

***** Section 1 - Chemical Product and Company Identification *****

Product Name: Corning® Vascade® EX3000 fiber, Corning® Vascade® EX2000 fiber, Corning® Vascade® EX1000 fiber, Corning® Vascade® LEAF® fiber, Corning® SMF-28® ULL S+ fiber, Corning® Vascade® L1000 fiber, Corning® Vascade® LS+ fiber, Corning® Vascade® S1000 fiber, Corning® Vascade® R1000 fiber solution, Corning® Vascade® R2000 fiber solution, Corning® VistaCor® fiber, Corning® MetroCor® fiber, Corning® LEAF® fiber, Corning® SMF-28® ULL fiber, Corning® SMF-28e+® LL fiber, Corning® SMF-28e+® Photonic fiber, Corning® SMF-28e+® fiber, Corning® ClearCurve® ZBL fiber, Corning® ClearCurve® LBL fiber, Corning® ClearCurve® XB fiber, Corning® G.652.D (SC) fiber, Corning® G.657.A1 (SC) fiber, Corning® ClearCurve® OM2 fiber, Corning® ClearCurve® OM3 fiber, Corning® ClearCurve® OM4 fiber, Corning® InfiniCor® SX+ fiber, Corning® InfiniCor® SXi fiber, Corning® InfiniCor® eSX+ fiber, Corning® InfiniCor® 300 fiber, Corning® InfiniCor® CL™ 1000 fiber, Corning® 50/125 fiber, Corning® 62.5/125 fiber, Corning® ClearCurve® VSDN® optical fiber, Corning® SMF-28® Ultra fiber, Corning® ClearCurve® 200 fiber, Corning® ClearCurve® LX multimode fiber, Corning® SMF-28® Ultra 200 fiber, Corning® ClearCurve® OM5 wide band multimode fiber, Corning® TXF™ fiber, Corning® G.652.D(SC) fiber, Corning® SMF-28e+® BB fiber, Corning® SMF-28e+® BB 200 fiber, Corning® SMF-28® Contour Pro fiber, Corning® SMF-28® Contour Fit fiber

Chemical Name: Glass core covered with a UV-curable polymer

Product Use: light transmission

Manufacturer Information

Corning Incorporated
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Phone: (607) 248-2000

Emergency # 24 Hr CHEMTREC U.S. (800) 424-9300
24 Hr CHEMTREC International (703) 527-3887

General Comments

NOTE 1: CHEMTREC telephone number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals.

NOTE 2: Corning® optical fiber products are intended for terrestrial applications with the exception of Corning® Vascade® products which are specially designed and optimized for submarine systems.

***** Section 2 - Hazards Identification *******Emergency Overview**

This is a non-combustible, non-reactive solid material. It is supplied in the form of a glass filament in a polymer coating. Exposure to glass powder or dusts may be irritating to eyes, nose, and throat. Use methods suitable to fight surrounding fire. Combustion products can include irritating and toxic fumes and gases.

Hazard Statements

Dust or powder may be irritating to the eyes, skin, respiratory system and gastrointestinal tract.

Potential Health Effects: Eyes

Dust or powder may irritate eye tissue. Rubbing may cause abrasion of cornea. Symptoms can include redness and tearing.

Potential Health Effects: Skin

The cured polymer coating has been tested and found to be non-irritating to the skin. No components in this product have been found to be absorbed through the skin.

Potential Health Effects: Ingestion

May cause temporary irritation of the throat, stomach, and gastrointestinal tract.

Potential Health Effects: Inhalation

Dusts from the grinding of this product may cause irritation of the nose, throat, and respiratory tract. When inhaled in very large amounts, damage to the lung can occur.

HMIS Ratings: Health: 1 Fire: 0 Physical Hazard: 0 Pers. Prot.: gloves, goggles required only when cutting and splicing fiber.

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

***** Section 3 - Composition / Information on Ingredients *****

CAS#	Component	Percent
65997-17-3	Glass, oxide, chemicals	<100
Not Available	UV-Curable Polymer	<100

Component Related Regulatory Information

This product may be regulated and have exposure limits as identified in Section 8.

Component Information/Information on Non-Hazardous Components

Optical fiber consists of a thin glass filament in a polymer coating. Glass is a solid material produced by combining various raw materials (e.g. oxides, carbonates, etc.), melting these components together, and cooling to a non-crystalline solid having its own unique properties.

Processing of this article may produce dusts or fumes which are considered hazardous under U.S. 29 CFR 1910.1200 (Hazard Communication).

***** Section 4 - First Aid Measures *****

First Aid: Eyes

Eye injuries from glass fibers should be treated by a physician immediately.

First Aid: Skin

Abrasions from any cut or ground fibers should be treated promptly with thorough cleansing of the affected area. Seek medical attention for prompt removal of any particles that may be embedded under the skin.

First Aid: Ingestion

Seek medical attention if material is ingested.

First Aid: Inhalation

If inhaled, remove person to fresh air. If symptoms develop or persist get medical attention.

First Aid: Notes to Physician

Sharp edges of glass may cause mechanical injury.

***** Section 5 - Fire Fighting Measures *****

General Fire Hazards

See Section 9 for Flammability Properties.

Coating portion of this material may burn at elevated temperatures.

Hazardous Combustion Products

Carbon dioxide, carbon monoxide, various hydrocarbon fragments, phosphorus oxide, and possibly some carbon-containing fragments of the polymer coating.

Extinguishing Media

Use methods for the surrounding fire.

Fire Fighting Equipment/Instructions

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

***** Section 6 - Accidental Release Measures *******Containment Procedures**

None necessary.

Clean-Up Procedures

Wear appropriate protective equipment and clothing during clean-up. Collect spilled material using a vacuum cleaner with a HEPA filter.

Evacuation Procedures

None necessary.

Special Procedures

Spilled fibers tend to create a slipping hazard on hard surfaces

***** Section 7 - Handling and Storage *******Handling Procedures**

Avoid inhalation/contact with dust.

Storage Procedures

Store in a dry area.

***** Section 8 - Exposure Controls / Personal Protection *******Exposure Guidelines**

The OSHA air contaminants exposure limits (PELs) are those provided in the 1989 update to 29 CFR 1910.1000. These limits were vacated by OSHA and may not be enforceable.

Component Exposure Limits**Glass, oxide, chemicals (65997-17-3)**

- ACGIH:** 10 mg/m³ TWA (inhalable particles, recommended); 3 mg/m³ TWA (respirable particles, recommended, related to Nuisance particulates)
- OSHA (Final):** 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction, related to Nuisance particulates)
- OSHA (Vacated):** 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction, related to Nuisance particulates)
- Alberta:** 10 mg/m³ TWA (total); 3 mg/m³ TWA (respirable, related to Nuisance particulates)
- British Columbia:** 10 mg/m³ TWA (total dust); 3 mg/m³ TWA (respirable fraction, related to Nuisance particulates)
- Manitoba:** 10 mg/m³ TWA (inhalable particles, recommended); 3 mg/m³ TWA (respirable particles, recommended, related to Nuisance particulates)
- New Brunswick:** 10 mg/m³ TWA (particulate matter containing no asbestos and < 1% crystalline silica, inhalable fraction); 3 mg/m³ TWA (particulate matter containing no asbestos and < 1% crystalline silica, respirable fraction, related to Nuisance particulates)
- NW Territories:** 5 mg/m³ TWA (respirable mass); 10 mg/m³ TWA (total mass, related to Nuisance particulates)
- Nova Scotia:** 10 mg/m³ TWA (inhalable particles, recommended); 3 mg/m³ TWA (respirable particles, recommended, related to Nuisance particulates)
- Nunavut:** 5 mg/m³ TWA (respirable mass); 10 mg/m³ TWA (total mass, related to Nuisance particulates)
- Ontario:** 10 mg/m³ TWA (inhalable particulate); 3 mg/m³ TWA (respirable particulate, related to Nuisance particulates)

Quebec: 10 mg/m³ TWAEV (total dust, containing no asbestos and less than 1% crystalline silica, related to Nuisance particulates)

Saskatchewan: 10 mg/m³ TWA (inhalable fraction); 3 mg/m³ TWA (respirable fraction, related to Nuisance particulates)
20 mg/m³ STEL (inhalable fraction); 6 mg/m³ STEL (respirable fraction, related to Nuisance particulates)

Engineering Controls

If material is ground, cut, or used in any operation which may generate small particles, use appropriate local exhaust ventilation.

PERSONAL PROTECTIVE

EQUIPMENT Personal Protective

Equipment: Eyes/Face

Wear safety glasses with side shields or goggles.

Personal Protective Equipment: Skin

Wear leather or other appropriate work gloves, if necessary for type of operation. The use of coveralls is recommended.

Personal Protective Equipment: Respiratory

Not normally needed. If permissible levels are exceeded, use NIOSH approved dust respirator.

Personal Protective Equipment: General

Use good hygiene practices when handling this material including changing and laundering work clothing after use.

*** Section 9 - Physical & Chemical Properties ***

Appearance:	Translucent white	Odor:	Acrylate odor
Physical State:	Solid	pH:	Not applicable
Vapor Pressure:	Not applicable	Vapor Density:	Not applicable
Boiling Point:	Not applicable	Melting Point:	Not applicable
Solubility (H₂O):	Not applicable	Specific Gravity:	Not applicable
Softening Point:	Not applicable	Molecular Weight:	Not applicable
Auto Ignition:	Not applicable	Flash Point:	Not applicable
Flash Point Method:	Not applicable	Lower Flammability Limit (LFL):	Not applicable
Upper Flammability Limit (UFL):	Not applicable	OSHA Flammability Classification:	Not applicable

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable.

Chemical Stability: Conditions to Avoid

Keep away from heat and incompatible materials.

Incompatibility

Avoid contact with strong oxidizers, strong acids, and halogens.

Hazardous Decomposition

Carbon dioxide, carbon monoxide, various hydrocarbon fragments, phosphorus oxide, and possibly some carbon-containing fragments of the polymer coating.

Possibility of Hazardous Reactions

Will not occur.

***** Section 11 - Toxicological Information *******Acute Dose Effects**

This product contains a thin outer coating of UV-curable polymer. Under normal conditions of use the coating is inert. Dusts may cause mechanical irritation to eyes and skin. Ingestion may cause transient irritation of throat, stomach, and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. Higher exposures may cause difficulty breathing, congestion, and chest tightness.

Component Analysis - LD50/LC50

No LD50/LC50's are available for this product's components.

Epidemiology

No information available.

Carcinogenicity

No additional information.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP

Mutagenicity

No information available.

Teratogenicity

No information available.

Neurological Effects

No information available.

Other Toxicological Information

Under normal conditions of use for this product, the likelihood of inhaling or ingesting amounts necessary for adverse effects to occur is very small.

***** Section 12 - Ecological Information *******Ecotoxicity**

No information available for product.

Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Environmental Fate

No information available for product.

***** Section 13 - Disposal Considerations *******US EPA Waste Number & Descriptions**

You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Waste must be handled in accordance with all applicable regulations. Purchaser is advised to review regulations referenced for applicability as determined by purchaser's use of the product. Glass products may be recycled. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

***** Section 14 - Transportation Information *****

International Transportation Regulations

This product is not regulated as a hazardous material by the United State DOT or Canadian TDG.

US DOT Information

Shipping Name: Not regulated as a hazardous material.

TDG Information

Shipping Name: Not regulated as a dangerous good.

***** Section 15 - Regulatory Information *****

US Federal Regulations

All components of this product are on the TSCA Inventory or are exempt from TSCA inventory requirements.

Component Analysis

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

SARA 311/312

Acute Health No Chronic Health No Fire No Pressure No Reactive No

State Regulations

Other state regulations may apply. Check individual state requirements.

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Glass, oxide, chemicals (related to: Nuisance particulates)	65997-17-3	No	No	Yes	No	No	Yes ¹

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

Additional Regulatory Information

RoHS (2002/95/EC, 2011/65/EC, and (EU) 2015/863) and WEEE (2002/96/EC and 2012/19/EU) Compliance Statement:

This product does not contain lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated biphenyl ethers (includes decabromodiphenyl ethers), di (2-ethylhexyl) phthalate, butyl benzyl phthalate, dibutyl phthalate, diisobutyl phthalate in excess of 0.1% (by weight), or cadmium in excess of 0.01% (by weight).

REACH (1907/2006/EC) Compliance Statement: Notification of presence of substances of concern: Corning optical fibers contain Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (CAS No.: 75980-60-8) in excess of 0.1% (by weight).

REACH Regulation Annex XVII Compliance Statement: Notification of presence of restricted substances: Corning optical fibers contain no restricted substances.

Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Glass, oxide, chemicals	65997-17-3	Yes	Yes	Yes

*** Section 16 - Other Information ***

Other Information

Reasonable care has been taken in the preparation of this information, but Corning makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. Corning makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

SDS History

Revision 5.0022, 16-AUG-2023: Administrative update, REACH statement update
Revision 5.0021, 10-APR-2023: Administrative update, Product name update
Revision 5.0020, 23-JAN-2023: Administrative update, Product name update, REACH statement update
Revision 5.0019, 17-SEP-2021: Administrative update, Product name update, REACH statement update
Revision 5.0018, 28-JUN-2021: Administrative update, Product name update, REACH statement update
Revision 5.0017, 28-MAY-2021: Administrative update, Product name update, REACH statement update
Revision 5.0016, 17-APR-2018: General Comments Update
Revision 5.0015, 17-AUG-2017: Administrative update, Product name update
Revision 5.0014, 15-AUG-2016: Administrative update, RoHS and REACH statement updates
Revision 5.0013, 18-DEC-2014: Administrative update, Product name update
Revision 5.0012, 25-NOV-2013: Administrative update, RoHS statement update
Revision 5.0011, 18-SEPT-2013: Administrative update, Product name update
Revision 5.0010, 23-MAR-2011: Name edit
Revision 5.0009, 07-SEP-2010: Name edit
Revision 5.0008, 20-MAY-2009: Name edit
Revision 5.0007, 08-DEC-2008: Name edit
Revision 5.0006, 19-NOV-2008: Name edit
Revision 5.0005, 05-NOV-2008: Name edit
Revision 5.0004, 04-AUG-2008: RoHS and WEEE compliance statements added. Revision 5.0003, 03-JUN-2008: Name edit
Revision 5.0002, 14-MAR-2008: Name edit
Revision 5.0001, 26-NOV-2007: Phone number update, administrative changes
Revision 5.0000, 26-MAY-2006: Regulatory update, Product name update
Revision 4.0000, 23-SEP-2005: Administrative update, Product name update
Revision 3.0000, 01-JUN-2004: Administrative update. Section 1 revised.
Revision 2.0000, 02-JAN-2004: Consolidation of related optical fiber product SDS sheets. Sections 1,5,6,7,9,11,16 revised.
Revision 1.0000, 07-AUG-2003: New SDS
Questions regarding information found in this document should be directed to the address and phone number shown in Section 1.
If additional information is needed contact:
Corning, Incorporated.
Safety Management Services
MP-HQ-01-E1H22A
Corning, NY 14831
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Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations; CPR = Controlled Products Regulations; DOT = Department of Transportation; DSL = Domestic Substances List; EINECS = European Inventory of Existing Commercial Chemical Substances; EPA = Environmental Protection Agency; IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m³ = milligrams per Cubic Meter; MSHA = Mine Safety and Health Administration; NA = Not Applicable or Not Available; NIOSH = National Institute for Occupational Safety and Health; NJTSR = New Jersey Trade Secret Registry; NTP = National Toxicology Program; OSHA = Occupational Safety and

Health Administration; SARA = Superfund Amendments and Reauthorization Act; TDG = Transport Dangerous Goods;
TSCA = Toxic Substances Control Act; WHMIS = Workplace Hazardous Materials Information System.

End of Sheet C-302