

# SAFETY DATA SHEET



HIPER FIBER

## 1. IDENTIFICATION

PRODUCTION NAME: Steel Fiber for Reinforcement of Ultra-High Performance Concrete

OTHER IDENTIFICATION: Cold-Drawn High-Carbon Steel Fiber

RECOMMENDED USE: Reduce probability for shrinkage and early cracking in ultra-high performance concrete. Provide enhanced energy dissipation, tensile strength, and post cracking toughness in ultra-high performance concrete.

MANUFACTURER INFORMATION: HIPER FIBER LLC, 330 East Liberty, Lower Level, Ann Arbor, 48104 US

EMERGENCY CONTACT: During business hours: (734) 629-6399

## 2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: This product does not require any hazard warning on the label under OSHA criteria.

GHS CLASSIFICATION: Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).

POTENTIAL HEALTH EFFECTS:

Eye contact: Steel fibers can cause cuts or punctures. May cause eye irritation.

Skin contact: Steel fibers can cause cuts or punctures.

Inhalation: No significant irritation expected.

Ingestion: Steel fibers can cause cuts or punctures. Seek medical attention if ingested.

HMIS HAZARD ID: (Health: 0) (Flammability: 0) (Reactivity: 0)

NFPA HAZARD ID: (Health: 0) (flammability: 0) (Reactivity: 0)

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

The ingredient list below identifies those components which meet regulation reporting criteria.

MATERIAL	CAS#	CONTENTS (%WT)
Iron (Fe)	7439-89-6	Various
Carbon(C)	7440-44-0	Various
Manganese (Mn)	7439-96-5	Various
Silicon (Si)	7440-21-3	Various
Zinc (Zn)	7440-66-6	Various
Copper (Cu)	7440-50-8	Various



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## 4 FIRST AID MEASURES

EYE: Flush eyes with plenty of water. Get medical attention if irritation persists.

SKIN: Symptomatic treatment.

INHALATION: Not applicable.

INGESTION: Seek medical attention.

## 5 FIRE FIGHTING MEASURES

FLASHPOINT: Not applicable.

AUTOIGNITION TEMPERATURE: Not determined.

FLAMMABILITY CLASSIFICATION: None

EXTINGUISHING MEDIA: Agents approved for Class A hazards (e.g., halogenated agents, foam, steam) or water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None identified.

FIRE FIGHTING EQUIPMENT: Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

HAZARDOUS COMBUSTION PRODUCTS: Incomplete burning can produce carbon monoxide and/or carbon dioxide and other harmful products.

## 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Protective equipment and emergency procedures: No data available.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP: Product requires no spill or leak containment. Dispose of damaged material in accordance with all governmental regulations.

## 7 HANDLING AND STORAGE

HANDLING:

Risk of laceration from sharp cut ends.

Observe normal hygiene standards.

CAUTION! Packages of this material may contain extreme internal stresses and stored mechanical energy. Use standard industry practices and/or consult your company's safety department for proper procedures for handling, opening and cutting.

STORAGE:

Store in a dry area.

Storage temperature: No special requirements.

Keep away from acids, oxidizing agents.

Suitable packaging material: synthetic material, wood.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS: None of the components have assigned exposure limits.



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APPROPRIATE ENGINEERING CONTROLS: Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

EYE: Use of eye protection is a good industrial practice.

SKIN: Use suitable protective gloves, safety boots/clothing is a good industrial practice.

RESPIRATORY PROTECTION: Not required.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Metal fibers

ODOR: Essentially Odorless

PH: Not determined

VAPOR PRESSURE: Not determined

VAPOR DENSITY: Not determined

BOILING POINT: Not determined

MELTING POINT: Not determined

SOLUBILITY IN WATER: Insoluble in water

SPECIFIC GRAVITY (WATER = 1): 7.8

## 10 STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: None identified.

MATERIALS TO AVOID: Strong acids and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

HAZARDOUS POLYMERIZATION: Will not occur.

## 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:

Eye Irritation: No data available.

Skin Irritation: No data available.

Oral: No data available.

Dermal: No data available.

OTHER TOXICITY DATA: Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

## 12 ECOLOGICAL INFORMATION

ECOTOXICITY: No data available.

MOBILITY IN SOIL: No data available.

BIOACCUMULATIVE POTENTIAL: No data available.



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OTHER ADVERSE EFFECTS: No data available.

### 13 DISPOSAL CONSIDERATIONS

Remove waste in accordance with local and/or national regulations.

### 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: Not regulated for transport.

SEA (IMO/IMDG): No data available.

AIR (ICAO/IATA): No data available.

EUROPEAN ROAD/RAIL (ADR/RID): No data available.

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: No data available.

### 15 REGULATORY INFORMATION

FEDERAL REGULATIONS (USA): All materials in this product are listed on the TSCA inventory. This product contains no ingredients subject to reporting under SARA 313 (40 CFR Part 372) or SARA Section 311/312.

INTERNATIONAL REGULATIONS: No data available.

### 16 OTHER INFORMATION

PREPARED BY: HiPer Fiber LLC

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