

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: FlameSafe® FS 3000 Series Firestop Coating
MSDS ID Number: Z-01511

MSDS Date: 01/12/2001

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: FlameSafe® FS 3000 Series Firestop Coating
MSDS Number: Z-01511
Cancelled MSDS Number: New
MSDS Date: 01/12/2001
Chemical Family Name: Filled Vinyl & Acrylic Emulsion
Product Use: Intumescent, Elastomeric Firestop
Chemical Formula: Mixture-NA
CAS # (Chemical Abstracts Service Number): Mixture-NA

Manufactured by:

W.R.Grace & Co.-Conn.
62 Whittemore Avenue
Cambridge, MA 02140

Grace Canada, Inc.
294 Clements Road West
Ajax, Ontario L1S 3C6

In Case of Emergency Call:

In USA: (617) 876-1400 In Canada: (905) 683-8561

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS#	Percent (max)
2-Propenoic acid, polymer...	052640-81-0	10-20
Aluminum oxide	001344-28-1	5-10
Calcium carbonate	001317-65-3	10-20
Ethylene Glycol	000107-21-1	< 1
Methenamine	000100-97-0	< 1
Phenol, isopropylated, phosphate (3:1)	068937-41-7	1-5
Phenol-formaldehyde polymer	009003-35-4	5-10
Polyvinyl Acetate Emulsion	NJ801415075P	10-20
Quartz	014808-60-7	< 1
Triphenyl phosphate	000115-86-6	1-5

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SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Warning!

Causes eye irritation.
Causes skin irritation.
Causes respiratory tract irritation.
May be harmful if ingested.
Harmful if absorbed through skin.

HMIS Rating:

Health:	2*
Flammability:	0
Reactivity:	0
Personal Protective Equipment:	B (See Section 8)

Potential Health Effects:

Inhalation:

Spray applications of this material may create aerosols which may be irritating to the upper respiratory tract, nose, and throat.
Prolonged inhalation may cause sensitization.
Effects include: Nausea, sneezing, coughing, tightness of chest, hypersensitive individuals may experience allergic respiratory reaction and wheezing.

Eye Contact:

Spray applications of this material may create aerosols which may be irritating to the eyes.
Prolonged eye contact can result in permanent damage.

Skin Contact:

Skin contact causes irritation.
Prolonged skin contact can result in burns.
Hypersensitive individuals may develop an allergic reaction resulting in dermatitis, rash or hives.

Skin Absorption:

Harmful if absorbed through the skin.

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Ingestion:

Harmful if ingested.

Effects include the following: No other effects expected unless listed below.

May be irritating if ingested. Reproductive and developmental effects have been reported for certain ingredients. Long-term repeated ingestion of small amounts of product may cause a decrease in red blood cells or liver and kidney damage. Ethylene glycol has been shown to produce teratogenic and developmental toxic effects in laboratory animals.

Phenol-formaldehyde polymer has tested positive as a mutagen.

SECTION 4 - FIRST AID MEASURES:

Skin Contact:

Call a physician.

Wash with soap and water.

Remove contaminated clothing and wash before reuse.

Eye Contact:

If discomfort or irritation persists, consult a physician.

Flush eyes with water for at least 15 minutes while holding eyelids open.

Ingestion:

If discomfort or irritation persists, consult a physician.

Never give anything by mouth to an unconscious person.

Do not induce vomiting.

Inhalation:

If symptoms develop, get fresh air. If symptoms persist, consult a physician.

If breathing has stopped, give artificial respiration then oxygen if needed.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

Flash Point: >212°F/100°C

Flash Point Method: Estimated

Lower Explosion Limit: Not Available

Upper Explosion Limit: Not Available

Auto-Ignition Temperature: Not Available

NFPA Rating:

Health: 1

Flammability: 0

Reactivity: 0

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Extinguishing Media: In case of fire, use water spray, dry chemical, Carbon dioxide or alcohol foam.

Special Fire Fighting Procedures:

Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to vapors or products of combustion exist. Isolate area and keep unnecessary people away.

No special procedures specific to this product.

Unusual Fire and Explosion Hazards:

During fire, oxides of nitrogen may be evolved.

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

Spills/Leaks:

Prevent spills from entering drinking water supplies, streams, or sewers.

Collect material with an inert, noncombustible material and remove for disposal.

SECTION 7 - HANDLING AND STORAGE

Precautionary Measures:

Avoid contact with eyes, skin and clothing.

Do not take internally.

Practice good personal hygiene to avoid ingestion.

Use only with adequate ventilation.

Wash clothing before reuse.

FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

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SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

EXPOSURE GUIDELINES (US)

Ingredient	ACGIH TLV			OSHA PEL			Other
	TWA	STEL	Ceiling	TWA	STEL	Ceiling	
2-Propenoic acid, polymer...	-	-	-	-	-	-	-
Aluminum oxide	10 mg/m ³ TWA (as Al) (The value is for total dust containing no asbestos and <	-	-	total dust: 10 mg/m ³ TWA; respirable fraction: 5 mg/m ³ TWA	-	-	-
Ammonia	25 ppm TWA	35 ppm STEL	-	-	35 ppm STEL; 27 mg/m ³ STEL	-	-
Calcium carbonate	10 mg/m ³ TWA (The value is for particulate matter containing no asbestos and	-	-	total dust: 15 mg/m ³ TWA; respirable fraction: 5 mg/m ³ TWA	-	-	-
Ethylene Glycol	-	-	C 100 mg/m ³ (aerosol)	-	-	-	-
Methenamine	-	-	-	-	-	-	-
Phenol, isopropylated, phosphate (3:1)	-	-	-	-	-	-	-
Phenol-formaldehyde polymer	-	-	-	-	-	-	-
Polyvinyl Acetate Emulsion	-	-	-	-	-	-	-
Quartz	0.05 mg/m ³ TWA (this TLV is for the respirable fraction of dust)	-	-	respirable dust: 0.1 mg/m ³ TWA	-	-	-
Titanium dioxide	10 mg/m ³ TWA	-	-	total dust: 10 mg/m ³ TWA	-	-	-
Triphenyl phosphate	3 mg/m ³ TWA	-	-	3 mg/m ³ TWA	-	-	-

*Contains formaldehyde below 0.1% threshold. Product is capable of releasing formaldehyde under certain conditions. Exposure during typical application is expected to be insignificant. Exposure to formaldehyde vapor is a potential concern if product is applied under confined space conditions. Consult appropriate exposure guidelines for formaldehyde. (OSHA: 0.75 ppm-TWA, 2.0 ppm - STEL, ACGIH 0.3 ppm Ceiling)

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EXPOSURE GUIDELINES (CANADA)

Employers should consult provincial regulatory limits for exposure guidelines which may vary locally.

Engineering Controls: Not generally required.

Personal Protective Equipment:

Respiratory Protection: Respiratory protection is required during spray application. A dust/mist respirator such as a 3M Type P-95 or 3M Type 3-95 with organic vapor protection (or equivalent) is adequate. Specific working conditions, which must be assessed periodically, may require an increased level of respiratory protection. A respirator equipped with organic vapor cartridges may be required indoors and in other poorly ventilated areas. Respirators may not be required during non-spray applications and other specific situations. In all cases, maintain exposures below governmental limits specified in Section 2. (See Work/Hygenic Practices for additional information.) A NIOSH approved respirator for Formaldehyde vapor is required whenever exposures exceed regulatory limits. For additional information, refer to US OSHA Regulations 29 CFR 1910.§ 134.

Skin Protection: Impervious (PVC, latex or nitrile) gloves should be worn anytime direct contact is possible.

Eye Protection: Wear goggles to prevent exposure to high vapor or mist concentrations. Wear goggles or safety glasses with side shields and a full-face shield to prevent contact due to splashing.

Work/Hygenic Practices: Work clothing with long sleeves/long pants and work boots must be worn. Clothing must be laundered before reuse. Disposable tyvek suits may be used during spray applications.
None beyond those noted above.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance/Odor:	Red Mastic. Mild latex odor.
Odor Threshold: (ppm)	Not Determined
pH:	Not Applicable
Vapor Pressure: (Mm Hg)	Unknown
Vapor Density: (Air = 1)	>1
Solubility In Water:	Appreciable
Specific Gravity: (Water = 1)	Not Available
Evaporation Rate: (Butyl Acetate = 1)	1
Boiling Point:	>212°F/100°C
Viscosity:	Unknown
Bulk Density: (Pounds/Cubic Foot)(Pcf)	Not Applicable
% Volatiles (gr/L): (70°F) (21°C)	<250 g/l

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions To Avoid:	Strong oxidizers, Strong acids, Ammonium salts, flourine, maganese trioxide, oxygen diflouride and chlorine trifluoride.
Hazardous Polymerization:	Will not polymerize.
Hazardous Decomposition Products:	Carbon dioxide, Carbon monoxide, Low molecular weight hydrocarbons, Aldehydes, magnesium carbonate and lime.

SECTION 11 - TOXICOLOGICAL INFORMATION

<u>Ingredient(No data unless listed.)</u>	<u>CAS Number</u>	<u>LD50 and LC50</u>
Triphenyl phosphate	000115-86-6	Oral LD50 Rat : 3500 mg/kg; Oral LD50 Mouse : 1320 mg/kg

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Carcinogenicity:

Ingredient	IARC Group 1	IARC Group 2A	IARC Group 2B	NTP Known	NTP Suspect	OSHA
2-Propenoic acid, polymer...	No	No	No	No	No	No
Aluminum oxide	No	No	No	No	No	No
Calcium carbonate	No	No	No	No	No	No
Magnesium Aluminum Silicate	No	No	Yes	No	No	No
Phenol, isopropylated, phosphate (3:1)	No	No	No	No	No	No
Phenol-formaldehyde polymer	No	No	No	No	No	No
Polyvinyl Acetate Emulsion	No	No	No	No	No	No
Quartz	Yes	No	No	Yes	Yes	Yes
Triphenyl phosphate	No	No	No	No	No	No

*Contains formaldehyde below 0.1% threshold. Product is capable of releasing formaldehyde under certain conditions. Exposures during typical applications are expected to be insignificant. Exposure to formaldehyde vapor is a potential concern if product is applied under confined space conditions. NTP: Suspect Carcinogen. IARC: Group 2A. OSHA: Potential.

Mutagenicity:

Phenol-formaldehyde polymer in this product has tested positive as a mutagen.

Teratogenicity:

Ethylene glycol contained in this product has been shown to produce teratogenic effects in laboratory animals.

Reproductive Toxicity:

No information available.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate:

No data available for product.

Ecotoxicity:

No data available for product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Procedures:

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing waste for disposal. According to EPA (40 CFR § 261), waste of this product is not defined as hazardous. Dispose of waste in accordance with all applicable regulations.

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SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name:	Not Applicable
UN/NA Number:	Not Applicable
Domestic Hazard Class:	Nonhazardous
Surface Freight Classification:	Not Applicable
Label/Placard Required:	Not Applicable

SECTION 15 - REGULATORY INFORMATION

REGULATORY CHEMICAL LISTS:

CERCLA (Comprehensive Response Compensation and Liability Act):
(None present unless listed below)

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>	<u>CERCLA RQ</u>
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SARA Title III (Superfund Amendments and Reauthorization Act)

SARA Section 312/Tier I & II Hazard Categories:

Health Immediate (acute)	Yes
Health Delayed (chronic)	Yes
Flammable	No
Reactive	No
Pressure	No

302 Reportable Ingredients (Identification Threshold 1%.):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>	<u>SARA 302 TPQ</u>
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313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Acetaldehyde	000075-07-0	.0014
Acrylamide	000079-06-1	.0008
Acrylonitrile	000107-13-1	.0002
Aluminum oxide	001344-28-1	6.7
Ammonia	007664-41-7	.12
Chlorothalonil	001897-45-6	.0404
Ethyl acrylate	000140-88-5	.0022
Ethylene Glycol	000107-21-1	.27
Formaldehyde	000050-00-0	.0321
Glycol ethers	RR-00067-9	.011
Methyl alcohol	000067-56-1	.0018
Vinyl acetate	000108-05-4	.0742

National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: (gr/L) <250 g/l

WHMIS Classification(s): D2 B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR). This MSDS contains all the information required by the CPR.

State Regulatory Information:

California Proposition 65:

WARNING! This product contains substances known to the state of California to cause cancer, birth defects or other reproductive harm.

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Massachusetts Hazardous Substance List(Identification threshold 0.001%(1ppm)):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Acetaldehyde	000075-07-0	.0014
Acrylamide	000079-06-1	.0008
Acrylonitrile	000107-13-1	.0002
Ammonia	007664-41-7	.12
Chlorothalonil	001897-45-6	.0404
Ethyl acrylate	000140-88-5	.0022
Formaldehyde	000050-00-0	.0321
Quartz	014808-60-7	.2675
Vinyl acetate	000108-05-4	.0742

New Jersey Hazardous Substance List(Identification threshold (0.1%)):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Aluminum oxide	001344-28-1	6.7
Ammonia	007664-41-7	.12
Ethylene Glycol	000107-21-1	.27

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Formaldehyde	000050-00-0	.032

CHEMICAL INVENTORY STATUS:

All chemicals in this product are listed or exempt from listing in the following countries:

US	CANADA		EUROPE	AUSTRALIA	JAPAN	KOREA	PHILIPPINES
TSCA	DSL	NDSL	EINECS/ELINCS	AICS	ENCS	ECL	PICCS
Yes	Yes	No	Not Determined	Not Determined	Not Determined	Not Determined	Not Determined

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SECTION 16 - OTHER INFORMATION

Non-Hazardous Ingredient Disclosure:

Chemical Name

Water

CAS Number

007732-18-5

Prepared by: EH&S Department
Approved by: EH&S Department
Approved Date: 09/12/2000

Disclaimer:

"The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection."

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