



## Safety Data Sheet

# POLYACRYLONITRILE

### SECTION 1. IDENTIFICATION

Product Identifier	Polyacrylonitrile Polyacrylonitrile (PAN) Fiber, 3mm
Other Means of Identification	Code: POLYACRPANF3MM03 DSL: 2-Propenenitrile, homopolymer CAS: 25014-41-9
Product Use and Restrictions on Use	For commercial or industrial use.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7  Phone: 800.387.7503 Fax: 888.281.8109 <a href="http://www.cleartech.ca">www.cleartech.ca</a>
24-Hour Emergency Phone	306.664.2522

### SECTION 2. HAZARD IDENTIFICATION

Combustible dusts Category 1

#### Pictograms

No pictogram

**Signal Word: Warning**

#### Hazard Statements

May form combustible dust concentrations in air.

#### Precautionary Statements

##### Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### Hazards Not Otherwise Classified

Not available

### SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### Hazardous Ingredients:

<i>Chemical name</i>	<i>Common name(s)</i>	<i>CAS number</i>	<i>Concentration (w/w%)</i>
2-Propenenitrile, homopolymer	Polyacrylonitrile	25014-41-9	≥97%



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## SECTION 4. FIRST-AID MEASURES

### Description of necessary first-aid measures

Inhalation	Get medical advice / attention if you feel unwell or are concerned.
Ingestion	Get medical advice / attention if you feel unwell or are concerned.
Skin contact	Rinse skin with lukewarm, gently flowing water / shower for 5 minutes or until product is removed. If skin irritation occurs or if you feel unwell: Get medical advice / attention.
Eye contact	Gently brush product off face. Do not rub eyes. Let the eyes water naturally for a few minutes. Look right and left, then up and down. If particle / dust does not come out, cautiously rinse eye with lukewarm gently flowing water for 5 minutes or until particle / dust is removed, while holding the eyelids open. If eye irritation persists: Get medical advice / attention. Do not attempt to manually remove anything from the eyes.

### Most important symptoms and effects, both acute and delayed

Inhalation	May cause respiratory irritation.
Ingestion	May cause discomfort or nausea.
Skin contact	Not available
Eye contact	May cause eye irritation and redness.
Further information	For further information see Section 11 Toxicological Information.

## SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media	Extinguish fire using extinguishing agents suitable for the surrounding fire.
Unsuitable extinguishing media	Water jets are not recommended in fires involving chemicals.
Specific hazards arising from the chemical	May form combustible dust concentrations in air. In the event of a fire oxides of carbon and nitrogen may be released.
Special protective equipment for fire-fighters	Wear NIOSH-approved self-contained breathing apparatus and chemical-protective clothing.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment (See Section 08 Exposure Controls and Personal Protection). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Stay upwind, ventilate area.
Environmental Precautions	Prevent material from entering waterways, sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.
Methods and Materials for Containment and Cleaning Up	Dry sweeping is not recommended. Pre-dampening the material or use of a vacuum is preferred. Shovel into clean, dry, labeled containers and cover. Flush area with water.

## SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling	Use sensible workplace hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Inspect containers for damage or leaks before handling. If the original label is damaged or missing replace with a workplace label. Have suitable emergency equipment for fires, spills and leaks readily available.
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Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight, away from heat sources and incompatible materials. Always store in original labeled container. Keep containers tightly closed when not in use and when empty. Empty containers may contain hazardous residues. Protect label and keep it visible.
Incompatibilities	Oxidizing agents, such as oxygen, hydrogen peroxide, sulphuric and nitric acids, hypochlorites and permanganates.

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## SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Exposure limits

There are no known exposure limits for this product.

### Engineering controls

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
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### Protective equipment

The following are recommendations only. It is the responsibility of the employer / user to conduct a hazard assessment of the process in which this product being used and determine the proper engineering controls and PPE for their process. Additional regulatory and safety information should be sought from local authorities and, if needed, a professional industrial hygienist.

Eye and face protection	Where there is potential eye or face exposure, safety glasses are recommended. Contact lenses are not recommended; they may contribute to severe eye injury.
Hand and body protection	Where handling this product it is recommended that skin contact is avoided.
Respiratory protection	If exposed or concerned, wear appropriate dust mask. Reevaluate any respiratory protection used regularly, as their protective effects tend to degrade over time.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Colour	Not available
Odour	Odourless
Odour threshold	Not available
pH	Not available
Melting point / freezing point	220-300 °C
Initial boiling point and boiling range	Not available
Flash point	Not applicable
Evaporation rate	Not available
Flammability	May form combustible dust concentrations in air.
Upper flammable limit	Not available
Lower flammable limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1.16-1.18 g/cm <sup>3</sup>



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Solubility	Insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not applicable
Specific gravity	Not applicable
Particle characteristics	Particle size: ~3 mm (length), 7-13 micron (diameter) Particle shape: Fiber

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions of use.
Stability	This product is stable if stored according to the recommendations in Section 07.
Possibility of hazardous reactions	Hazardous polymerization is not known to occur.
Conditions to avoid	Avoid contact with incompatible materials.
Incompatible materials	Oxidizing agents, such as oxygen, hydrogen peroxide, sulphuric and nitric acids, hypochlorites and permanganates.
Hazardous decomposition products	Thermal decomposition may produce oxides of carbon and nitrogen.

#### SECTION 11. TOXICOLOGICAL INFORMATION

##### Acute Toxicity (LD50 / LC50 values)

There is no available toxicity data for this product.

##### Toxic Health Effect Summary

Chemical characteristics	No known effects
Skin	Not available
Ingestion	May cause discomfort or nausea.
Inhalation	May cause respiratory irritation.
Eye contact	May cause eye irritation and redness.
Sensitization	This product and its components at their listed concentration have no known sensitizing effects.
Mutagenicity	This product and its components at their listed concentration have no known mutagenic effects.
Carcinogenicity	This product and its components at their listed concentration have no known carcinogenic effects.
Reproductive toxicity	This product and its components at their listed concentration have no known reproductive effects.
Specific organ toxicity	This product and its components at their listed concentration have no known effects on specific organs.
Aspiration hazard	Not available
Synergistic materials	Not available



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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

there is no available toxicity data for this product.

Biodegradability	The domestic substance list categorizes polyacrylonitrile as persistent.
Bioaccumulation	The domestic substance list categorizes polyacrylonitrile as non-bioaccumulative.
Mobility	Insoluble in water
Other adverse effects	Not available

## SECTION 13. DISPOSAL CONSIDERATIONS

Waste From Residues / Unused Products	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

## SECTION 14. TRANSPORT INFORMATION

UN number	This product does not meet the definition of dangerous goods per Part 2 of Transport of Dangerous Goods Regulations
UN proper shipping name and description	Not available
Transport hazard class(es)	Not available
Packing group	Not available
Excepted quantities	Not available
Environmental hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special precautions	No special precautions
Transport in bulk	ERAP index: not available
Additional information	MARPOL 73/78 and IBC Code: This product is not listed in Chapter 17 of the IBC Code.
	Secure containers (full or empty) during shipment and ensure all caps, valves, or closures are secured in the closed position.

## SECTION 15. REGULATORY INFORMATION

All components of this product appear on the domestic substance list.

## SECTION 16. OTHER INFORMATION

Date of latest revision: January 13, 2026

Note: The responsibility to provide a safe workplace remains with the buyer / user. The buyer / user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages incurred by the use of this material. It is the responsibility of the buyer / user to comply with all applicable laws and regulations regarding handling, using, reselling and shipping this product.



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Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the RDC Responsible Distribution® initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns, please call our customer service center.

### References:

- 1) *NIOSH Pocket Guide to Chemical Hazards*; U.S. Department of Health and Human Services, <https://www.cdc.gov/niosh/npg/default.html>
- 2) *WorkSafe BC E-Limit*; Workers' Compensation Board of British Columbia, <https://elimit.online.worksafebc.com/>
- 3) *ECHA - Registered Substance Dossier*; European Chemicals Agency, <https://chem.echa.europa.eu/100.131.299/overview>
- 4) *Transportation of Dangerous Goods Regulations*; Transport Canada, <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2001-286/index.html>
- 5) Globally Harmonized System of Classification and Labeling of Chemicals (GHS) *Seventh revised edition*
- 6) International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) 2007 Edition
- 7) The ACS Style Guide