

Material Safety Data Sheet

Product Name: HiTemp™ FILLER COMPOUND

*** Section 1 - Chemical Product and Company Identification ***

Chemical Formula: Mixture

Product Use: Exclude moisture and enhance mechanical holding strength

Other Designations: AFL Conductor Accessories' HiTemp Filler Compound, AFL Filler Compound High Temperature, AFCHT, 50% NOVAGARD and 50% Tabular Alumina

Manufacturer/Supplier

AFL Telecommunications
170 Ridgeview Circle
Duncan, SC 29334

Phone: 1-864-433-0333

Health & Safety information: 1-864-433-5577

Emergency Information: 1-864-433-5577

Website: www.afttele.com

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Percent
1344-28-1	Tabular alumina (non-fibrous)	50
Not Available	Methylphenylpolysiloxanes	35-45
112945-52-5	Silica, amorphous	5-15

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Silicon dioxide (amorphous) (69012-64-2).

*** Section 3 - Hazards Identification ***

Emergency Overview

Paste with grit. Milky white. Odorless. Material will burn if ignited. Can cause irritation of eyes. Prolonged or repeated contact can cause mild irritation of skin. If material is overheated (>300F), vapors can cause irritation of respiratory tract.

Potential Health Effects

Eyes

Can cause irritation.

Skin

Prolonged or repeated contact can cause mild irritation.

Ingestion

Can cause irritation.

Inhalation

Vapors produced from overheated material can cause irritation.

Health Effects of Ingredients

Silica, amorphous Acute overexposures: Can cause dryness of eyes, nose and upper respiratory tract.

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Alumina (aluminum oxide) Low health risk by inhalation. Generally considered to be biologically inert.

Medical Conditions Aggravated By Exposure to the Product

Skin rashes, and, if material is overheated, asthma and chronic lung disease.

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Flush eyes with plenty of water or saline. Consult a physician, if irritation persists.

First Aid: Skin

Wash skin with soap and water. Consult a physician if irritation persists.

First Aid: Ingestion

If swallowed, dilute by drinking large amounts of water. *Never give anything by mouth to a convulsing or unconscious person.* Do **not** induce vomiting. Consult a physician.

First Aid: Inhalation

Remove to fresh air. If unconscious or severely injured, check for clear airway, breathing and presence of pulse. Perform CPR if there is no pulse or respiration. Consult a physician.

*** Section 5 - Fire Fighting Measures ***

Flash Point: >500°F (260°C) Methylphenylpolysiloxanes

Fire/Explosion

Not an explosion hazard. While not considered "flammable" or "combustible" as defined by OSHA or DOT, the material will burn if ignited.

Extinguishing Media

Use dry chemical, water spray (fog), foam or carbon dioxide extinguishing agents. Use water spray to minimize vapors and cool containers exposed to heat or flame. Move undamaged containers away from heat or flame, if possible.

Fire Fighting Equipment/Instructions

Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

*** Section 6 - Accidental Release Measures ***

Small/Large Spill

Recover spills for reuse. Absorb remainder with absorbent material. Spills may be slippery and potentially hazardous to personnel or mobile equipment due to reduced traction.

*** Section 7 - Handling and Storage ***

Handling/Storage

Avoid eye and skin contact. Avoid generating mists or vapors. Spills may be slippery and potentially hazardous to personnel or mobile equipment due to reduced traction.

Keep containers closed when not in use. Store away from heat, sparks, flames, oxidizers, and other incompatible substances. Empty containers may contain residual product. Do not cut or weld on containers.

*** Section 8 - Exposure Controls / Personal Protection ***

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Engineering Controls

Use with adequate ventilation to meet the limits listed in Section 8, Exposure Guidelines.

Personal Protective Equipment

Respiratory Protection

Use NIOSH-approved respiratory protection as specified by an Industrial Hygienist or other qualified professional if concentrations exceed the limits listed in Section 8, Exposure Guidelines. Suggested respiratory protection: N-95. Formaldehyde cartridges on facepiece with suitable protection factor for vapors generated by overheating.

Eye Protection

Wear safety glasses/goggles to avoid eye contact.

Skin Protection

Wear impervious gloves to avoid direct skin contact.

Exposure Guidelines

A: General Product Information

No information available for product. See below for component guidelines.

B: Component Exposure Limits

Tabular alumina (non-fibrous) (1344-28-1)

ACGIH 10 mg/m³ TWA (particulate matter containing no asbestos and < 1% crystalline silica)

OSHA 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

Silica, amorphous (112945-52-5)

ACGIH 2 mg/m³ TWA (respirable fraction) (related to Silica fume)

*** Section 9 - Physical & Chemical Properties ***

Physical State: Paste with grit

Boiling Point: Not applicable

Vapor Pressure: Not applicable

Solubility in Water: Negligible

Density: ~2.3 g/cm³ (~0.083 lb/in³)

Odor: Odorless

Octanol-Water Coefficient: Not determined

Appearance: Milky white

Melting Point: Not applicable

Vapor Density: Not applicable

Specific Gravity: See Density

pH Level: Not applicable

Odor Threshold: Not applicable

*** Section 10 - Chemical Stability & Reactivity Information ***

Stability

Stable under normal conditions of use, storage, and transportation.

Conditions to Avoid

Methylphenylpolysiloxanes can generate formaldehyde when heated to >300°F (>149°C).

Hazardous Decomposition

Carbon monoxide, carbon dioxide, silicon dioxide and formaldehyde.

Hazardous Polymerization

Will not occur.

*** Section 11 - Toxicological Information ***

Health Effects of Ingredients

A: General Product Information

No information available for product mixture. See sections 3 and 8 for component hazards.

B: Component Analysis - LD50/LC50

Silica, amorphous (112945-52-5)

Oral LD50 Rat: 3160 mg/kg

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Carcinogenicity

A: General Product Information

No information available for product mixture. See below for component characterization.

B: Component Carcinogenicity

Tabular alumina (non-fibrous) (1344-28-1)

ACGIH A4 - Not Classifiable as a Human Carcinogen

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

No information available for product mixture. See below for component information.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data was found for this product's components.

Environmental Fate

No information available for product mixture.

* * * Section 13 - Disposal Considerations * * *

Disposal Instructions

Reuse or recycle material whenever possible. Material may be disposed of at an industrial landfill.

US EPA Waste Number & Descriptions

A: General Product Information

Not federally regulated in the U.S. if disposed of "as is." Otherwise, characterize in accordance with applicable regulations (40 CFR 261 or state equivalent in the U.S.)

B: Component Waste Numbers

RCRA waste codes other than described under Section A may apply depending on use of product. Refer to 40 CFR 261 or state equivalent in the U.S.

* * * Section 14 - Transportation Information * * *

Special Transportation

	PSN #1	PSN #2	PSN #3	PSN #4
Notes:	(1)			
Proper Shipping Name:	Not regulated			
Hazard Class:	-			
UN NA Number:	-			
Packing Group:	-			
RQ:	-			
Other - Tech Name:	-			
Other - Marine Pollutant:	-			

Notes:

(1) When "Not regulated," enter the proper freight classification, "MSDS Number," and "Product Name" on the shipping paperwork.

Canadian TDG Hazard Class & PIN:	Not regulated
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*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

In reference to Title VI of the Clean Air Act of 1990, this material does not contain nor was it manufactured using ozone-depleting chemicals.

B: Component Analysis

None of the components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

SARA 311/312 Physical and Health Hazard Categories:

Immediate (acute) Health Hazard: No

Delayed (chronic) Health Hazard: No

Fire Hazard: No

Sudden Release of Pressure: No

Reactive: No

State Regulations

A: General Product Information

No information available for product.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Tabular alumina (non-fibrous)	1344-28-1	No	No	Yes	Yes	Yes	Yes
Silica, amorphous (¹ related to Silica fume (amorphous))	112945-52-5	No	No	Yes ¹	Yes ¹	No	No

Other Regulations

A: General Product Information

No information available for product.

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Tabular alumina (non-fibrous)	1344-28-1	1 % (English Item 44, French Item 195)

C: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS	AUST.	MITI
Tabular alumina (non-fibrous)	1344-28-1	Yes	Yes	Yes	Yes	Yes
Methylphenylpolysiloxanes	Not Available	Yes	Yes	No	Yes	No
Silica, amorphous	112945-52-5	No	Yes	No	Yes	No

For TSCA Inventory purposes, Silica, amorphous (CAS# 112945-52-5) is covered by CAS# 69012-64-2 and is listed on the TSCA Inventory.

*** Section 16 - Other Information ***

MSDS History

Original: June 24, 2004

MSDS Status

New MSDS

Revised: May 2, 2008; May 6, 2009, changes to sections 8 and 11.

Prepared By

Hazardous Materials Control Committee

Preparer: Jon N. Peace, 412-553-2293

Revised by: Gerald Beaumont, 864-987-0800

MSDS System Number

168819Other Information

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- * Guide to Occupational Exposure Values-2003, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).
- * Documentation of the Threshold Limit Values and Biological Exposure Indices, Sixth Edition, 1991, Compiled by the American Conference of Governmental Industrial Hygienists, Inc. (ACGIH).
- * NIOSH Pocket Guide to Chemical Hazards, U.S. Department of Health and Human Services, June 1994.
- * Dangerous Properties of Industrial Materials, Sax, N. Irving, Van Nostrand Reinhold Co., Inc., 1984.
- * Patty's Industrial Hygiene and Toxicology: Volume II: Toxicology, 4th ed., 1994, Patty, F. A.; edited by Clayton, G. D. and Clayton, F. E.: New York: John Wiley & Sons, Inc.
- * Integrated Index(R), MICROMEDEX, Inc., 2004

Key-Legend:

ACGIH	American Conference of Governmental Industrial Hygienists
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CPR	Cardio-pulmonary Resuscitation
DOT	Department of Transportation
DSL	Domestic Substances List (Canada)
EC	Effective Concentration
ED	Effective Dose
EINECS	European Inventory of Existing Commercial Chemical Substances
EPA	Environmental Protection Act
IARC	International Agency for Research on Cancer
LC ₅₀	Lethal concentration (50 percent kill)
LC _{Lo}	Lowest published lethal concentration
LD ₅₀	Lethal dose (50 percent kill)
LD _{Lo}	Lowest published lethal dose
LFL	Lower Flammable Limit
MITI	Ministry of International Trade & Industry
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PIN	Product Identification Number
PSN	Proper Shipping Name
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
STEL	Short Term Exposure Limit
TCLP	Toxic Chemicals Leachate Program
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time Weighted Average
UFL	Upper Flammable Limit
WHMIS	Workplace Hazardous Materials Information System
atm	atmosphere
cm	centimeter
g, gm	gram
in	inch
kg	kilogram
lb	pound
m	meter
mg	milligram
ml, ML	milliliter
mm	millimeter
mppcf	million particles per cubic foot
n.o.s.	not otherwise specified
ppb	parts per billion
ppm	parts per million
psia	pounds per square inch absolute
u	micron
ug	microgram

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INFORMATION HEREIN IS GIVEN IN GOOD FAITH AS AUTHORITATIVE AND VALID; HOWEVER, NO WARRANTY, EXPRESS OR IMPLIED, CAN BE MADE.

This is the end of MSDS # 1306