

SAFETY DATA SHEET

1. Product and Company Identification

Material name F-46 FIBER
Version # 00
Issue date 19-August-2013
Revision date 19-August-2013
Supersedes date -
Chemical description Mineral Filler
CAS # 1344-28-1
Product code 802-0020
Product use PTFE Fiber.
Manufacturer information
Manufacturer/Supplier Team Industrial Services, Inc.
Address 200 Hermann Drive, Alvin, Texas 77511, US
Emergency telephone number CHEMTREC - 24 HOURS
 USA: CHEMTREC: 800-424-9300
 International: 703-527-3887 (Collect)

2. Hazards Identification

Physical state Solid.
Appearance White powder or granules.
Emergency overview CAUTION
 Dust may irritate the respiratory tract, skin and eyes.
OSHA regulatory status This product is hazardous according to OSHA 29 CFR 1910.1200.
Potential health effects
Routes of exposure Eye contact. Skin contact. Ingestion. Inhalation.
Eyes Dust may irritate the eyes.
Skin Dust may irritate skin.
Inhalation Dust may irritate throat and respiratory system and cause coughing.
Ingestion May cause discomfort if swallowed.
Target organs Eyes. Skin. Respiratory system.
Chronic effects Prolonged and repeated overexposure to dust can lead to pneumoconiosis.
Signs and symptoms Direct contact with eyes may cause temporary irritation.
Potential environmental effects The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Aluminum oxide	1344-28-1	>99

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures
Eye contact Do not rub eyes. Flush eyes thoroughly with water for at least 15 minutes. Get medical attention if irritation develops or persists.
Skin contact Wash area with soap and water. Get medical attention if irritation develops or persists.
Inhalation Remove victim to fresh air. Get medical attention if symptoms persist.

Ingestion	Rinse mouth and drink plenty of water. Only induce vomiting at the instruction of medical personnel. Get medical attention if any discomfort occurs.
Notes to physician	Treat symptomatically.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	No unusual fire or explosion hazards noted.
Extinguishing media	
Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	No restrictions known.
Protection of firefighters	
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Protective equipment and precautions for firefighters	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use standard firefighting procedures and consider the hazards of other involved materials. Cool material exposed to heat with water spray and remove it if no risk is involved.
Hazardous combustion products	None.

6. Accidental Release Measures

Personal precautions	Avoid inhalation of dust and contact with skin and eyes. Avoid prolonged and repeated contact. See Section 8 of the MSDS for Personal Protective Equipment.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
Methods for containment	Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Collect and dispose of spillage as indicated in Section 13 of the MSDS.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Avoid inhalation of dust and contact with skin and eyes. Use work methods which minimize dust production. Provide adequate ventilation. Observe good industrial hygiene practices.
Storage	Store in closed original container in a dry place. Keep away from incompatible material.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m ³	Respirable fraction.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Aluminum oxide (CAS 1344-28-1)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Aluminum oxide (CAS 1344-28-1)	TWA	10 mg/m ³

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m3	Respirable.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Aluminum oxide (CAS 1344-28-1)	TWA	10 mg/m3	Total dust.

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Aluminum oxide (CAS 1344-28-1)	TWA	10 mg/m3

Engineering controls	Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of dust.
Personal protective equipment	
Eye / face protection	Risk of contact: Wear approved safety glasses or goggles.
Skin protection	Where skin contact is likely, wear chemical impervious gloves. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.
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.

9. Physical & Chemical Properties

Appearance	White powder or granules.
Physical state	Solid.
Form	Powder, Granules, Balls.
Color	White. Odor Odorless.
Odor threshold	Not available.
pH	9 - 10.5
Vapor pressure	Not available. Vapor
density	Not available.
Boiling point	Not determined.
Melting point/Freezing point	3727.4 °F (2053 °C)
Solubility (water)	Insoluble.
Specific gravity	Not available.
Flash point	Not Applicable.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.

Auto-ignition temperature	Does not ignite.
Bulk density	800 - 2800 kg/m ³
Other data	
Density	3.50 - 3.70 g/cm ³

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions. Conditions to avoid
Incompatible materials	Moisture. Contact with incompatible materials.
Hazardous decomposition products	Strong acids. Strong oxidizing agents. Chlorine trifluoride.
Possibility of hazardous reactions	No hazardous decomposition products are known.
	Hazardous polymerization does not occur. Hazardous reactions do not occur.

11. Toxicological Information

Sensitization	Not a skin sensitizer.
Acute effects	May cause discomfort if swallowed.
Local effects	Dusts may irritate the respiratory tract, skin and eyes.
Chronic effects	Prolonged and repeated overexposure to coal dust can lead to pneumoconiosis (Black lungs).
Carcinogenicity	Not classified.
ACGIH Carcinogens	
Aluminum oxide (CAS 1344-28-1)	A4 Not classifiable as a human carcinogen.
Mutagenicity	None known.
Reproductive effects	None known.
Symptoms and target organs	Direct contact with eyes may cause temporary irritation.

12. Ecological Information

Ecotoxicity	The product is not expected to be hazardous to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	No data available.
Bioaccumulation / Accumulation	No data available.
Partition coefficient	No data available.
Mobility in environmental media	No data available.

13. Disposal Considerations

Waste codes	Not regulated.
Disposal instructions	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Recover and reclaim or recycle, if practical.
Contaminated packaging	Dispose product packaging in accordance with local authority requirements taking into account characteristics of the packaging material.

14. Transport Information

DOT	Not regulated as a hazardous material by DOT.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
TDG	Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is hazardous according to OSHA 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Aluminum oxide (CAS 1344-28-1) 1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Aluminum oxide (CAS 1344-28-1) Listed.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A) No

SARA 311/312 Hazardous chemical Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15) Not controlled

Canadian regulations This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS status Non-controlled

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Aluminum oxide (CAS 1344-28-1) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - New Jersey RTK - Substances: Listed substance

Aluminum oxide (CAS 1344-28-1) Listed.

US. Massachusetts RTK - Substance List

Aluminum oxide (CAS 1344-28-1) Listed.

US. New Jersey Worker and Community Right-to-Know Act

Aluminum oxide (CAS 1344-28-1) 500 lbs

US. Pennsylvania RTK - Hazardous Substances

Aluminum oxide (CAS 1344-28-1) Listed.

16. Other Information

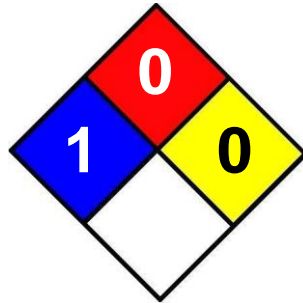
Further information

HMIS® is a registered trade and service mark of the NPCA.
I - Safety Glasses, Gloves, Dust, Vapor Respirator

HMIS® ratings

Health: 1*
Flammability: 0
Physical hazard: 0
Personal protection: I

NFPA Ratings



Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.