



MATERIAL SAFETY DATA SHEET

Chemtrec 24-Hour Emergency Telephone
Domestic North America (800)424-9300
International (703)527-3887

This MSDS complies with 29CFR 1910.1200 (Hazard Communication)

1. PRODUCT AND SUPPLIER IDENTIFICATION

Product Name: ORCA FIBERGLASS ROVING

Product Identification: Continuous Glass Fiber Products, Including Assembled Roving, Direct Roving, Dry Chopped Strands, Wet Chopped Strands, Woven Roving, Stitch Chopped Strand Mat, Power Chopped Strand Mat, Emulsion Chopped Strand Mat, Stitch Combo Mat, Woven Roving Combo Mat, Glass Filament Yarn, Marketable Cake, Cut Strands, Texturized Yarn.

Product Number: VARIOUS

Date of Prep: 10/30/2013

Supplier: Orca Composites
24 S. Idaho St
Seattle, WA 98134
(206)782-0660

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients of Products:

ProductName	Glass, %	Size, %	Binder, %	Water, %
AssembledRoving	98.0~99.5	0.05~1.80	/	0~0.20
DirectRoving	98.7~99.85	0.15~1.10	/	0~0.20
DryChoppedStrands	98.25~99.9	0.10~1.65	/	0~0.10
WetChoppedStrands	87.8~92.0	0~0.20	/	8.0~12.0
WovenRoving	98.8~99.85	0.15~1.00	/	0~0.20
PowerChoppedStrandMat	92.45~98.35	0.35~1.35	1.3~6.0	0~0.20
EmulsionChoppedStrandMat	93.05~96.65	0.35~1.35	3.0~5.4	0~0.20
GlassFilamentYarn	98.6~99.2	0.80~1.20	/	0~0.20
CutStrands	85~92	/	/	8.0-15.0
MarketableCake	99.2~99.7	0.30~0.60	/	0~0.20

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TexturizedYarn	99.2~99.9	0.10~0.60	/	0~0.20
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CAS No. : Fiber glass: 65997-17-3

Size: Size is a mixture of chemicals applied to the glass strands. Most of this mixture is made up of basically non-reactive high molecular weight polymers, often natural ingredients (starches) with no reactive sites, which are not listed as substances in the EINECS nor in the ELINCS appendices.

Sometimes size maybe also contain substances of organo-silane family or other substances. The manufacturer considers this risk as negligible as, even though listed as dangerous products, the concentration is extremely low (under 0.1% of total weight) and they are polymerized during the production of glass fibers production.

3. HAZARDS IDENTIFICATION

With regard to its composition, these products are articles and not classified as hazardous according to European Directive 67/548/EEC and 99/45/EC and their latest amendments.

Classification of Hazards : No information available.

Routes of Entry : Ingestion, inhalation, skin and eye contact.

Health Effects :

Ingestion: Ingestion of the material is unlikely. However, ingestion of the material may cause gastrointestinal disturbance.

Inhalation: Breathing fiberglass dusts and particulates may cause irritation of the nose, throat and respiratory tract.

Skin contact: Fiberglass dusts and particulates may cause temporary irritation.

Eye contact: Fiberglass dusts and particulates may cause temporary irritation to the eyes.

Environmental Effects: Long-term exposure to fiberglass environment may cause temporary effects.

Inflammation and Explosion Hazards : No information available.

4. FIRST-AID MEASURES

Skin Contact: If irritation occurs to the skin, rinse with soap and water. Make sure to refrain from rinsing with warm water since warm water will make the skin pores open to allow fiberglass to penetrate more deeply. If fiberglass penetrates the skin, use a wash cloth to help pull out the fiberglass. To avoid further irritation, do not rub or scratch affected skin. If irritation persists, get medical help. Make sure to refrain from using compressed air to remove fiberglass from the skin.

Eye Contact: Immediately flush eyes with clean water for at least 15 minutes. If irritation persists, get medical help.

Inhalation: If inhaled, immediately remove the affected person to fresh air. If irritation persists, get medical help.

Ingestion: Normally, ingestion of this material is unlikely. If it does occur, watch the person for several days to make sure that gastrointestinal disturbance does not occur. Do not let the person vomit unless required by medical personnel. If disturbance persists, get medical help.

5. FIRE-FIGHTING MEASURES

Flammability Classification: Non-flammable. But the size and packing material may burn.

Hazardous Combustion Products : Primary combustion products are carbon monoxide, hydrogen, carbon dioxide and water. Other undetermined compounds can be released in small quantities.

Fire-Fighting Methods: Use dry chemical, foam, carbon dioxide and water as extinguishing media.

Fire-Fighting Instructions: Fire fighters must use self-contained breathing apparatus and wear full protective gear.

6. ACCIDENTAL RELEASE MEASURES

In case of release to land, the material should be scooped up as waste and put into a special container and stored in a designated area. In case of release of water, the material will sink and disperse along the bottom of waterways or ponds and cannot be easily removed after it is waterborne. However, the material is non-hazardous in water.

7. HANDLING AND STORAGE

Handling : Try to prevent the packing material from being damaged and keep the product inside the packing material to minimize the generation of dusts. Maintain a clean work environment and avoid generation of fiberglass fragments from improper handling.

Storage: Keep product in its packaging until use to minimize potential dust generation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Highest Permissible Concentration: National and international hygiene standards are as follows :

Component	Permissible Exposure Limit of OSHA (8-hr Average Weight)	Permissible Exposure Limit of ACGIH (8hr Average Weight)
Total Dust	15 mg/m ³	10 mg/m ³
Respirable particulates	5 mg/m ³	3 mg/m ³
Respirable Fiber	/	1 fiber/ml

Engineering Control : Production areas are closed off and are required relative humidity is maintained.

Respiratory Protection: Wear a suitable mask when working in an environment where dust concentration is high.

Eye Protection: Wear safety glasses and face shield.

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Body Protection: Normal loose working clothing (long-sleeved shirts and long pants) is recommended. Skin irritation occurs primarily at the contact areas such as around the neck and waist.

Hand Protection: Wear gloves. Skin irritation occurs primarily at the contact areas such as wrists and between the fingers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Product Appearance and Properties: White or off-white solid ; No odor

Flash Point: Not applicable

pH Value: Not applicable

Ignition Temperature: Not applicable

Melting Point : >800°C

Explosion Upper Limit : Not applicable

Boiling Point : Not applicable

Explosion Lower Limit : Not applicable

Relative Density : 2.6 Times that of water.

Solubility (in Water): Insoluble

Relative Vapor Density : Not applicable

Product Use: Fiberglass is an inorganic nonmetal material and is used as Plastics reinforcement and acoustical insulation.

10. STABILITY AND REACTIVITY

Stability: This is a Stable material.

Materials to Avoid: None.

Conditions to avoid: None.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity : None.

Irritability : Fiberglass dusts may cause irritation to skin and eye. Ingestion of fiberglass may cause irritation to the throat, stomach and gastrointestinal tract. Inhalation may cause coughing, sneezing and nose and throat irritation. Experience indicates that inhalation of a large amount of fiberglass may cause difficulty in breathing, congestion and chest tightness.

Carcinogenicity : The International Agency for Research on Cancer (IARC), agency of the World Health Organization (WHO), has determined that fiberglass is a non-carcinogenic material because the evidence is inadequate to prove that fiberglass can cause humans and experimental animals to develop cancer.

12.ECOLOGICALINFORMATION

No data available for this product. Fiberglass products are not listed as a material harmful to animals, plants and fish.

13.DISPOSALCONSIDERATIONS

RCRAHazard class: Non-hazardous.

Disposal Instructions: Dispose waste material according to local environmental regulations.

14.TRANSPORTINFORMATION

Classification and Code of Hazards: None.

UN Code: None. **Packing**

Mark: None. **Packing**

Category: None. **Packing**

Method: None.

Transport Instructions: Rolling and moisture should be avoided in transit.

15.REGULATORYINFORMATION

SARAtitle :

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

CleanAirAct: No ingredient is listed.

WHMIS(Canada) Status: No controlled.

WHMIS classification(s) : None.

SECTION16–OTHERINFORMATION

Preparation Date : October 2013

Prepared by : Orca Composites