

Safety Data Sheet

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product identifier**

Product Name	● Polymeric Fiber – H Type
Product Code	MSDS No.: ME-3001-03642
Product Description	● Hollow polymer fiber.

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

Relevant identified use(s)	● Used in air separation processes
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1.3 Details of the supplier of the safety data sheet

Manufacturer	● Air Liquide 2700 Post Oak Blvd. Houston, TX 77056 United States www.us.airliquide.com sds@airliquide.com
Telephone (Technical)	● 713-896-2896
Telephone (Technical)	● 800-819-1704

1.4 Emergency telephone number

Manufacturer	● 800-424-9300 - CHEMTREC
Manufacturer	● +1 703-527-3887 - Outside United States

Section 2: Hazards Identification**EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP	● Not classified
DSD/DPD	● Not classified

2.2 Label Elements

CLP	Hazard statements ● No label element(s) required
DSD/DPD	Risk phrases ● No label element(s) required

2.3 Other Hazards

CLP	● According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.
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DSD/DPD

- According to European Directive 1999/45/EC this preparation is not considered dangerous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label element(s) required**2.3 Other hazards**

OSHA HCS2012

- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

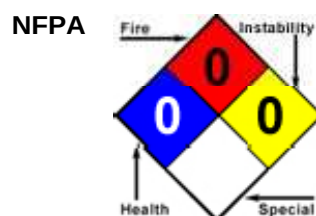
WHMIS

- No label element(s) required

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information**Section 3 - Composition/Information on Ingredients****3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Polyaramide	NDA	N/A	NDA	EUDSD/DPD: No Data Available EU CLP: No Data Available OSHA HCS 2012: No Data Available	NDA

Nylon	NDA	N/A	NDA	EU DSD/DPD: No Data Available EU CLP: No Data Available OSHA HCS 2012: No Data Available	NDA
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Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation	Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
Skin	In case of contact with substance, immediately flush skin with running water for at least 20 minutes.
Eye	In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
Ingestion	Rinse mouth. Do not give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician	No specific actions or treatments recommended related to exposure to this material.
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Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media	- LARGE FIRE: Water spray, fog or regular foam. - SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.
Unsuitable Extinguishing Media	No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards	Some may burn, but none ignite readily.
Hazardous Combustion Products	No data available.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus(SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions	Do not touch or walk through spilled material.
Emergency Procedures	As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. Keep unauthorized personnel away.

6.2 Environmental precautions

- Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up	Avoid generating dust.
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Measures

SMALL DRY SPILLS: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.
 LARGE SPILLS: Cover powder spill with plastic sheet or tarp to minimize spreading.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage**7.1 Precautions for safe handling****Handling**

- Do not use in areas without adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities**Storage**

- Ventilate enclosed areas. Keep container closed.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection**8.1 Control parameters****Exposure Limits/Guidelines**

- Currently there are no applicable exposure limits established for this material.

8.2 Exposure controls**Engineering Measures/Controls**

- Dilution ventilation. Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment**Respiratory**

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Hands

- Wear appropriate gloves.

Skin/Body

- Wear long sleeves and/or protective coveralls.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties**9.1 Information on Physical and Chemical Properties**

Material Description			
Physical Form	Solid	Appearance/Description	White fiber with no odor.
Color	White	Odor	Odorless
Particulate Type	Dust	Odor Threshold	Data lacking
General Properties			
Boiling Point	Data lacking	Melting Point	Data lacking
Decomposition Temperature	< 300 C(< 572 F)	pH	Data lacking
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Insoluble
Solvent Solubility	Data lacking	Viscosity	Data lacking

Explosive Properties	Data lacking	Oxidizing Properties:	Data lacking
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization not indicated.

10.4 Conditions to avoid

- No data available.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- No data available.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Potential Health Effects

Inhalation

Acute (Immediate)

- Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

- Exposure to dust may cause mechanical irritation.

Chronic (Delayed)

- No data available.

Eye

Acute (Immediate)

- Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Chronic (Delayed)

- No data available.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- None

State Right To Know				
Component	CAS	MA	NJ	PA
Nylon	63428-83-1	No	No	No

Inventory						
Component	CAS	CanadaDSL	Canada NDSL	China	EUEINECS	EU ELNICS
Nylon	63428-83-1	No	No	Yes	No	No

Inventory (Con't.)		
Component	CAS	TSCA
Nylon	63428-83-1	No

Canada

Labor

Canada - WHMIS - Classifications of Substances

- Nylon

63428-83-1 Not Listed

Canada - WHMIS - Ingredient Disclosure List

- Nylon

63428-83-1 Not Listed

Environment**Canada - CEPA - Priority Substances List**

- Nylon

63428-83-1 Not Listed

China**Environment****China - Ozone Depleting Substances - First Schedule**

- Nylon

63428-83-1 Not Listed

China - Ozone Depleting Substances - Second Schedule

- Nylon

63428-83-1 Not Listed

China - Ozone Depleting Substances - Third Schedule

- Nylon

63428-83-1 Not Listed

Other**China - Annex I & II - Controlled Chemicals Lists**

- Nylon

63428-83-1 Not Listed

China - Dangerous Goods List

- Nylon

63428-83-1 Not Listed

China - Export Control List - Part I Chemicals

- Nylon

63428-83-1 Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

- Nylon

63428-83-1 Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

- Nylon

63428-83-1 Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

- Nylon

63428-83-1 Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

- Nylon

63428-83-1 Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

- Nylon

63428-83-1 Not Listed

Germany**Environment****Germany - TA Luft - Types and Classes**

- Nylon

63428-83-1 Not Listed

Germany - Water Classification (VwVwS) - Annex 1

- Nylon

63428-83-1 Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Nylon	63428-83-1	Not Listed
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Germany - Water Classification (VwVwS) - Annex 3

• Nylon	63428-83-1	Not Listed
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Other
Germany - Specifically Regulated Chemicals in TRGS

• Nylon	63428-83-1	Not Listed
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Portugal

Other
Portugal - Prohibited Substances

• Nylon	63428-83-1	Not Listed
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United Kingdom

Environment
United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air

• Nylon	63428-83-1	Not Listed
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United Kingdom - Substances Contained in Dangerous Substances or Preparations

• Nylon	63428-83-1	Not Listed
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Other
United Kingdom - Workplace Exposure Limits (WELs) - Substances in Review

• Nylon	63428-83-1	Not Listed
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United Kingdom - List of Dangerous Substances in Water

• Nylon	63428-83-1	Not Listed
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United States

Labor
U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Nylon	63428-83-1	Not Listed
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U.S. - OSHA - Specifically Regulated Chemicals

• Nylon	63428-83-1	Not Listed
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Environment
U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Nylon	63428-83-1	Not Listed
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U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Nylon	63428-83-1	Not Listed
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U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Nylon	63428-83-1	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Nylon	63428-83-1	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Nylon	63428-83-1	Not Listed
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U.S. - CERCLA/SARA - Section 313 - Emission Reporting

- Nylon

63428-83-1 Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

- Nylon

63428-83-1 Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

- Nylon

63428-83-1 Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

- Nylon

63428-83-1 Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

- Nylon

63428-83-1 Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

- Nylon

63428-83-1 Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

- Nylon

63428-83-1 Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

- Nylon

63428-83-1 Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

- Nylon

63428-83-1 Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

- Nylon

63428-83-1 Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information**Last Revision Date**

- 03/February/2015

Preparation Date

- 07/October/2014

Disclaimer/Statement of Liability

To the best of Air Liquide's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this gas mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

Key to abbreviations

NDA = No data available

