Liver and kidney injuries may occur. Processing para-aramid products can release respirable dust and respirable fibre particulate. Prolonged inhalation of respirable dust and respirable fibre particulate at high concentrations can cause lung damage. Continual rubbing of fibre particulates and dust on the skin can cause a transitory, mild irritation with redness or itching.

#### **Potential Health Effects**

##### Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Meta-aramid fiber or meta-aramid fiber blended with para-aramid, antistatic or other synthetic fibers		100 %

#### **Exposure limits may be applicable for the following:**

Meta-aramid	25765-47-3
Para-aramid	26125-61-1
Synthetic fibres	
N,N-Dimethylacetamide	127-19-5



### 4. FIRST AID MEASURES

**General advice:** No hazards, which require special first aid measures. If symptoms persist, call a physician. If irritation occurs, flush area thoroughly with water.

### 5. FIRE FIGHTING MEASURES

#### Flammable Properties

**Flash point:** not applicable

**Thermal decomposition:** > 300 °C (> 572 °F)

**Fire and Explosion Hazard:** Hazardous decomposition products formed under fire conditions.

**Extinguishing Media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Firefighting Instructions:** Wear self contained breathing apparatus for fire fighting if necessary.

### 6. ACCIDENTAL RELEASE MEASURES

**NOTE:** Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**Safeguards (Personnel):** None.

**Spill Cleanup:** Avoid dust formation. Clean up dusts and fibres with high efficiency particulate air (HEPA) filtered vacuum equipment, or by wet cleaning.

**Accidental Release Measures:** Do not let product enter drains.

### 7. HANDLING AND STORAGE

**Handling (Personnel):** Avoid dust formation. Do not touch moving threadlines. Entanglement with this fibre can severely cut or even sever fingers. Avoid breathing dust or vapor.

**Storage:** Keep away from direct sunlight.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls:** Ensure adequate ventilation. Recirculated air should be filtered to remove respirable dust. Provide for appropriate exhaust ventilation and dust collection at machinery. Static charges can cause explosions in solvent and dust laden atmospheres.

Provide grounding of equipment to prevent static build-up.

### Personal protective equipment

**Eye protection:** Safety glasses with side-shields

**Respiratory protection:** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

### Exposure Guidelines

#### Exposure Limit Values

##### Meta-aramid

AEL * (DUPONT)	10 mg/m <sup>3</sup>	8 hr.	TWA	Total dust.
AEL * (DUPONT)	5 mg/m <sup>3</sup>	8 hr.	TWA	Respirable dust.

##### Para-aramid

AEL * (DUPONT)	2 fibers/cm <sup>3</sup>	8 & 12 hr.	TWA	Respirable fibers.
AEL * (DUPONT)	5 mg/m <sup>3</sup>	8 & 12 hr.	TWA	Non-fibrous particulate and/or nonrespirable fibres.

##### N,N-Dimethylacetamide

PEL (OSHA)	10 ppm 35 mg/m <sup>3</sup>	8 hr.	TWA	Skin designation applies. Skin designation applies.
TLV (ACGIH)	10 ppm		TWA	
AEL * (DUPONT)	10 ppm	8 & 12 hr	TWA	Skin

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits, which are lower than, the AEL are in effect, such limits shall take precedence.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** Nonwoven fabric, woven fabric, fibres, yarn

**Color:** White, pigmented

**Odor:** None

**Melting point/range:** N/A

**Specific Gravity:** 1.38

**Water solubility:** Insoluble

## 10. STABILITY AND REACTIVITY

**Conditions to avoid:** Temperature > 200 °C (> 392 °F).  
Heating can release hazardous gases.

**Incompatibility:** Strong acids and strong bases

**Decomposition:** **Decomposition temperature:** > 300 °C (> 572 °F).  
Hazardous decomposition products Carbon monoxide, nitrogen oxides (NO<sub>x</sub>), Hydrogen cyanide (hydrocyanic acid).

## 11. TOXICOLOGICAL INFORMATION

**Skin sensitization:** Did not cause sensitization on laboratory animals.  
Negative in human patch test.

### Meta-aramid

Oral ALD: > 11,000 mg/kg, rat

Inhalation ALC: > 238 mg/m<sup>3</sup>, rat  
lung effects

Skin irritation: non-irritant

Carcinogenicity: Did not show carcinogenic effects in animal experiments.

### Para-aramid

Oral ALD: > 7,500 mg/kg, rat

Skin irritation: Species: rabbit, No skin irritation  
non-irritant

Eye irritation: non-irritant

Repeated dose toxicity: Inhalation, rat  
lung effects

Carcinogenicity: Animal testing did not show any carcinogenic effects.

Mutagenicity: Tests on bacterial or mammalian cell cultures did not show  
mutagenic effects.

### N,N-Dimethylacetamide

Dermal LD50: 2,240 - 9,600 mg/kg, animals (unspecified species)

Oral LD50: 3,000 - 6,000 mg/kg, rat

Inhalation 1 h LC50: 8.81 mg/l female, rat  
Value applicable only if respirable particles are formed.

Inhalation 4 h LC50: 2.2 mg/l female, rat

Skin irritation: Species: rabbit  
Mild skin irritation

Eye irritation: Species: rabbit  
irritant

Repeated dose toxicity:	<b>Dermal</b> Central nervous system depression, Liver effects, Skin effects
	<b>Oral</b> Pathologic changes, Stomach, Testes, Liver, Kidney, Abnormal decrease in number of red blood cells (anaemia)
	<b>Inhalation</b> Kidney effects, Liver effects, Retinal damage
Carcinogenicity:	Did not show carcinogenic effects in animal experiments.
Mutagenicity:	Did not cause genetic damage in cultured bacterial cells. Did not cause genetic damage in cultured mammalian cells. Evidence suggests this substance does not cause genetic damage in animals.
Toxicity to reproduction:	Animal testing showed no reproductive toxicity.
Teratogenicity:	Animal testing showed effects on embryo-foetal development at levels equal to or above those causing maternal toxicity.

## 12. ECOLOGICAL INFORMATION

### Aquatic Toxicity

**Para-aramid:** This product has no known eco-toxicological effects.

**N,N-Dimethylacetamide 96 h LC50:** Fathead minnow 1,500 mg/l

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal:** Can be landfilled or incinerated, when in compliance with local regulations. Do not flush into surface water or sanitary sewer system.

## 14. TRANSPORT INFORMATION

None special required.

## 15. REGULATORY INFORMATION

**TSCA Status:** Product is an article as defined at 40CFR720.3(c) and is not subject to TSCA Inventory requirements.

**SARA 313 Regulated Chemical(s):** SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Prop. 65:** Chemicals known to State of California to cause cancer, birth defects or any other harm: none known

## 16. OTHER INFORMATION

**Disclaimer:**

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Individuals should make a determination as to the suitability of the information for their particular purpose(s).

MSDS Number: THRD-10-SP

Revision Date: 5-25-16

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Company Identification

UniTherm International Inc.  
711 Jones Street  
Lewisville, Texas 75057

### Product Identification

**Product Name:** Yellow Nomex Thread  
**Common Name(s):** Nomex Aramid Fire Retardant Thread, Nomex Sewing Thread

### **EMERGENCY TELEPHONE NUMBER:**

For emergency involving spill, leak, fire, exposure, or accident call CHEMTREC (800) 424-9300, day or night

## 2. HAZARDS IDENTIFICATION

### **Emergency Overview**

The hazards of this product are associated mainly with its processing. Dust may form explosive mixture in air. High concentrations of dust can irritate eyes, nose and respiratory system and cause coughing and sneezing. Processing meta-aramid products can release Dimethyl Acetamide (DMAC). Hazards related to DMAC include: May be harmful by inhalation (after often repeated exposure). May be harmful in contact with skin (after often repeated exposure). Liver and kidney injuries may occur. Processing para-aramid products can release respirable dust and respirable fibre particulate. Prolonged inhalation of respirable dust and respirable fibre particulate at high concentrations can cause lung damage. Continual rubbing of fibre particulates and dust on the skin can cause a transitory, mild irritation with redness or itching.

### **Potential Health Effects**

#### Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Meta-aramid fiber or meta-aramid fiber blended with para-aramid, antistatic or other synthetic fibers		100 %

### **Exposure limits may be applicable for the following:**

Meta-aramid	25765-47-3
Para-aramid	26125-61-1
Synthetic fibres	
N,N-Dimethylacetamide	127-19-5

### 4. FIRST AID MEASURES

**General advice:** No hazards, which require special first aid measures. If symptoms persist, call a physician. If irritation occurs, flush area thoroughly with water.

### 5. FIRE FIGHTING MEASURES

#### Flammable Properties

**Flash point:** not applicable

**Thermal decomposition:** > 300 °C (> 572 °F)

**Fire and Explosion Hazard:** Hazardous decomposition products formed under fire conditions.

**Extinguishing Media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Firefighting Instructions:** Wear self contained breathing apparatus for fire fighting if necessary.

### 6. ACCIDENTAL RELEASE MEASURES

**NOTE:** Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**Safeguards (Personnel):** None.

**Spill Cleanup:** Avoid dust formation. Clean up dusts and fibres with high efficiency particulate air (HEPA) filtered vacuum equipment, or by wet cleaning.

**Accidental Release Measures:** Do not let product enter drains.

### 7. HANDLING AND STORAGE

**Handling (Personnel):** Avoid dust formation. Do not touch moving threadlines. Entanglement with this fibre can severely cut or even sever fingers. Avoid breathing dust or vapor.

**Storage:** Keep away from direct sunlight.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls:** Ensure adequate ventilation. Recirculated air should be filtered to remove respirable dust. Provide for appropriate exhaust ventilation and dust collection at machinery. Static charges can cause explosions in solvent and dust laden atmospheres.

Provide grounding of equipment to prevent static build-up.

### Personal protective equipment

**Eye protection:** Safety glasses with side-shields

**Respiratory protection:** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

### Exposure Guidelines

#### Exposure Limit Values

##### Meta-aramid

AEL *	(DUPONT)	10 mg/m <sup>3</sup>	8 hr.	TWA	Total dust.
AEL *	(DUPONT)	5 mg/m <sup>3</sup>	8 hr.	TWA	Respirable dust.

##### Para-aramid

AEL *	(DUPONT)	2 fibers/cm <sup>3</sup>	8 & 12 hr.	TWA	Respirable fibers.
AEL *	(DUPONT)	5 mg/m <sup>3</sup>	8 & 12 hr.	TWA	Non-fibrous particulate and/or nonrespirable fibres.

##### N,N-Dimethylacetamide

PEL	(OSHA)	10 ppm	35 mg/m <sup>3</sup>	8 hr.	TWA	Skin designation applies.
						Skin designation applies.
TLV	(ACGIH)	10 ppm			TWA	
AEL *	(DUPONT)	10 ppm		8 & 12 hr	TWA	Skin

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits, which are lower than, the AEL are in effect, such limits shall take precedence.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** Nonwoven fabric, woven fabric, fibres, yarn

**Color:** Yellow, pigmented

**Odor:** None

**Melting point/range:** N/A

**Specific Gravity:** 1.38

**Water solubility:** Insoluble

## 10. STABILITY AND REACTIVITY

**Conditions to avoid:** Temperature > 200 °C (> 392 °F).  
Heating can release hazardous gases.



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**Incompatibility:** Strong acids and strong bases

**Decomposition:** **Decomposition temperature:** > 300 °C (> 572 °F).  
Hazardous decomposition products Carbon monoxide, nitrogen oxides (NO<sub>x</sub>), Hydrogen cyanide (hydrocyanic acid).

## 11. TOXICOLOGICAL INFORMATION

**Skin sensitization:** Did not cause sensitization on laboratory animals.  
Negative in human patch test.

### Meta-aramid

Oral ALD: > 11,000 mg/kg, rat

Inhalation ALC: > 238 mg/m<sup>3</sup>, rat  
lung effects

Skin irritation: non-irritant

Carcinogenicity: Did not show carcinogenic effects in animal experiments.

### Para-aramid

Oral ALD: > 7,500 mg/kg, rat

Skin irritation: Species: rabbit, No skin irritation  
non-irritant

Eye irritation: non-irritant

Repeated dose toxicity: Inhalation, rat  
lung effects

Carcinogenicity: Animal testing did not show any carcinogenic effects.

Mutagenicity: Tests on bacterial or mammalian cell cultures did not show  
mutagenic effects.

### N,N-Dimethylacetamide

Dermal LD50: 2,240 - 9,600 mg/kg, animals (unspecified species)

Oral LD50: 3,000 - 6,000 mg/kg, rat

Inhalation 1 h LC50: 8.81 mg/l female, rat  
Value applicable only if respirable particles are formed.

Inhalation 4 h LC50: 2.2 mg/l female, rat

Skin irritation: Species: rabbit  
Mild skin irritation

Eye irritation: Species: rabbit  
irritant

Repeated dose toxicity:	<b>Dermal</b> Central nervous system depression, Liver effects, Skin effects <b>Oral</b> Pathologic changes, Stomach, Testes, Liver, Kidney, Abnormal decrease in number of red blood cells (anaemia) <b>Inhalation</b> Kidney effects, Liver effects, Retinal damage
Carcinogenicity:	Did not show carcinogenic effects in animal experiments.
Mutagenicity:	Did not cause genetic damage in cultured bacterial cells. Did not cause genetic damage in cultured mammalian cells. Evidence suggests this substance does not cause genetic damage in animals.
Toxicity to reproduction:	Animal testing showed no reproductive toxicity.
Teratogenicity:	Animal testing showed effects on embryo-foetal development at levels equal to or above those causing maternal toxicity.

## 12. ECOLOGICAL INFORMATION

### Aquatic Toxicity

**Para-aramid:** This product has no known eco-toxicological effects.

**N,N-Dimethylacetamide 96 h LC50:** Fathead minnow 1,500 mg/l

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal:** Can be landfilled or incinerated, when in compliance with local regulations. Do not flush into surface water or sanitary sewer system.

## 14. TRANSPORT INFORMATION

None special required.

## 15. REGULATORY INFORMATION

**TSCA Status:** Product is an article as defined at 40CFR720.3(c) and is not subject to TSCA Inventory requirements.

**SARA 313 Regulated Chemical(s):** SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Prop. 65:** Chemicals known to State of California to cause cancer, birth defects or any other harm: none known

## 16. OTHER INFORMATION

**Disclaimer:**

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MSDS Number: CL-24-SP

Revision Date: 5-25-16

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Company Identification

UniTherm International Inc.  
711 Jones Street  
Lewisville, Texas 75057

### Product Identification

**Product Name:** Green PTFE Coated  
Fiberglass Cloth

**Common Name(s):** PTFE Coated Fiber  
Glass

### **EMERGENCY TELEPHONE NUMBER:**

For emergency involving spill, leak, fire,  
exposure, or accident call CHEMTREC  
(800) 424-9300, day or night

## 2. HAZARDS IDENTIFICATION

**Route of Entry:** This material may enter the body through inhalation of nuisance dust.

**Target Organs:** Respiratory system

**Inhalation:** Sore, raspy throat. Inhaling fumes of the decomposition products of polytetrafluoroethylene can induce temporary influenza-like symptoms. These symptoms include fever, cough and malaise.

**Skin Contact:** Redness and possible rash; itching

**Eye Contact:** Itching and redness

**Ingestion:** N/A

**NFPA:** Health = 3, Fire = 0, Reactivity = 0

**HMIS III:** H1/F0/PH0

**GHS Signal Word:**

WARNING

**GHS Classifications:**

Health, Skin corrosion/irritation, 2

**GHS Phrases:**

H315 - Causes skin irritation

**GHS Precautionary Statements:**

P264 - Wash \_ thoroughly after handling.

MSDS Number: CL-24-SP

Revision Date: 5-25-16

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients:**

Fibrous Glass (CAS 65997-17-3) (65%-75%)

Exposure Limits: OSHA PEL 15 mg/m<sup>3</sup> (total), 5 mg/m<sup>3</sup> (respirable). ACGIH TLV 1 f/cc

Polytetrafluoroethylene (CAS 9002-84-0) (25%-35%)

### 4. FIRST AID MEASURES

**Inhalation:** Remove person to fresh air. If condition persists, seek medical attention.

**Skin Contact:** Rinse with copious quantities of cool water. If rash or itching persists, seek medical attention.

**Eye Contact:** Rinse with water. Do not rub eyes. Seek medical attention.

**Ingestion:** Not applicable.

### 5. FIRE FIGHTING MEASURES

**Flash Point (Method Used):** >250 °C by TOC                      Flammable Limits

**LEL:** N/A                      **UEL:** N/A

**Extinguishing Media:** Water, carbon dioxide, or dry chemical

**Special Fire Fighting Procedures:** Thermal decomposition of fiber coating may produce an irritating mixture of smoke and fumes.

**Unusual Fire and Explosion Hazards:** None

### 6. ACCIDENTAL RELEASE MEASURES

Material is a solid in roll form. If accidentally released, rewind material back onto roll.

### 7. HANDLING AND STORAGE

**Handling Precautions:** Use adequate material handling equipment.

**Storage Requirements:** Store in dry place. Use may be at temperature extremes based on product data, but storage should be at ambient temperature.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Local exhaust; dust collection

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**Personal Protective Equip:** HMIS PP, B | Safety Glasses, Gloves  
Safety glasses; cotton gloves; long sleeve clothing

Wash thoroughly with soap and water after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Green Face with Tan Back

**Physical State:** Solid

**Spec Grav. /Density:** 1.6

**Boiling Point:** N/A

**Vapor Pressure:** N/A

**pH:** N/A

**Odor:** No Odor

**Solubility:** Negligible

**Freezing/Melting Pt.:** > 400 °F

**Vapor Density:** N/A

## 10. STABILITY AND REACTIVITY

**Stability:** Material is stable.

**Conditions to Avoid:** None known.

**Materials to Avoid:** Strong-oxidizing agents.

**Hazardous Decomposition:** Carbon monoxide; carbon dioxide; hydrogen fluoride

**Hazardous Polymerization:** Will Not Occur.

## 11. TOXICOLOGICAL INFORMATION

Direct contact with fiberglass materials or exposure to airborne fiberglass dust may irritate the skin, eyes, nose and throat. Fiberglass can cause itching due to mechanical irritation from the fibers. This is not an allergic reaction to the material. Breathing fibers may irritate the airways resulting in coughing and a scratchy throat. Some people are sensitive to the fibers, while others are not.

## 12. ECOLOGICAL INFORMATION

No known hazards except for airborne fibers caused by nuisance dust. 10 milligrams per cubic meter for fiber diameters less than 7 microns.

## 13. DISPOSAL CONSIDERATIONS

Incineration preferred in a federal, state, or local approved facility.

## 14. TRANSPORT INFORMATION

None special required.

MSDS Number: CL-24-SP

Revision Date: 5-25-16

## 15. REGULATORY INFORMATION

COMPONENT /	(CAS/PERC) /	CODES
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\*Polytetrafluoroethylene (9002840 n/a%) PA

## 16. OTHER INFORMATION

### Disclaimer:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Individuals should make a determination as to the suitability of the information for their particular purpose(s).

MSDS Number: THRD-09-SP

Revision Date: 5-25-16

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Company Identification

UniTherm International Inc.  
711 Jones Street  
Lewisville, Texas 75057

### Product Identification

**Product Name:** PTFE Coated Fiberglass  
Sewing Thread

**Common Name(s):** PTFE Coated Sewing  
Thread

### **EMERGENCY TELEPHONE NUMBER:**

For emergency involving spill, leak, fire,  
exposure, or accident call CHEMTREC  
(800) 424-9300, day or night

## 2. HAZARDS IDENTIFICATION

**Route of Entry:** This material may enter the body through inhalation of nuisance dust.

**Target Organs:** Respiratory system

**Inhalation:** Sore, raspy throat

**Skin Contact:** Redness and possible rash; itching

**Eye Contact:** Itching and redness

**Ingestion:** N/A

**NFPA:** Health = 1, Fire = 0, Reactivity = 0

**HMIS III:** H1/F0/PH0

### **GHS Signal Word:**

WARNING

### **GHS Classifications:**

Health, Respiratory or skin sensitization, 1 Skin

### **GHS Phrases:**

H317 - May cause an allergic skin reaction

### **GHS Precautionary Statements:**

P264 - Wash \_ thoroughly after handling.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### **Ingredients:**

Fibrous Glass (CAS 65997-17-3)

Exposure Limits: OSHA PEL 15 mg/m<sup>3</sup> (total), 5 mg/m<sup>3</sup> (respirable). ACGIH TLV 1 f/cc

Polytetrafluoroethylene (CAS 9002-84-0)



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## 4. FIRST AID MEASURES

**Inhalation:** Remove person to fresh air. If condition persists, seek medical attention.

**Skin Contact:** Rinse with copious quantities of cool water. If rash or itching persists, seek medical attention.

**Eye Contact:** Rinse with water. Do not rub eyes. Seek medical attention.

**Ingestion:** Not applicable.

## 5. FIRE FIGHTING MEASURES

**Flash Point (Method Used):** >250 °C by TOC                      Flammable Limits

**LEL:** N/A                      **UEL:** N/A

**Extinguishing Media:** Water, carbon dioxide, or dry chemical

**Special Fire Fighting Procedures:** Thermal decomposition of fiber coating may produce an irritating mixture of smoke and fumes.

**Unusual Fire and Explosion Hazards:** None

## 6. ACCIDENTAL RELEASE MEASURES

Material is a solid in roll form. If accidentally released, rewind material back onto roll.

## 7. HANDLING AND STORAGE

**Handling Precautions:** Use adequate material handling equipment.

**Storage Requirements:** Store in dry place. Use may be at temperature extremes based on product data, but storage should be at ambient temperature.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Local exhaust; dust collection

**Personal Protective Equip:** HMIS PP, A | Safety Glasses  
Safety glasses; cotton gloves; long sleeve clothing

Wash thoroughly with soap and water after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Tan Thread

**Physical State:** Solid

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**Spec Grav. /Density:** 2.1

**Boiling Point:** N/A

**Vapor Pressure:** N/A

**pH:** N/A

**Odor:** No Odor

**Solubility:** Negligible

**Freezing/Melting Pt.:** > 1000 F

**Vapor Density:** N/A

## 10. STABILITY AND REACTIVITY

**Stability:** Material is stable.

**Conditions to Avoid:** None known.

**Materials to Avoid:** Strong-oxidizing agents.

**Hazardous Decomposition:** Carbon monoxide; carbon dioxide; hydrogen fluoride

**Hazardous Polymerization:** Will Not Occur.

## 11. TOXICOLOGICAL INFORMATION

Direct contact with fiberglass materials or exposure to airborne fiberglass dust may irritate the skin, eyes, nose and throat. Fiberglass can cause itching due to mechanical irritation from the fibers. This is not an allergic reaction to the material. Breathing fibers may irritate the airways resulting in coughing and a scratchy throat. Some people are sensitive to the fibers, while others are not.

## 12. ECOLOGICAL INFORMATION

No known hazards except for airborne fibers caused by nuisance dust. 10 milligrams per cubic meter for fiber diameters less than 7 microns.

## 13. DISPOSAL CONSIDERATIONS

Incineration preferred in a federal, state, or local approved facility.

## 14. TRANSPORT INFORMATION

None special required.

## 15. REGULATORY INFORMATION

**COMPONENT / (CAS/PERC) / CODES**

\*Polytetrafluoroethylene (9002840 n/a%) PA, TSCA

PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

MSDS Number: THRD-09-SP  
Revision Date: 5-25-16

## 16. OTHER INFORMATION

**Disclaimer:**

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Individuals should make a determination as to the suitability of the information for their particular purpose(s).

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Company Identification

UniTherm International Inc.  
711 Jones Street  
Lewisville, Texas 75057

#### Product Identification

**Product Name:** Roller Buckle  
**Common Name(s):** Falconbridge Nikkel Squares, Nickel Crowns, D-Crowns, Microcrowns, D-Microcrowns, Alloy Grade

#### **EMERGENCY TELEPHONE NUMBER:**

For emergency involving spill, leak, fire, exposure, or accident call CHEMTREC (800) 424-9300, day or night

### 2. HAZARDS IDENTIFICATION

#### **Classification according to 67/548/EEC or 1999/45/EC:**

T; R40, R43, R48/23

#### **Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]:**

Carc. 2; H351  
Skin Sens. 1; H317  
STOT RE1; H372

#### **Description of hazard:**

May cause sensitization by skin contact. Limited evidence of a carcinogenic effect. Toxic: danger of serious damage to health by prolonged exposure through inhalation. Particles may produce mechanical irritation to eyes.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Component name</b>	<b>Identification</b>	<b>Classification</b>	<b>Contents</b>
Nickel	CAS no.: 7440-02-0 EC no.: 231-111-4	T, Cancer 3; R40, R43 R48/23	99,9 - 100 %

#### **Column Headings:**

CAS no. = Chemical Abstracts Service; EU (Einecs or Elincs number) = European inventory of Existing Commercial Chemical Substances; Ingredient name = Name as specified in the substance list (substances that are not included in the substance list must be translated, if possible). Contents given in; %, %wt/wt, %vol/wt, %vol/vol, mg/m<sup>3</sup>, ppb, ppm, weight%, vol%

#### **HH/HF/HE:**

T+ = Very toxic, T = Toxic, C = Corrosive, Xn = Harmful, Xi = Irritating, E = Explosive, O = Oxidizing, F+ = Extremely flammable, F = Very flammable, N = Environmental hazard

### 4. FIRST AID MEASURES

**General:** In case of accidents call a doctor immediately and show the msds to the doctor.

**Inhalation:** Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/oxygen. Get medical attention.

**Skin Contact:** Wash skin with soap and water. Get medical attention if any discomfort continues.

**Eye Contact:** Rinse with water. Contact physician if discomfort continues.

**Ingestion:** Not relevant.

### 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Water. Foam, carbon dioxide or dry powder.

**Fire And Explosion Hazards:** Not flammable. Very fine dust may be burnable.

**Personal Protective Equipment:** Fire brigade must use fresh-air helmet.

**Other Information:** Fire creates: Nickeloxides

### 6. ACCIDENTAL RELEASE MEASURES

**General Measures:** Avoid development of dust,

**Personal Precautions:** Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of dust. Avoid contact with eyes and prolonged skin contact.

**Environmental Precautions:** Do not contaminate water sources or sewer.

**Methods For Cleaning:** Recover the product and place in a suitable container for reuse.

### 7. HANDLING AND STORAGE

**Handling:** Mechanical ventilation may be required. Avoid inhalation of dust. Avoid contact with eyes and prolonged skin contact. Do not eat, drink or smoke when using the product. Persons susceptible for allergic reactions should not handle this product.

**Storage:** Store dry and cool. Closed container.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### EXPOSURE LIMIT VALUES

Component Name	Identification	Value	Year
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Nickel

CAS no.: 7440-02-0  
EC no.: 231-111-4

8 h.: 0,05 mg/m<sup>3</sup>

2007

### **EXPOSURE CONTROLS**

**Recommended Monitoring Procedures:** Special health control must be carried out. Measuring of: Dust and metals in air. Results ought to be lower than TLV.

**Occupational Exposure Controls:** Provide sufficient ventilation for operations causing dust formation.

**Respiratory Protection:** Use respiratory equipment with particle filter, type P3.

**Hand Protection:** Use suitable protective gloves if risk of skin contact. PVC gloves are recommended. Break-through time > 8 hours. Use thin cotton gloves inside the rubber gloves if allergy risk.

**Eye Protection:** Use tight fitting goggles if dust is generated.

**Other Information:** When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving work place. Isolate contaminated clothing and wash before reuse.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Odor:</b>	No characteristic odor.
<b>Color:</b>	Silver Grey
<b>Specific Gravity:</b>	<b>Value:</b> 8,9 g/ml <b>Comments:</b> 20 C
<b>Melting Point/Melting Range:</b>	<b>Value:</b> 1453 °C
<b>Boiling Point:</b>	<b>Value:</b> 2700 °C <b>Comments:</b> 760 mmHg

### **OTHER PHYSICAL AND CHEMICAL PROPERTIES**

**Comments:** **Molecular weight:** 58,69

## **10. STABILITY AND REACTIVITY**

**Materials To Avoid:** Strong acids.

**Hazardous Decomposition Products:** Explosive gases/vapours/fumes of: Hydrogen.

**Stability:** Stable under the prescribed storage conditions.

## **11. TOXICOLOGICAL INFORMATION**

### **Toxicological Information:**

LD50 oral **Value:** > 9000 mg/kg

**Test animal species:** rat

**Comments:** LD50

### COMPONENTS' TOXICOLOGICAL DATA

**Other Information Regarding Health Hazards:**

**Inhalation:** Dust may irritate respiratory system or lungs.

**Skin Contact:** May cause sensitisation by skin contact. Irritating to skin.

**Eye Contact:** Particles in the eyes may cause irritation and smarting.

**Sensitization:** May give allergic disease in skin by prolonged and frequent exposition.

**Carcinogenicity:** Limited evidence for carcinogenic effect.

**Chronic Effects:** Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Harmful; serious damage to health by prolonged exposure through: Inhalation

## 12. ECOLOGICAL INFORMATION

### COMPONENTS' TOXICOLOGICAL DATA

**Other Ecological Information:**

**Ecotoxicity:** The product is not expected to be hazardous to the environment.

**Mobility:** The product is insoluble in water.

**Persistence And Degradability:** The product is slowly degradable.

**Bioaccumulative Potential:** Will not bio-accumulate.

## 13. DISPOSAL CONSIDERATIONS

**EWC waste code:** EWC: 060405 wastes containing other heavy metals, National waste code: 7091

**Product classified as hazardous waste:** Yes

**Packaging classified as hazardous waste:** No

**Specify the appropriate methods of disposal:** Recover and reclaim or recycle, if practical. Collect in marked containers and deliver to approved depot.

## 14. TRANSPORT INFORMATION

**Dangerous goods ADR Status:** No

**Dangerous goods RID Status:** No

**Dangerous goods IMDG Status:** No

**Dangerous goods ICAO/IATA Status:** No

## 15. REGULATORY INFORMATION

<b>Composition on the label Nickel:</b>	99,9 - 100 %
<b>EC no.:</b>	231-111-4
<b>R phrases:</b>	R40 Limited evidence of a carcinogenic effect. R43 May cause sensitization by skin contact. R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.
<b>S phrases:</b>	S2 Keep out of the reach of children. S22 Do not breathe dust. S36/37/39. Wear suitable protective clothing, gloves and eye/face protection. S51 Use only in well-ventilated areas.
<b>Signal word:</b>	Danger
<b>Hazard statements:</b>	H351 Suspected of causing cancer H317 May cause an allergic skin reaction. H372 Causes damage to organs through prolonged or repeated exposure.
<b>Hazard statements:</b>	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P270 Do not eat, drink or smoke when using this product. P314 Get medical advice/attention if you feel unwell.
<b>References (laws/regulations):</b>	Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments. MSDS is developed/ revised after 1 ATP til CLP

## 16. OTHER INFORMATION

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### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Company Identification

UniTherm International Inc.  
711 Jones Street  
Lewisville, Texas 75057

#### Product Identification

**Product Name:** Silica 600  
**Common Name(s):** Silica Fabric

#### **EMERGENCY TELEPHONE NUMBER:**

For emergency involving spill, leak, fire, exposure, or accident call CHEMTREC (800) 424-9300, day or night

### 2. HAZARDS IDENTIFICATION

**Route of Entry:** This material may enter the body through inhalation of nuisance dust.

**Target Organs:** Respiratory system

**Inhalation:** Sore, raspy throat

**Skin Contact:** Redness and possible rash; itching

**Eye Contact:** Itching and redness

**Ingestion:** N/A

**NFPA:** Health = 1, Fire = 0, Reactivity = 0

**HMIS III:** H1/F0/PH0

#### **GHS Signal Word:**

WARNING

#### **GHS Classifications:**

Health, Skin corrosion/irritation, 2

Health, Serious Eye Damage/Eye Irritation, 2 B

Health, Specific target organ toxicity - Single exposure, 3

Health, Respiratory or skin sensitization, 1 Skin

#### **GHS Phrases:**

H315 - Causes skin irritation

H320 - Causes eye irritation

H335 - May cause respiratory irritation

H317 - May cause an allergic skin reaction

#### **GHS Precautionary Statements:**

P264 - Wash \_ thoroughly after handling.

P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.

P337 - If eye irritation persists: \_

P337+313 - Get medical advice/attention.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients:**

Silica fabric (CAS 7631-86-9)

Exposure Limits: OSHA PEL 15 mg/m<sup>3</sup> (total), 5 mg/m<sup>3</sup> (respirable). ACGIH TLV 1 f/cc

### 4. FIRST AID MEASURES

**Inhalation:** Remove person to fresh air. If condition persists, seek medical attention.

**Skin Contact:** Rinse with copious quantities of cool water. If rash or itching persists, seek medical attention.

**Eye Contact:** Rinse with water. Do not rub eyes. Seek medical attention.

**Ingestion:** Not applicable.

### 5. FIRE FIGHTING MEASURES

**Flash Point (Method Used):** >250 °C by TOC                      Flammable Limits

**LEL:** N/A

**UEL:** N/A

**Extinguishing Media:** Water, carbon dioxide, or dry chemical

**Special Fire Fighting Procedures:** Thermal decomposition of fiber coating may produce an irritating mixture of smoke and fumes.

**Unusual Fire and Explosion Hazards:** None

### 6. ACCIDENTAL RELEASE MEASURES

Material is a solid in roll form. If accidentally released, rewind material back onto roll.

### 7. HANDLING AND STORAGE

**Handling Precautions:** Use adequate material handling equipment.

**Storage Requirements:** Store in dry place. Use may be at temperature extremes based on product data, but storage should be at ambient temperature.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Engineering Controls:** Local exhaust; dust collection

**Personal Protective Equip:** HMIS PP, B | Safety Glasses, Gloves  
Safety glasses; cotton gloves; long sleeve clothing

Wash thoroughly with soap and water after handling.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Tan Fabric

**Physical State:** Solid

**Spec Grav. /Density:** 2.2

**Boiling Point:** N/A

**Vapor Pressure:** N/A

**pH:** N/A

**Odor:** No Odor

**Solubility:** Negligible

**Freezing/Melting Pt.:** > 3000 °F

**Vapor Density:** N/A

### 10. STABILITY AND REACTIVITY

**Stability:** Material is stable.

**Conditions to Avoid:** None known.

**Materials to Avoid:** Strong-oxidizing agents.

**Hazardous Decomposition:** Carbon monoxide; carbon dioxide

**Hazardous Polymerization:** Will Not Occur.

### 11. TOXICOLOGICAL INFORMATION

Direct contact with fiberglass materials or exposure to airborne fiberglass dust may irritate the skin, eyes, nose and throat. Fiberglass can cause itching due to mechanical irritation from the fibers. This is not an allergic reaction to the material. Breathing fibers may irritate the airways resulting in coughing and a scratchy throat. Some people are sensitive to the fibers, while others are not.

### 12. ECOLOGICAL INFORMATION

No known hazards except for airborne fibers caused by nuisance dust. 10 milligrams per cubic meter for fiber diameters less than 7 microns.

### 13. DISPOSAL CONSIDERATIONS

Incineration preferred in a federal, state, or local approved facility.

### 14. TRANSPORT INFORMATION

None special required.

## 15. REGULATORY INFORMATION

**COMPONENT / (CAS/PERC) / CODES**

\*Silica, amorphous (7631869 n/a%) MASS, NJHS, PA, TSCA

REGULATORY KEY DESCRIPTIONS

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MASS = MA Massachusetts Hazardous Substances List

NJHS = NJ Right-to-Know Hazardous Substances

PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

## 16. OTHER INFORMATION

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