



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:Fiber Glass, Continuous Filament

PRODUCT ID:01014

SYNONYMS:

Product Family: Product Name

Chopped strand: ChopVantage®, MaxiChop®, Delta Chop®, Chopped Strands for Nonwovens

Coated Yarn: Hercuflex® Strand HF and HFO lines

Direct Draw: Hybon®, TufRov™, Innofiber™ NTY

Yarn: FiberGlass Yarn, Hybon® RCY, L.E.X.® Yarn, TEXO® Yarn

Mat: MPM 5 Chopped Strand Mat, Needled Mat for AZDEL, MatVantage II, Texo® HTM

Roving: Panel Roving for Continuous Laminating, Roving for Pultrusion/Filament Winding, Roving for SMC, Hybon® Roving for Spray Up, Hybon® Woven Roving

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PPG Industries, Inc.
One PPG Place, Pittsburgh, PA 15272, USA
24-hour Emergency Telephone Number: 1-304-843-1300
For Product Information (8am-5pm Eastern time):
1-800-432-7073 ext. 302 (Fiberglass)

PREPARER: Product Safety, Fiber Glass

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Material/CAS Number</u>	<u>Percent</u>
Fibrous glass (E-glass, continuous filament) 65997-17-3	>95 (typical)
Organic Surface Binder/Sizing	<5 (typical)
NONE	

E-glass is composed principally of oxides of silicon, aluminum and calcium, fused in an amorphous vitreous state.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Fiberglass may cause mechanical irritation to the skin, eye and upper respiratory tract.

Precautions: Avoid contact with eyes. Avoid contact with skin. Avoid breathing dust. Do not swallow. Do not eat, drink or smoke in work area. Wash thoroughly after handling. Fiberglass needled mat products may contain broken steel needles, which can cause physical injury.

4. FIRST AID MEASURES

INHALATION: Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

EYE/SKIN CONTACT: **EYE:** Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary. **SKIN:** Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary. If glass fiber becomes embedded, seek medical attention.

INGESTION: Gently wipe or rinse the inside of the mouth with water. Sips of water can be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician for treatment information.

5. FIRE FIGHTING MEASURES

FLASH POINT: N/A, except for Needled Mat for AZDEL, Inc., which has a flash point >200°F (>93°C).

EXTINGUISHING MEDIA: Use extinguishers appropriate for surrounding fire.

SPECIAL FIREFIGHTING PROCEDURES: Fiberglass itself will not support combustion, but in a sustained fire, proper protection against products of combustion from the fuel and sizing/binder must be worn. Needled mat products for AZDEL, Inc. will support combustion due to the surface treatment. Exposing these products to an ignition source will cause a burn-off of the surface binder, leaving a bare glass residual. Some of the needled mat products for AZDEL, Inc. have a surface binder containing an organic peroxide and may burn in the absence of oxygen.

6. ACCIDENTAL RELEASE MEASURES**ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

Sweep or gather up material and place in proper container for disposal or recovery. Use vacuuming or wet sweeping methods instead of dry sweeping.

7. HANDLING AND STORAGE**PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:**

Store at or below 25°C (77°F) and relative humidity less than 65% for optimum performance. Material is not an electrical conductor, and may accumulate static charge.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

8-hour Time Weighted Average (TWA); 15-minute Short-Term Exposure Limit (STEL)

OSHA: 15 mg/m³ TWA. (total dust)
5 mg/m³ TWA. (respirable dust)

ACGIH: 5 mg/m³ TWA (inhalable fraction)
1 fiber/cm³ TWA (respirable fraction)

RESPIRATORY PROTECTION: If use or application of this product generates dust, use an appropriate NIOSH-approved particulate filter respirator.

VENTILATION: Use local exhaust or general room/dilution ventilation sufficient to maintain employee exposure below permissible exposure limits.

EYE AND FACE PROTECTION: Standard safety glasses with side shields.

PROTECTIVE GLOVES: Use gloves to protect against physical irritation or injury if required by handling conditions.

OTHER PROTECTIVE EQUIPMENT: Wear clean, body-covering clothing. Good personal hygiene and the use of barrier creams, caps, protective gloves, cotton coveralls or long sleeved loose fitting clothing will maximize comfort. Vacuum equipment may be used to remove fibers from clothes. Work clothing should be laundered separately from other clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	NA
VAPOUR DENSITY (Air=1):	Not Applicable.
SPECIFIC GRAVITY (Water=1):	2.6 - 2.7 (bare glass)
pH:	NA
FREEZING/MELTING POINT:	>~1400°F (800°C)
SOLUBILITY (wt.% in water):	insoluble
BULK DENSITY:	NA
VOLUME % VOLATILE:	None
VAPOR PRESSURE:	NA
EVAPORATION RATE:	NA
HEAT OF SOLUTION:	NA
PHYSICAL STATE:	Solid
ODOR:	Odorless
COLOR:	YELLOW-WHITE to White

10. STABILITY AND REACTIVITY

STABILITY: Stable. Texo® HTM may release small amounts of acetic acid and other organic materials at elevated temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY (CONDITIONS/MATERIALS TO AVOID):

None known.

HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:

Fiberglass will not burn, but smoking of the product may occur at approximately 400 - 500 °F (approximately 200 - 260 °C) due to decomposition of the surface binder. Surface binders may decompose in a fire situation and release carbon monoxide, carbon dioxide and water. Additionally, there are many chemicals that can evolve during any partial decomposition of chemical products. The amounts or identities cannot be predicted and can differ in each situation.

11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY STATUS: This product is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

MEDICAL CONDITIONS AGGRAVATED: None known.

EFFECTS OF OVEREXPOSURE:

ACUTE:

Eye: Dusts from this product may cause temporary mechanical irritation to the eyes.

Skin: Dusts from this product may cause temporary mechanical irritation to the skin.

Inhalation: Dusts from this product may cause mechanical irritation of the nose, throat and respiratory tract.

Ingestion: Although ingestion of this product is not likely to occur in industrial applications, accidental ingestion may cause irritation of the mouth and gastrointestinal tract.

CHRONIC: There are no known health effects from the long term use or contact with **nonrespirable** continuous filament fibers. As manufactured, PPG glass fibers are **nonrespirable**. **Nonrespirable** fibers cannot reach the deep lung because they have a diameter of greater than 3.5 micrometers. Fibers of this diameter cannot penetrate the narrow, bending passages of the human respiratory tract to reach the lower regions of the lung and thus, have no possibility of causing serious pulmonary damage. Instead, they deposit on the surfaces of the upper respiratory tract, nose, or pharynx. These fibers are then cleared through normal physiological mechanisms.

Chopped, crushed or severely mechanically processed fiber glass may contain a very small amount of **respirable** fibers that could reach the deep lung. The measured airborne concentration of these respirable fibers in areas where severe processing of fiberglass occurred has been shown to be extremely low and well below the TLV. Repeated or prolonged exposure to **respirable** glass fibres

may cause fibrosis, lung cancer and mesothelioma. PPG fiber glass in the form supplied, does not contain respirable fibers.

Animal Study: In 2000, the Institute of Occupational Medicine (IOM) in Scotland published the results of a long term inhalation study in animals exposed to special application E-glass continuous filament **respirable** fibers. Animals were exposed to a very high concentration of these **respirable** fibers (1022 fibers/cc for 5 hours/day, 7 days/week for 52 weeks). Exposure to these microfibers resulted in the development of fibrosis, lung cancer and mesothelioma.

Epidemiology Studies: Two major studies in the US (performed by the University of Pittsburgh) and Europe (performed by the International Agency for Research on Cancer) showed no increase in lung cancer or respiratory disease among people working in fiber glass production facilities. An additional smaller study performed in Canada also did not show an association between exposure of workers to fiber glass and respiratory cancer.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

Fiberglass is generally considered to be an inert solid waste. No special precautions are needed in case of a release or spill.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

Waste material must be disposed of in accordance with federal, state, provincial, and local environmental control regulations. Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

Proper Shipping Name:Not regulated

15. REGULATORY INFORMATION

USA TSCA: This product is considered an article and is exempt from TSCA requirements.

EUROPE EINECS: This product is considered an article and is exempt from EINECS requirements.

CANADA DOMESTIC SUBSTANCES LIST (DSL): This product is considered an article and is exempt from DSL requirements.

AUSTRALIA AICS: This product is considered an article and is exempt from the Australian Inventory of Chemical Substances (AICS).

KOREA ECL: This product is considered an article and is exempt from the Korean Existing Chemicals Inventory, KECI, requirements.

JAPAN MITI (ENCS): This product is considered an article and is exempt from the Japanese Existing and New Chemical Substances (ENCS) requirements.

PHILIPPINES PICCS: This product is considered an article and is exempt from the Philippines Inventory of Chemicals and Chemical Substances, PICCS.

SARA TITLE III:

SARA (311, 312) Hazard Class:

NA

SARA (313) Chemicals:

Not listed.

SARA Extremely Hazardous Substance:

Not listed.

CERCLA Hazardous Substance:

Not listed.

CANADA REGULATIONS (WHMIS): Not Applicable.

16. OTHER INFORMATION

Other Information:

These products do not contain, nor are manufactured with, Class 1 or Class II Ozone-Depleting Chemicals (CFCs) identified in the Clear Air Act Amendment, 1990 List of Ozone Depleting Chemicals.

The following has been revised since the last issue of this MSDS:

Date. Edition. Section 16 has been updated.

Previous revision date: 02/02/2004

Previous edition number: 3

NA = Not Available