SAFE USE INSTRUCTION SHEET

Creation Date 22-May-2015 **Revision Date** 22-May-2015 **Version** 1

0. GENERAL INFORMATION

This Safe Use Instruction Sheet is the document provided by Owens Corning to communicate safe handling and use instructions for **articles** not regulated by OSHA Hazard Communication Standard, 29 CFR 1910.1200.

1. IDENTIFICATION

Product identifier

Product Name **Continuous Filament Glass Fiber: Rovings and Dry Chopped Strands**

Other means of identification

Document Code: **OCCM10001**

Synonyms Dry-Use Chopped Strands, DUCS, Dry Chopped Strand, Type -30®, Roving, Single-end Rovings, Multi-end Rovings, Assembled Rovings, Bulky Rovings, XStrand®S, XStrand®R , XStrand®H, XStrand®S Dry Chopped Strands, Flite Strand™S, ShieldStrand®S, ShieldStrand®R , WindStrand™H, MicroMax products

Recommended Use Industrial use, reinforcement of composite material.

Details of the supplier:

Owens Corning Composite Materials, LLC
One Owens Corning Parkway
Toledo, Ohio 43659

Emergency telephone number:

Company Phone Number 1-800-GET-PINK or 1-800-438-7465
24 Hour Emergency Phone Nbr Chemtrec 1-800-424-9300
Emergency Telephone 1-419-248-5330 (after 5 pm ET and weekends)

Further information:

E-mail address productcompliance@owenscorning.com
Company Website http://www.owenscorning.com

2. HAZARDS IDENTIFICATION

OSHA Regulatory Status and Hazard Classification:
Continuous Filament Glass Fiber (CFGF) Products are articles.
Articles which meet the definition of 29 CFR 1910.1200 (b)(6)(v*) (a manufactured item other than a fluid or a particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has an end use function(s) dependant 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 in paragraph (d) of this section), and does not pose a physical hazard or health risk to employees)* are not regulated by OSHA HazCom Standard.

Other hazard:
May cause temporary skin and mucous membranes itching due to the mechanical abrasion effect of fibers.

As manufactured continuous filament glass fibers are non-respirable.
Under normal conditions of use, CFGF products may release dust or non-respirable fibres.
Under severe process conditions (e.g. shredding, crushing), they may release very small amount of respirable particulate, some of which may be glass shards. See Section 8 for Exposure Limit Data.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CFGF products are made of glass which is given a specific shape (filament) and dimension (filament diameter).
A surface treatment (sizing) is applied to the filaments which are gathered to form a strand. The strand is further processed into a specific product design according to the downstream use of the article. The sizing is a mixture of chemicals, i.e. coupling agent,

film former and polymeric resin/emulsion. The sizing content is usually below 3%.

4. FIRST AID MEASURES

Description of first aid measures

In case of eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
If eye irritation persists, get medical advice/attention

In case of skin contact Wash off immediately with soap and 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 areas.
Remove contaminated clothing.
If skin irritation persists, call a physician

In case of inhalation Move to fresh air. If symptoms persist, call a physician

In case ingestion Accidental ingestion of this material is unlikely.
Rinse mouth with water and drink water to remove fibers from the throat.
If symptoms persist, call a physician.

5. FIRE-FIGHTING MEASURES

Flammable properties: Continuous Filament Glass Fiber products are not flammable, are incombustible and do not support combustion. Only the Sizing is combustible and could release small quantities of hazardous substances in case of major and prolonged heat or fire

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment, e.g. water spray or fog, dry chemical, foam, carbon dioxide (CO2)

Protective equipment and precautions for firefighters: As in any fire, if necessary, wear self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with the skin and the eyes. Avoid dust formation.
Wear appropriate personal protective equipment in case of direct contact with the product (see section 8).

Methods for cleaning up: Avoid dry sweeping
Shovel the major part of spilled material into a container
Use an industrial vacuum cleaner with a high efficiency filter to clean up dust and residual spilled material
After vacuum cleaning, flush away with water

7. HANDLING AND STORAGE

Advice on safe handling: Avoid contact with skin and the eyes. Avoid dust formation.

Storage Conditions: Keep in a dry, cool place.
Keep product in packaging until use to minimize potential dust generation.

Incompatible Material: None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

As manufactured continuous filament glass fibers are not respirable.
Under normal conditions of use, CFGF products may release dust and non-respirable fibers (Particles Not Otherwise Regulated).
Under severe process conditions (e.g. shredding, crushing), they may release very small amount of respirable particulate, some

of which may be glass shards (see section 11).

Exposure Guidelines:

Chemical Name	ACGIH TLV - TWA	OSHA PEL - TWA
Continuous Filament Glass Fiber, non-respirable	Fiber: 1 fiber/cc for respirable fibers* *(*:Fibers longer than 5 µm; diameter less than 3 µm; aspect ratio greater than 5:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase contrast illumination)* Dust: 5 mg/m3 - inhalable fraction	Inert or Nuisance Dust: 5 mg/m3 - Respirable fraction 15 mg/m3 – Total dust

Engineering Controls: Provide local exhaust and/or general ventilation system to maintain exposure below regulatory and recommended limits.
Local exhaust ventilation should be provided at areas of cutting, milling or other processing to remove airborne dust and fibers.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields

Skin and body protection Protective gloves. Long sleeved shirt and long pants.

Respiratory protection If exposure limits are exceeded or in case of upper respiratory tract irritation, a NIOSH/MSHA approved respiratory protection should be worn

General hygiene considerations Wash hands before breaks and immediately after handling the product.
Remove and wash contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Solid – fiber with diameter larger than 6 microns
Odor No significant odor
Color White or off-white
Softening point > 800°C
Density Molten glass: 2,6 (Water = 1)
Solubility Insoluble in water

10. STABILITY AND REACTIVITY

Reactivity & stability Stable under normal storage and use conditions

Hazardous reaction: Hazardous reactions do not occur

Hazardous decomposition products: None in normal use conditions. Hazardous decomposition products may be released in case heat exposure or during a fire.

11. TOXICOLOGICAL 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 (l) larger than 5µm and a l/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 pulverized glass demonstrated the presence of small amounts of respirable dust particles. Among these respirable particles, some were fiber-like in terms of l/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.

IARC: 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.

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

NTP: Continuous filament glass fibers are not listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition).

12. ECOLOGICAL INFORMATION

This product is not expected to be hazardous for the environment.

13. DISPOSAL CONSIDERATIONS

Continuous filament glass fiber waste is a not a hazardous waste.
Dispose in accordance with applicable State or Federal regulations.

14. TRANSPORT INFORMATION

These products are not classified as dangerous goods according to international transport regulations.

15. REGULATORY INFORMATION

International Chemical Inventories:
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).

California Prop 65:
This product is not regulated under California Prop 65.

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

Prepared by	FDr
Creation Date	22-May-2015
Revision Date	22-May-2015
Revision Note	This **Safe Use Instruction Sheet** replaces Material Safety Data Sheet 14672-NAM. This new document has been created to adapt our documentation in accordance with Hazard Communication Standard 2012 (HCS) 29 CFR 1910.1200 requirements.

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 Safe Use Instruction Sheet