



Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

- Product Name** • **Steel Fiber & PP Steel Fiber Blends**
- Synonyms**
- Polyolefin Fibers for Concrete Reinforcement; PP/PE Fibers for Concrete Reinforcement
 - Applicable brands and styles: Novomesh® 850.

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

- Relevant identified use(s)** • Fibers for Concrete Reinforcement
- Use(s) advised against** • Other than intended by manufacturer

1.3 Details of the supplier of the safety data sheet

- Manufacturer**
- Propex Operating Company, LLC
4019 Industry Drive
Chattanooga, TN 37416
United States
www.propexglobal.com
- Telephone (General)** • 1-800-621-0444
- Supplier**
- Propex Concrete Systems Ltd.

1.4 Emergency telephone number

- Manufacturer** • 1-800-424-9300 - Chemtrec - North America
- Manufacturer** • 1-703-527-3887 - Chemtrec - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture

- CLP**
- Not classified

2.2 Label Elements

- CLP**
- Hazard statements** • No label element(s) required

2.3 Other Hazards

- CLP**
- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
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UN GHS

According to: **UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)**

2.1 Classification of the substance or mixture

- UN GHS**
- Not classified

2.2 Label elements

- UN GHS**
- Hazard statements** • No label element(s) required

2.3 Other hazards

- UN GHS**
- Under United Nations Globally Harmonized System for the Classification and Labeling of Hazardous Chemicals (GHS) this product is exempt from regulation as a manufactured article.
-

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 HCS 2012**
- Under United States Regulations (29 CFR 1910.1200(c) - Hazard Communication Standard), the product(s) listed above are exempt as article(s) under stated normal conditions of use.
-

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**
- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.
-

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition		
Chemical Name	Identifiers	%
Steel Fibers	NDA	N/A
..... Proprietary [<i>> 98.5%</i>]	Proprietary	89.645% TO 100%
PP Fibers	NDA	0% TO 9%
..... Polypropylene [<i>98% TO 99%</i>]	CAS:9003-07-0	N/A
..... Lubricants: Fatty acids & esters [<i>0.1% TO 2%</i>]	NDA	N/A

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.

Eye

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.

Ingestion

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Under normal conditions of use, no health effects are expected.

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.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Carbon dioxide, regular dry chemical, regular foam, water.

Unsuitable Extinguishing Media • No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Slight fire hazard due to presence of polypropylene fibers in blend. Steel fibers are not a fire hazard. Reaction of steel fibers with strong acids will generate hydrogen gas, which is highly flammable.

Hazardous Combustion Products

- Incomplete burning of polypropylene component can produce carbon monoxide and/or carbon dioxide and other harmful products. Inhalation of high concentrations of freshly formed oxide fumes may cause metal fume fever, which is characterized by a metallic taste in the mouth, dryness and irritation of the throat, and influenza-type symptoms.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).

Structural firefighters' protective clothing will only provide limited protection.
Move material from fire area if it can be done without risk.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.
- Emergency Procedures**
- No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

- Keep out of drains and water sources.

6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Contain and remove by mechanical means.

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**
- Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

- Storage**
- Store and handle in accordance with all current regulations and standards. Keep separated from strong acids and oxidizing substances. Keep product away from moisture prior to use to avoid deterioration of the paper packaging.

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				
	Result	Czech Republic	Latvia	Russia
Polypropylene (9003-07-0)	TWAs	5 mg/m ³ TWA (dust)	5 mg/m ³ TWA (dust, listed under Polymer dust)	Not established
Proprietary (Proprietary)	TWAs	Not established	Not established	10 mg/m ³ TWA (aerosol)

8.2 Exposure controls

- Engineering Measures/Controls**
- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment

- Respiratory**
- None required; however, use of adequate ventilation is good industrial practice.

- Eye/Face**
- None required; however, use of eye protection is good industrial practice.

- Skin/Body**
- Protective gloves are recommended for handling bags of fiber or loose fiber.

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

Controls

Key to abbreviations

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Metallic gray steel fibers and colorless, light gray, or white polypropylene fibers with no odor.
Color	Metallic gray, colorless, light gray, or white.	Odor	Odorless
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point/Freezing Point	Steel Fibers: >1400C/>2488F; Polypropylene Fibers: 160C/320F
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	7 to 8 for steel fibers; 0.9 for polypropylene fibers	Water Solubility	Negligible < 0.1 %
Viscosity	No data available	Explosive Properties	None
Oxidizing Properties:	No data available		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	315 °C(599 °F) For PP fiber	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

9.2 Other Information

- See section 5 for unusual fire and explosion hazards.

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 will not occur.

10.4 Conditions to avoid

- Avoid contact with strong acids and oxidizers. Keep bags in dry area to minimize

deterioration of the packaging.

10.5 Incompatible materials

- Oxidizing materials and strong acids.

10.6 Hazardous decomposition products

- Incomplete burning of polypropylene component can produce carbon monoxide and/or carbon dioxide and other harmful products. Inhalation of high concentrations of freshly formed oxide fumes may cause metal fume fever, which is characterized by metallic taste in the mouth, dryness and irritation of the throat, and influenza-type symptoms.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant
Skin corrosion/Irritation	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant
Serious eye damage/Irritation	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant
Skin sensitization	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant
Respiratory sensitization	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant
Aspiration Hazard	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant
Carcinogenicity	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant
Germ Cell Mutagenicity	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant
Toxicity for Reproduction	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant
STOT-SE	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant
STOT-RE	EU/CLP • Not relevant UN GHS • Not relevant OSHA HCS 2012 • Not relevant

Potential Health Effects

Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

11.2 Other information

- The toxicological properties have not been fully investigated. Polypropylene was tested in rats by subcutaneous implantation of discs or powder. Local sarcomas were induced at the site of implantation. Subcutaneous injections are not a normal route of exposure. All inorganic pigments, if present in of this product, are considered to be fully bound within the polymer matrix, and therefore, are not readily available under normal conditions.

Section 12 - Ecological Information

12.1 Toxicity

- Propex has not conducted ecological testing on this material.

12.2 Persistence and degradability

- No data available

12.3 Bioaccumulative potential

- No data available

12.4 Mobility in Soil

- No data available

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 specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • Not Applicable – Article.

Section 15 - Regulatory Information

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

SARA Hazard Classifications • None

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Polypropylene	9003-07-0	Yes	No	No	No	Yes
Proprietary	Proprietary	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Proprietary

Proprietary

Uncontrolled product according to WHMIS classification criteria

• Polypropylene

9003-07-0

Uncontrolled product according to WHMIS classification criteria

Canada - WHMIS - Ingredient Disclosure List

• Proprietary

Proprietary

Not Listed

• Polypropylene

9003-07-0

Not Listed

Environment

Canada - CEPA - Priority Substances List

• Proprietary

Proprietary

Not Listed

• Polypropylene

9003-07-0

Not Listed

United States

Labor

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

• Proprietary

Proprietary

Not Listed

• Polypropylene

9003-07-0

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

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

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

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

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

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

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

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

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

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

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

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

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Polypropylene	9003-07-0	Not Listed

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

- *Proprietary*
- Polypropylene

<i>Proprietary</i>	Not Listed
9003-07-0	Not Listed

15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

Section 16 - Other Information**Revision Date**

- 08/March/2016

Preparation Date

- 01/August/2006

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Key to abbreviations

NDA = No Data Available