

Product Name	Oxidized PAN (OPAN) Fiber		
Revision Number	New	Revision Date	
		Issue Date	01 November 2025

SECTION 1. IDENTIFICATION

Product Name	Oxidized PAN (OPAN) Fiber	
Product Code	OPSTD, OPCRP	
Synonyms	Oxidized/stabilized polyacrylonitrile	

Recommended Use	Industrial applications	
Restrictions on Use	None known	

COMPANY IDENTIFICATION

MiniFIBERS, Inc.
 2923 Boones Creek Rd
 Johnson City, TN 37615
 (423) 282-4242

TRANSPORTATION EMERGENCY PHONE NUMBERS

(423) 282-4242

SECTION 2. HAZARD IDENTIFICATION**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910.1200**

Combustible Dust

LABEL ELEMENTS

Signal Word	Warning
Hazard Statement(s)	May form combustible dust concentrations in air
Precautionary Statement(s)	Prevent dust accumulation to minimize explosion hazard. Material can accumulate static charges which may cause ignition. Keep away from heat/sparks/open flames/hot surfaces. Keep container tightly closed. Handle in accordance with good industrial hygiene and safety practices
Pictogram	No pictogram

OTHER HAZARDS

Hazard Not Otherwise Classified (HNOC): None as defined under Federal OSHA Hazard Communication Standard (29CFR 1910.1200)

Product Name	Oxidized PAN (OPAN) Fiber		
Revision Number	New	Revision Date	
		Issue Date	01 November 2025

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS #	Concentration (%w/w)
Oxidized or stabilized Polyacrylonitrile (PAN) fiber	OPAN Fiber	308060-39-1	>99%
Lubricant		proprietary	0-1%

NOTES

Fiber article

Any hazardous lubricant component is present at <0.1%

See Technical Datasheet for moisture content

SECTION 4. FIRST AID MEASURES

GENERAL INFORMATION

No hazards which require special first aid measures

Inhalation	Move to fresh air. If symptoms persist, contact physician
Skin contact	Wash off with soap and water. If symptoms persist, contact physician
Eye contact	In case of contact with eyes, remove contact lens if present, rinse immediately with plenty of water and seek medical advice.
Ingestion	Wash out mouth with water. Seek medical attention
Most important symptoms and effects (acute and delayed)	Dusts may irritate the respiratory tract, skin and eyes. May cause allergic skin disorders in sensitive individuals.
Note to physician	Treat symptomatically

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. Water fog. Dry chemical. Foam. Carbon dioxide (CO2). Apply extinguishing media carefully to avoid creating airborne dusts.
Unsuitable extinguishing media	Do not use water jet as an extinguisher.
Specific hazards during fire fighting	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in presence of an ignition source is a potential dust explosion hazard
Hazardous combustion products	Gases may form such as: carbon monoxide, carbon dioxide, minute amount of nitrous oxide, hydrogen cyanide and water.
Further information	Minimize dust generation and accumulation

Product Name	Oxidized PAN (OPAN) Fiber		
Revision Number	New	Revision Date	
		Issue Date	01 November 2025

Special protective equipment	Wear approved positive pressure self-contained breathing apparatus in addition to standard firefighting gear
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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, emergency procedures	Keep unnecessary personnel away. Use only non-sparking tools. Dust deposits should not be allowed on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Dust mask and goggles are recommended to prevent possible irritation from airborne fibers.
Environmental precautions	Avoid releases to the environment
Methods and materials for containment and clean-up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Vacuum or sweep up and place in a standard disposal container. Minimize dust generation.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling	Minimize dust generation and accumulation. Keep away from heat and sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity when subjected to friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Advice on safe handling	Wash thoroughly after handling Use only in areas provided with ventilation Minimize dust generation and accumulation
Conditions for safe storage	Keep containers tightly closed in a dry, cool, and well-ventilated space. Do not store near highly flammable materials; avoid proximity or contact with flames or sparks; avoid exposure to sunlight.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENTS WITH WORKPLACE CONTROL PARAMETERS

US OSHA	Type	Value	Form
Nuisance dust	TWA	5 mg/m ³	Respirable fraction
		15 mg/m ³	Total dust
ACGIH	Type	Value	Form
Dust	TWA	10 mg/m ³	Inhalable particles

Product Name	Oxidized PAN (OPAN) Fiber		
Revision Number	New	Revision Date	
		Issue Date	01 November 2025

ACGIH TLV	Type	Value	Form
Dust	TWA	3 mg/m ³	Respirable particles

Note: Limits/standards shown for guidance only. Follow applicable regulations.

Engineering Measures	Good general ventilation should be used. Ventilation rates should match to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Maintain airborne levels to acceptable level
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PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection	If engineering controls do not maintain airborne concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. .
Eye protection	Wear safety glasses (with side shields). If there is a potential for exposure to particles which could cause eye discomfort, wear goggles.
Hand protection	No special requirements
Skin and body protection	Wear suitable protective clothing
Protective measures	Ensure eye flushing systems and safety showers are located close to the working spaces.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Practice good housekeeping.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White or off-white fibers
Odor	Not determined
Odor threshold	Not determined
pH	Not determined
Melting point/range	Not determined
Freezing point	Not determined
Boiling point/range (760 mmHg)	Not determined
Flash point	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper flammability/upper explosion limit	Not determined

Product Name	Oxidized PAN (OPAN) Fiber		
Revision Number	New	Revision Date	
		Issue Date	01 November 2025

Lower flammability/lower explosion limit	Not determined
Vapor pressure	Not determined
Relative vapor density (air = 1)	Not determined
Relative density (water = 1)	$\geq 1.35 \text{ g/cm}^3$
Water solubility	Not soluble
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	670°C
Decomposition temperature	500°C
Viscosity	Not applicable
Explosive properties	Not applicable
Oxidizing properties	Not applicable

All data is based on information from supplier SDS. Minifibers has performed no testing of this product.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Not determined
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	Not determined
Conditions to avoid	Minimize dust generation and accumulation Avoid hot surfaces, sparks, open flames, other ignition sources.
Incompatible materials	Strong bases, and oxidizing materials
Hazardous decomposition products	Decomposition not expected under normal conditions. For hazardous combustion products see Section 5

SECTION 11. TOXICOLOGY INFORMATION

INFORMATION ON LIKELY ROUTES OF EXPOSURE

Inhalation	Remarks: Fibers or fiber dust may irritate respiratory system
Skin contact	Remarks: Dust or powder may irritate the skin
Eye contact	Remarks: Fibers or fiber dust may irritate eyes
Ingestion	Remarks: No specific data

ACUTE TOXICITY

Remarks	No data available
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SKIN CORROSION/IRRITATION

Remarks	Prolonged skin contact may cause temporary irritation
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Product Name	Oxidized PAN (OPAN) Fiber		
Revision Number	New	Revision Date	
		Issue Date	01 November 2025

SERIOUS EYE DAMAGE/EYE IRRITATION

Remarks	Direct contact with eyes may cause temporary irritation
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RESPIRATORY SENSITIZATION

Remarks	No data available
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SKIN SENSITIZATION

Remarks	No data available
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STOT (SINGLE EXPOSURE)

Remarks	No data available
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STOT (REPEAT EXPOSURE)

Remarks	No data available
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ASPIRATION TOXICITY

Remarks	Not classified based on available data
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CARCINOGENICITY

Remarks	No data available
IARC	3 – Fiber not classified as carcinogen to humans.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens
NTP	No ingredient on this product present at levels greater than or equal to 0.01% is identified as a known or anticipated carcinogen by NTP

REPRODUCTIVE TOXICITY

Remarks	No data available
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MUTAGENICITY

Remarks	No data available
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All Section 11 information based on supplier SDS. No testing has been performed by Minifibers.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

GENERAL INFORMATION

No data available

ECOTOXICITY

No data available

Product Name	Oxidized PAN (OPAN) Fiber		
Revision Number	New	Revision Date	
		Issue Date	01 November 2025

PERSISTENCE AND DEGRADABILITY

No data available

BIOACCUMULATIVE POTENTIAL

No data available

MOBILITY IN SOIL

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Waste from residues	DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. Landfill sites – industrially approved. Dispose of in accordance with federal, state, and local regulations. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.
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SECTION 14. TRANSPORTATION INFORMATION

DOT	Not regulated as a dangerous good
IMO-IMDG Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated as a dangerous good Note: Consult IMO regulations before transporting ocean bulk
ICAO/IATA	Not regulated as a dangerous good

This information is not intended to convey all specific regulator or operational requirements/information related to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of this material.

HTS INFORMATION:

Commodity: Oxidized Polyacrylonitrile Fibers

HTS Code: 5503.30

NMFC INFORMATION:

Commodity: Fibers NOI

NMFC Item Number: 68310

Product Name	Oxidized PAN (OPAN) Fiber		
Revision Number	New	Revision Date	
		Issue Date	01 November 2025

SECTION 15. REGULATORY INFORMATION

U.S. AND INTERNATIONAL REGULATIONS FOR THIS SECTION TO BE BASED ON SUPPLIER SDS OF THE FIBER AND LUBRICANT (WHERE APPLICABLE)

U.S. STATE REGULATIONS

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):	This product contain may expose you to trace amounts/impurity diethanolamine (CAS 111-42-2) which is listed as causing cancer in the State of California. No other component known to the State of California to cause cancer or reproductive toxicity is present at levels greater than 0.1% For more information go to www.P65Warnings.ca.gov
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U.S. FEDERAL REGULATIONS

TSCA	This product is considered an article and is not subject to TSCA requirements All components of this product are in compliance with the inventory listing requirements of the U.S
SARA 302 Extremely hazardous substance	Not listed
SARA 311/312 Hazardous chemical	Yes Classified hazard categories: Combustible dust
SARA 313 (TRI Reporting)	This product does not contain any components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

INTERNATIONAL REGULATIONS

REACH	According to Article 3(3) fibers can be defined as articles not requiring registration
Canada DSL/NDSL	Based polymer polyacrylonitrile (PAN) CAS 25014-41-9 is on Canadian DSL

SECTION 16. OTHER INFORMATION

OTHER INFORMATION

Refer to NFPA 654. Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

FULL TEXT OF OTHER ABBREVIATIONS

Add any additional abbreviations and text to table based on content

DOT	US Department of Transportation
DSL/NDSL	Domestic Substance List/Non-Domestic Substance List
GHS	Global Harmonized System
HTS	Harmonized Tariff Schedule

Product Name	Oxidized PAN (OPAN) Fiber		
Revision Number	New	Revision Date	
		Issue Date	01 November 2025

IARC	International Agency for the Research of Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
MARPOL	International Convention for the Prevention of Pollution from Ships
NTP	National Toxicology Program
OSHA	US Safety and Health Act
RCRA	Resource Conservation and Recovery Act
REACH	Regulation (EC) No 1907/2006 of the European Parliament and the Council covering the Registration, Evaluation, Authorization and Restriction of Chemicals
SARA	Superfund Amendment and Reauthorization Act
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
TSCA	US Toxic Substance Control Act

REVISION DATE

New SDS

INFORMATION SOURCE AND REFERENCES

This SDS is based on information provided by suppliers and internal references within our company.

Information related to REACH and articles: ECHA. (2017). Guidance on requirements for substances in articles. Version 4.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of this publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered warranty or quality specification. The information relates only to the specified material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.