Safety Data Sheet

ADVANCED FIBER TECHNOLOGY

Section 1 – Product and Company Information:

Product Identifier: SMA Cellulose Fibers **Recommended Use: Asphalt Road Paving**
Manufacturer's Name / Address / Phone Number: Advanced Fiber Technology,
100 Crossroads Blvd., Bucyrus, Ohio 44820
Emergency Ph. (419)-562-1337 (8:00 am to 5 pm EST Mon-Fri)
Composition: Secondary wood fiber paper stock (recycled wastepaper) and limestone.
Chemical Family: Cellulose Fibers **Effective:** 1 May 2023

Section 2 - Hazard Identification:

SMA Cellulose Fibers contains limestone. Limestone is a naturally occurring mineral complex that contains varying quantities of crystalline silica (quartz).

Hazard Classification: Carcinogenicity Category 1A
Specific Target Organ Toxicity –Category 2 (lungs)
Hazard Pictogram:

Signal Word: Danger
Hazard Statements:
May cause damage to lungs / cancer through prolonged / repeated inhalation exposure and failure to wear PPE.

Precautionary Statements:
Obtain instructions before use.
Do not handle until all safety precautions have been read and understood.

Wear eye protection/face protection (see section 8).
Do not breathe dust/fume/gas/mist/vapors/spray.

Dispose of contents/container to in accordance with local/regional/national/international regulations (see section 13).

Other Hazards Which Do Not Result In Classification: None

Section 3 – Composition and Ingredient Information:

Component	CAS#	% By Weight
Cellulose Fiber	65996-61-4	≤90%
Dolomitic Limestone	65996-61-4	≤10%
Boric Acid	10043-35-3	≤2%

Section 4 – First Aid Measures:

Ingestion: Not intended for ingestion. Not a supplement or replacement for human or animal dietary fiber. See physician if ingested.
Skin: Does not normally itch or irritate skin. If skin is broken or sensitive, wash with soap and water.
Inhalation: Dust may irritate nose or throat. Wear NIOSH N95 respirator when exposed to dust levels above exposure limits. If continued difficulty exists, move to fresh air. Seek medical attention if conditions persist. Smoking will impair the ability of the lungs to clear themselves of dust.
Eyes: Dust may cause eye irritation. Wear goggles if eye irritation. Use liquids suitable to cleanse eye for several minutes. If irritation persists, seek medical attention.

Section 5 - Fire Fighting and Explosion Hazards:

Extinguishing Media: Water or any other agent rated for a wood fire (Type A).
Fiber Flash Point: ≥ 550 degree F
Unusual Fire / Explosion Hazards: Do not contact with oxidizing agent.
Special Fire Fighting Procedures: Use standard procedures with full protective clothing and self-contained breathing equipment.

Section 6 – Accidental Release Measures;

General: No special handling is required. Use good housekeeping to minimize dust levels below the exposure limits listed in Section 8.
In Case of Spill: Shovel or sweep up and place in container for disposal per regulations.
Transportation: AFT SMA Fibers are not a DOT Hazardous Substance.

Section 7 - Handling and Storage Information:

General: No special handling is required. Use good housekeeping to minimize dust levels below the exposure limits listed in Section 8. Wash hands after use.
In Case of Spill: Shovel or sweep up and place in container for disposal.
Storage: Dry storage is recommended at ambient temperatures and atmosphere.
Transportation: AFT SMA Fibers are not a DOT Hazardous Substance.
Inhalation: Dust may irritate nose or throat. Wear NIOSH N95 respirator. If continued difficulty exists, move to fresh air. Seek medical attention if conditions persist.
Eyes: Dust may cause eye irritation. Wear goggles if eye irritation. Use fresh water to cleanse eye for several minutes. If irritation persists, seek medical attention.
Avoid: Do not store near open flames or allow contact with acids or oxidizers.

Section 8 - Personal Protection Information:

Exposure Control: Exposure limits are for individual components in their normal state, not the product mixture.

Cellulose fiber:
OSHA PEL-TWA = 15 mg/m^3 total dust
OSHA PEL–TWA = 5 mg/m^3 respirable faction
Cal OSHA PEL = 10 mg/m^3 total dust
ACGIH TLV-TWA = 10 mg/m^3 total

Limestone:
OSHA PEL-TWA = 15 mg/m^3 total dust
OSHA PEL-TWA = 5 mg/m^3 respirable faction
ACGIH TLV-TWA = 10 mg/m^3 total dust

ACGIH TLV-TWA = 5 mg/m^3 respirable faction

Inhalation / Ingestion: Use a NIOSH approved N95 dust mask or respirator.
Eyes: Wear ANSI approved safety goggles if annoying to eyes.
Broken Skin: If skin is broken or sensitive, cover. Wash hands / skin after use.
Thermal Hazards: None

Section 9 – Physical / Chemical Characteristics

Appearance: Grayish milled fiber
Bulk Density: 3 lb/ft^3 compressed per ASTM C739
Boiling, Melting: Not Applicable
Vapor Pressure: Negligible @ 20C
Solubility: Insoluble, dispersible
Odor: None to slight paper odor.
pH: 6.0 to 8.0
Viscosity: Not Applicable
Reactivity in Water: None
Fiber Flash Point: ≥ 550 degree F

Section 10 – Stability and Reactivity Data

Stability: Stable if no acids present.
Incompatible Materials: Limestone reacts with acids forming CO_2. Do not allow product to come in contact with acids or oxidizing agents.
Hazardous Decomposition Products: None

Section 11 – Toxicological Information

Routes of Exposure: Inhalation is the most significant route of exposure in occupational and other settings. Dermal exposure is not usually a concern as cellulose and limestone is poorly absorbed through intact skin. This product is not intended for ingestion.

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics: Products containing SMA cellulose fibers are not intended for ingestion. Limestone dust is a physical irritant of the eyes, nose, mucus membranes, and skin of humans. Contact of limestone dust with the eyes causes redness, pain, and inflammation of the eyelids. Skin contact may result in dryness and moderate local irritation. Other symptoms include runny nose, sneezing, and coughing.

Delayed and Immediate Effects As Well as Chronic Effects from Short and Long-Term Exposure: No chronic or reproductive effects from cellulose have been reported in the literature.

Quartz (crystalline silica) contamination of limestone in excess of 2% may pose a risk for silicosis, a lung disease. Prolonged and repeated inhalation of respirable crystalline silica-containing dust in excess of appropriate exposure limits has been associated with silicosis. Symptoms of silicosis may include, but are not limited to, the following: shortness of breath; difficulty breathing with or without exertion; coughing; diminished work capacity; diminished chest expansion; reduction of lung volume; right heart enlargement and/or failure. Smoking may increase the risk of developing lung disorders, including emphysema and lung cancer. Not all individuals with silicosis will exhibit symptoms (signs) of the disease. However, silicosis can be progressive, and symptoms can appear at any time, even years after exposure has ceased. Persons with silicosis have an increased risk of pulmonary tuberculosis infection. Several studies of persons with silicosis also indicate an increased risk of developing lung cancer, a risk that increases with the duration of exposure. Some of these studies of silicotics do not account for lung cancer confounders, especially smoking.

CELLULOSE FIBER:

Acute Toxicity:

Method: Acute Oral Toxicity Study
Species: Rat
Dose: 5000 mg/kg body weight (bw)
Results: Low acute oral toxicity; the oral LD_{50} in rats is >5,000 mg/kg bw

Method: Acute Dermal Toxicity Study
Species: Rabbit
Dose: 2000 mg/kg bw
Results: Low acute dermal toxicity; LD_{50} in rabbits is > 2,000 mg/kg bw; poorly absorbed through intact skin

Method: Acute Inhalation Toxicity Study
Species: Rat
Dose: 5.8 mg/L
Results: Low acute inhalation toxicity; LC_{50} in rats is > 5.8 mg/L (or g/m^3)

Skin Corrosion / Irritation:
Method: Dermal Irritation Study
Species: NA
Dose: NA
Results: Nonirritating

Serious Eye Damage / Irritation:
No information found.

Respiratory or Skin Sensitization:
Method: Skin or respiratory sensitization
Species: NA
Dose: NA
Results: Nonsensitizing

Germ Cell Mutagenicity:
No information found.

Carcinogenicity:
Cellulose is not listed as a known or suspected carcinogen by OSHA, ACGHI, NTP, or IARC.

Reproductive Toxicity:
No reproductive effects from cellulose were found in the literature.

LIMESTONE:
Acute Toxicity (Limestone):
Method: Acute Oral Toxicity Study
Species: Rat
Dose: NA
Results: Low acute oral toxicity. The oral LD_{50} in rats is 6,450 mg/kg bw

Method: Acute Dermal Toxicity Study
No information found.

Method: Acute Inhalation Toxicity Study
No information found.

Skin Corrosion / Irritation (based on precipitated calcium carbonate):
Method: Dermal Irritation Study (OECD Guideline 404)
Species: Rabbit
Dose: 0.5 g of test material moistened with 0.5 mL of distilled water

Results: No evidence of skin irritation or corrosive effects was noted during the study (all scores were 0).

Serious Eye Damage / Irritation (based on precipitated calcium carbonate):

Method: Ocular Irritation Study (OECD Guideline 405)
Species: Rabbit
Dose: 0.1 mL
Results: Minimal conjunctival irritation which returned to normal by 72 hours.

Respiratory or Skin Sensitization:

No information found.

Germ Cell Mutagenicity:

No information found.

Carcinogenicity:

Limestone is not listed as a known or suspected carcinogen by OSHA, NTP, or IARC. Respirable crystalline silica, a component of limestone, is classified as carcinogenic (Group 1) by IARC. NTP lists respirable crystalline silica as a "known human carcinogen." ACGIH lists respirable crystalline silica as a suspected human carcinogen (A-2). These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to crystalline silica.

Reproductive Toxicity:

Method: Oral Study
Species: Rat
Dose: 1.25% in feed (approximately 625 mg/kg bw per day)
Results: No adverse effects reported.

STOT-Single Exposure:

Method: Inhalation Study
Species: NA
Dose: NA
Results: Nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and/or asphyxiation.

STOT-Repeated Exposure:

Method: Inhalation Study
Species: NA
Dose: NA
Results: May cause damage to lungs through prolonged and repeated inhalation exposure.

Section 12 – Ecological Consideration:

Not listed as a known marine pollutant according to the IMDG Code. Not known as environmentally hazardous according to UN Model Regulations, ADR, RID, and ADN.

Cellulose fiber: No information found.
Limestone: The LC_{50} in *Gambusia affinis* (Western mosquitofish) is > 56,000 mg/L for 24 – 96 hrs under static conditions.

Section 13 - Waste Disposal:

Dispose in accordance with all applicable federal, state, and local environmental regulations. Dispose as a non-hazardous waste. Not considered hazardous per Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 261).

Section 14 – Transportation Information;

General: No special handling is required. Use good housekeeping to minimize dust levels below the exposure limits listed in Section 2.
In Case of Spill: Shovel or sweep up and place in container for disposal.
Environmental Hazards: None
Transportation: AFT SMA Fibers are not a DOT Hazardous Substance.

Section 15 – Regulatory Information

Superfund – CERCLA/SARA. This product is not listed under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) or its 1986 amendments, the Superfund Amendments and Reauthorization Act (SARA), including substances listed under Section 313 of SARA, Toxic Chemicals, 42 USC 11023, 40 CFR 372.65; Section 302 of SARA Extremely Hazardous Substances, 42 USC 110002, 40 CFR 355; or the CERCLA Hazardous Substances list, 42 USC 9604, 40 CFR 302.
RCRA: This product is not listed as a hazardous waste under any sections of the Resource Conservation and Recovery Act or regulations (40 CFR 261 et seq.)
EPCRA: Limestone is considered a hazardous chemical and a delayed health hazard by the EPA.
TSCA No: This product does not appear on the EPA TSCA inventory list.
IARC: The International Agency for Research on Cancer lists silica dust as a Group 1 carcinogen.
NTP Annual Report on Carcinogens: Crystalline silica dust is listed as known human carcinogen.
Safe Drinking Water Act: This product is not regulated under the SDWA, 42 USC 300g-1, 40 CFR141 et seq.
HMIS Hazard Class: Health:1 Flammability:1 Reactivity:1 Protection:E

Section 16 – Other Information

Disclaimer / Statement of Liability: The information presented has been compiled from sources considered to be dependable and is reliable to the best of our knowledge but is not guaranteed to be so. This Safety Data Sheet is offered solely for your information, considerations, and investigations. This SDS is not to be construed as recommending any practice or product in violation of any law or regulation. The user is responsible to determine the suitability of the material for a specific purpose and adopt necessary safety precautions.

This product is not intended to be used as a food source, component, or ingredient. It is not produced in compliance with federal or state regulations governing products consumed or intended for consumption by humans or animals and should not be used for such purposes.

This SDS was finalized on June 1, 2015 and is compliant with OSHA HCS/HazCom 2012 Final Rule. This replaces the previous dated versions.