

SAFETY DATA SHEET

Ribbon Inc

Ribbon® fiber reinforcements – Original, Triaxial, THM, Ultra-THM

Section 1. Identification

GHS product identifier : Ribbond Fibers

Other means of identification : Not available.

Product type : Solid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Dental product: Reinforced dental resins.

Area of application : Professional applications.

Manufacturer : **Ribbon, Inc.**
1904 THIRD AVE STE 330
Seattle WA 98101
Telephone no.: 1-206-340-8870

e-mail address of person responsible for this SDS : Contact customer service at 1-800-624-4554 for any questions

Emergency telephone number (with hours of operation) : Ribbond, Inc. (8:00 – 16:30 Pacific) U.S. : 1-800-624-4554 International: +1-206-340-8870

Section 2. Hazards identification

OSHA/HCS status : This material is NOT considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN IRRITATION – Not Classified
EYE IRRITATION – Not Classified
SENSITIZATION – Not Classified
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 00.00%

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Do not handle with fingers prior to application of resin. Finger oils can compromise bondability.

Precautionary statements

Date of issue/Date of revision : 10/28/16 **Date of previous issue** : 04/06/16 **Version** : 1 1/11

Section 2. Hazards identification

- Prevention** : Not applicable.
- Response** : Not applicable.
- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Ultra High Molecular Weight Polyethelene
- Other means of identification** : UHMWP.

CASnumber/otheridentifiers

- CAS number** : Not applicable.
- Product code** : Not available.

Ingredient name	Other names	%	CAS number
Polyethylene	Various brand names	100%	9002-88-4

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Descriptionofnecessaryfirstaidmeasures

- Eye contact** : No special measures are required. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Inhalation** : No special measures required. If inhaled, remove to fresh air. Get medical attention if symptoms occur.
- Skin contact** : No special measures required. In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.
- Ingestion** : Not a probably route of exposure. Get medical attention if adverse health effects persist or are severe.

Mostimportantsymptoms/effects.acuteanddelayed

Potentialacutehealtheffects

- Eye contact** : Can cause mechanical irritation.

Section 4. First aid measures

- Inhalation** : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Over-exposuresigns/symptoms

- Eye contact** : Adverse symptoms may include the following mechanical irritation:
 pain or irritation
 watering
 redness
- Inhalation** : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Indicationofimmediatemedicalattentionandspecialtreatmentneeded.ifnecessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed.
 The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
Protection of first-aiders : No specific precautions.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishingmedia

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Not applicable.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 carbon dioxide
 carbon
 monoxides

Special protective actions for fire-fighters : No specific precautions. Normal quantities are minimal.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely
- For emergency responders** : Low release. See also the information in "For non-emergency personnel".

- Environmental precautions** : Low release. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Small Quantity. For professional use only. Place in an appropriate waste disposal container.
- Large spill** : Small Quantity. For professional use only. Place in an appropriate waste disposal container.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : No special measures are required for small quantities under normal and intended conditions of product use. For professional use only. Handle with care and dispose in a safe manner.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully closed with a clip. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

- Appropriate engineering controls** : No special measures are required for small quantities under normal and intended conditions of product use.
- Environmental exposure controls** : No special measures are required for small quantities under normal and intended conditions of product use.

Individual protection measures

- Hygiene measures** : No special measures are required for small quantities under normal and intended conditions of product use.

Section 8. Exposure controls/personal protection

Eyeface protection	: No special measures are required for small quantities under normal and intended conditions of product use.
Skinprotection	: No special measures are required for small quantities under normal and intended conditions of product use.
Hand protection	
Body protection	: No special measures are required for small quantities under normal and intended conditions of product use.
Other skin protection	: No special measures are required for small quantities under normal and intended conditions of product use..
Respiratory protection	: No special measures are required for small quantities under normal and intended conditions of product use.

Section 9. Physical and chemical properties

Appearance

Physical state	: Solid. [Woven fibers]
Color	: White. Natural.
Odor	: None.
Odor threshold	: Not available.
pH	: Not available.
Melting point	: 147° F
Boiling point	: Not available.
Flash point	: Not available.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 0.94 g at 77° F
Solubility	: Insoluble in the following materials: cold water and hot water.
Solubility in water	: Not available.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
SADT	: Not available.
Viscosity	: Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Prevent product contamination. Product from long term ambient air exposure.
- Incompatible materials** : Strong oxidizing agents.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acutetoxicity

Product/ingredient name	Result	Species	Dose	Exposure
Polyethene	Subacute	Rabbit	Not specified	12 weeks

Irritation/Corrosion

None

Sensitization

None.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductivetoxicity

Not available.

Teratogenicity

Not available.

Specific target organtoxicity (singleexposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
UHMWP	Group 3: Not classifiable as to its carcinogenicity to humans	Oral	Oral cavity

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal

Potential acute health effects

- Eye contact** : Causes mechanical eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : No known data.
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : No known significant effects or critical hazards
- Carcinogenicity** : No known significant effects or critical hazards.

Section 11. Toxicological information

- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

- Soil/water partition coefficient (K_{oc})** : Not available.

- Other adverse effects** : No known significant effects or critical hazards.

Section 13. Disposal considerations

- Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not dangerous good	Not dangerous	Not dangerous good
	good.		

Date of issue/Date of revision : 10/28/16 **Date of previous issue** : 04/06/16 **Version** : 1 8/11

Section 14. Transport information

Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : **Transport within user's premises:** No special precautions

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR:**
United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
UHMWP	100%	Yes.	No.	No.	No	No.

SARA313

Not applicable.

Stateregulations

- Massachusetts** : None of the components are listed.
- New York** : None of the components are listed.
- New Jersey** : None of the components are listed.
- Pennsylvania** : None of the components are listed.

California Prop. 65

None of the components are listed.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	0
Flammability		0
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Section 16. Other information

Date of issue/Date of revision	: 04/06/2016
Date of previous issue	: No previous validation
Version	: 1
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	: HCS (U.S.A.)- Hazard Communication Standard International transport regulations

Noticetoreader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.