

SAFETY DATA SHEET

Creation Date 29-May-2015 Revision Date 18-Feb-2016 Version 2

1. IDENTIFICATION

Continuous Filament Glass Fiber product: Milled Fiber **Product Name**

731, 737, 739, REV1, REV4, REV7, REV8, VS1304, VS1360 **Synonyms**

Product Code OCCM00101 Recommended Use Industrial

Manufacturer Address Owens Corning Composite Materials, LLC

One Owens Corning Parkway

Toledo, Ohio 43659

Company Phone Number 24 Hour Emergency Phone Number Chemtrec 1-800-424-9300

1-800-GET-PINK or 1-800-438-7465

Emergency Telephone 1-419-248-5330 (after 5 pm ET and weekends)

E-mail address productcompliance@owenscorning.com

Company Website http://www.owenscorning.com/

2. HAZARDS IDENTIFICATION

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

This product is considered an article. 29 CFR 1910.1200(c) definition of an article is as follows: "Article" means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section). and does not pose a physical hazard or health risk to employees

WHMIS Regulatory Status

This product is not considered hazardous by the Canadian Hazardous Products Regulation SOR/2015-17

Continuous Filament Glass Fiber (CFGF) Products are manufactured articles. The definition of manufactured article given by the Canadian Hazardous Products Act R.S.C., 1985, c. H-3 is: any article that is formed to a specific shape or design during manufacture, the

intended use of which when in that form is dependent in whole or in part on its shape or design, and that, when being installed, if the intended use of the article requires it to be installed, and under normal conditions of use, will not release or otherwise cause an

individual to be exposed to a hazardous product

Label elements

The product contains no substances which at their given concentration, are considered to be hazardous to health

OCCM00101 - Continuous Filament Glass Fiber

product: Milled Fiber

Hazards not otherwise classified

(HNOC)

 As manufactured continuous filament glass fibers are non-respirable. May cause temporary skin and mucous membranes itching due to mechanical abrasion effect of fibers. During handling and use, this product may release dust, non-respirable fibers (Particles Not Otherwise Regulated) and very small amount of respirable particulate, some of which are fiber-like in terms of I/d ratio (so-called "shards"). See Section 8 for Exposure Limit Data

Revision Date 18-Feb-2016

Unknown acute toxicity

1% of the product consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

Continuous filament glass fiber > 99 %

Sizing < 1 %

Chemical Name	CAS No.	Weight-%	Trade Secret	
Continuous filament glass fiber, non-respirable	65997-17-3	> 99	*	

^{• *}The exact percentage (concentration) of composition has been withheld as a trade secret or for covering a group of substantially similar products

Comments

The remaining components of this product are non-hazardous or are in a small enough quantity as to not meet regulatory thresholds for disclosure. These components contain no substances or impurities which would influence the classification of this product

4. FIRST AID MEASURES

Description of First Aid Measures

Eye contact

- DO NOT rub or scratch eyes
- · Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes
- If eye irritation persists: Get medical advice/attention

Skin contact

- · Wash off immediately with soap and plenty of cold water
- DO NOT use warm water because this will open up the pores of the skin, which will cause
- further penetration of the fibers
- · DO NOT rub or scratch affected area · If skin irritation persists, call a physician
- · Use a wash cloth to help remove fibers
- If fibers are seen penetrating from the skin, the fibers can be removed by applying and removing adhesive tape so that the fibers adhere to the tape and are pulled out of the skin

Inhalation

- · Move victim to fresh air
- · If symptoms persist, call a physician

Ingestion

- · Rinse mouth with water and drink water to remove fibers from the throat
- · If symptoms persist, call a physician

Note to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable properties

· Not flammable. Only the organic part of the product is combustible and could release small quantities of undetermined hazardous compounds in case of major and prolonged heat or fire

Suitable extinguishing media

- · Use CO2, dry chemical, or foam
- Water spray or fog

Revision Date 18-Feb-2016

OCCM00101 - Continuous Filament Glass Fiber

product: Milled Fiber

Unsuitable extinguishing media • None

Specific hazards arising from the chemical

· No information available

Explosion data

Sensitivity to Mechanical Impact • Not impact sensitive Sensitivity to Static Discharge • Not sensitive

Protective equipment and precautions for firefighters

 As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions • Avoid contact with eyes and skin

Environmental precautions
 See Section 12 for ecotoxicology additional information

Methods and material for containment and cleaning up

Methods for containment • Prevent further leakage or spillage if safe to do so

Methods for cleaning up • Use personal protective equipment as required

· Avoid creating dust

• Take up mechanically, placing in appropriate containers for disposal

 Use an industrial vacuum cleaner with a high efficiency filter to clean up dust and fiber contamination

7. HANDLING AND STORAGE

Precautions for safe handling • Avoid dust formation

Conditions for safe storage, including any incompatibilities

Storage Conditions • Store in a manner which will minimize dust generation and accumulation

Keep product in packaging until use to minimize potential dust generation

Incompatible materials • None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines As manufactured continuous filament glass fibers are non-respirable. Microscopic

examination of dust from milled fiber demonstrated the presence of small amounts of respirable dust particles. Among these respirable particles, some were fiber-like in terms of

I/d ratio (so-called "shards")(see Section 11).

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL		
1	TWA: 1 fiber/cm3 respirable fibers: length >5 µm, aspect ratio >=3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination TWA: 5 mg/m³ inhalable fraction		-		

OCCM00101 - Continuous Filament Glass Fiber

product: Milled Fiber

NIOSH REL Immediately Dangerous to Life or Health

Engineering Controls Provide local exhaust and/or general ventilation to maintain exposure below regulatory and

recommended limits

Local exhaust ventilation should be provided at areas of cutting, milling or other similar

Revision Date 18-Feb-2016

processing to remove airborne dust and fibers

Individual protection measures, such as personal protective equipment

• Wear safety glasses with side shields (or goggles)

Skin and body protection • Wear protective gloves

Wear long-sleeved shirt and long pants

Respiratory protection• If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations

General Hygiene Considerations • Wash hands before breaks and immediately after handling products

· Remove and wash contaminated clothing before re-use

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state Solid - fiber with diameter larger than 6 micron

Appearance Powder, milled glass fiber

Odor Odorless Color White

pH value not applicable
Melting point / freezing point not applicable
Boiling point / boiling range not applicable

Flash point not applicable Cleveland Open Cup Vapor pressure @20 °C (kPa) not applicable mm Hg @ 20 °C

Vapor density not applicable

Water solubility No information available

Autoignition temperature No information available not applicable

Explosive properties
Oxidizing properties
Not an explosive
Not an oxidizer
Not an oxidizer
not applicable
> 800°C
Vapor density
Not an explosive
Not an oxidizer
not applicable

10. STABILITY AND REACTIVITY

Reactivity • No known reactivity

Chemical stability • Stable under normal conditions

Possibility of Hazardous Reactions • None under normal processing

Conditions to avoid

• None known

Incompatible materials

• None known

Hazardous Decomposition Products • None under normal use conditions

• Thermal decomposition can lead to release undetermined compounds in small quantities

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

- · Continuous filament glass fibers are not respirable according to the World Health Organization (WHO) definition. Respirable fibers have a diameter (d) smaller than 3µm, a length (I) larger than 5µm and a I/d-ratio larger than or equal to 3. Fibers with diameters greater than 3 microns, which is the case for continuous filament glass fiber, do not reach the lower respiratory tract and, therefore have no possibility of causing serious pulmonary disease. Continuous filament glass fibers do not possess cleavage planes which would allow them to split length-wise into fibers with smaller diameters, rather they break across the fiber, resulting in fibers which are of the same diameter as the original fiber with a shorter length and a small amount of dust. Microscopic examination of dust from highly chopped and pulverised glass demonstrated the presence of small amounts of respirable dust particles. Among these respirable particles, some were fiber-like in terms of I/d ratio (so-called "shards"). It can be clearly observed however that they are not regular shaped fibers but irregular shaped particles with fiber-like dimensions. To the best of our knowledge, the exposure levels of these fiber-like dust particles measured at our manufacturing plants are of the order of magnitude between 50 to 1000 below existing applicable limits
- The International Agency for Research on Cancer (IARC) in June, 1987, and in October, 2001 (see IARC Monographs on the Evaluation of Carcinogenic risks to humans Man-made Vitreous Fibers Volume 81), categorized continuous filament fiber glass 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 continuous filament fiber glass as a confirmed, probable or even possible cancer causing material

Component Information

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
Germ cell mutagenicity
Carcinogenicity

No sensitization responses were observed.

None known.

The table below indicates whether each agency has listed any ingredient as a carcinogen. This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Chemical Name	ACGIH	IARC	NTP	OSHA		
Continuous filament glass	-	Group 3	-	-		
fiber, non-respirable						
65997-17-3						

ACGIH (American Conference of Governmental Industrial Hygienists)

Continuous filament glass fibers are classified as A4 - Not Classifiable as a Human Carcinogen

IARC (International Agency for Research on Cancer)

The International Agency for Research on Cancer (IARC) in June, 1987, and in October, 2001 (see IARC Monographs on the Evaluation of Carcinogenic risks to humans – Man-made Vitreous Fibers – Volume 81), categorized continuous filament fiber glass 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 continuous filament fiber glass as a confirmed, probable or even possible cancer causing material NTP (National Toxicology Program)

Continuous filament glass fibers are not listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity STOT - single exposure STOT - repeated exposure Target Organ Effects Aspiration hazard This product does not contain any known or suspected reproductive hazards.

No known effects under normal use conditions.

None under normal use conditions.

No known effects under normal use conditions.

Not applicable.

product: Milled Fiber

12. ECOLOGICAL INFORMATION

Persistence and degradability • No information available

Bioaccumulation • No information available

Other adverse effects • No information available

13. DISPOSAL CONSIDERATIONS

Disposal of wastes • Disposal should be in accordance with applicable regional, national and local laws and

regulations

Contaminated packaging • Do not reuse container

US EPA Waste Number• No EPA Waste Number are applicable

14. TRANSPORT INFORMATION

Note: These products are not classified as dangerous goods according to international transport

regulations

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO (air) Not regulated

IATA Not regulated

IMDG Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

Continuous filament glass fiber products are articles. Articles are exempted from registration or listing under chemicals inventories like TSCA (USA), DSL/NDSL (CAN), REACH (EU), ENCS (JP), IECSC (CN), KECL (KR), PICCS (PH), AICS (AUS).

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Continuous filament	Х	Х		Х		Х	Х	Х	Х	Х
glass fiber,										
non-respirable										
65997-17-3										

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

product: Milled Fiber

Revision Date 18-Feb-2016

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard No **Chronic Health Hazard** Nο Fire hazard Nο Sudden release of pressure Nο hazard

Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product is not regulated under California Proposition 65

U.S. State Right-to-Know Regulations

16. OTHER INFORMATION. INCLUDING DATE OF PREPARATION OF THE LAST REVISION

FCs Prepared By

Creation Date 29-May-2015 **Revision Date** 18-Feb-2016

Revision Note This Safety Data Sheet replaces the Material Safety Data Sheet numbered 44988-NAM

revision of October 10, 2014. Changes include new format to meet US OSHA Revised Hazard Communication Standard 2012 (HCS) 29 CFR 1910.1200 requirements and with

the Canadian Hazardous Products Regulation SOR/2015-17 (WHMIS 2015)

Disclaimer

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

End of Safety Data Sheet