

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: FlameSafe® FS 1900 Series Firestop Sealant

MSDS ID Number: Z-01658

MSDS Date: 09/07/2006

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: FlameSafe® FS 1900 Series Firestop Sealant
MSDS Number: Z-01658
Cancelled MSDS Number: Z-01646
MSDS Date: 09/07/2006
Chemical Family Name: Polyvinyl Acetate & Acrylic Latex Based 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
Dipentaerythritol	000126-58-9	1-5
Graphite	007782-42-5	1-5
Melamine	000108-78-1	1-5
Methenamine	000100-97-0	< 1
Phenol, isopropylated, phosphate (3:1)	068937-41-7	5-10
Phenol-formaldehyde polymer	009003-35-4	1-5
Polyvinyl Acetate Emulsion	NJ801415075P	10-20
Pseudocumene	000095-63-6	< 1
Silicic acid, sodium salt	001344-09-8	5-10
Talc	014807-96-6	1-5
Triphenyl phosphate	000115-86-6	1-5
Zinc borate	001332-07-6	1-5

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Warning!

Causes mild to moderate eye irritation.
Causes respiratory tract irritation.
May be harmful if ingested.
Causes digestive tract irritation 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: Causes respiratory tract irritation.
Prolonged inhalation may cause sensitization.
Effects include: Nausea, sneezing, coughing, itching, tightness of chest and wheezing.
Hypersensitive individuals may experience allergic respiratory reaction.

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Eye Contact: Eye contact causes mild to moderate irritation.**Skin Contact:** Acute skin contact is not expected to cause irritation.

Hypersensitive individuals may develop an allergic reaction resulting in dermatitis, rash or hives.

Skin Absorption: Harmful if absorbed through the skin.**Ingestion:** Harmful if ingested.

If ingested, causes irritation to the linings of the mouth, esophagus and stomach.

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

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. Phenol-formaldehyde polymer has tested positive as a mutagen.

SECTION 4 - FIRST AID MEASURES:**Skin Contact:** Wash with soap and water.

If discomfort or irritation persists, consult a physician.

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**Extinguishing Media:** Product will not support combustion. Use alcohol foam, Carbon dioxide, dry chemical or water to treat surrounding fire.**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:** Use proper personal protective equipment. Do not flush to sewer or allow to enter waterways. Keep unnecessary people away.**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..	-	-	-	-	-	-	-
Dipentaerythritol	-	-	-	-	-	-	-
Graphite	2 mg/m3 TWA (respirable fraction) (all forms except graphite fibers)	-	-	respirable dust: 2.5 mg/m3 TWA	-	-	-
Melamine	-	-	-	-	-	-	-
Methenamine	-	-	-	-	-	-	-
Nitric acid	2 ppm TWA	4 ppm STEL	-	2 ppm TWA; 5 mg/m3 TWA	4 ppm STEL; 10 mg/m3 STEL	-	-
Phenol, isopropylated, phosphate (3:1)	-	-	-	-	-	-	-
Phenol-formaldehyde polymer	-	-	-	-	-	-	-
Polyvinyl Acetate Emulsion	-	-	-	-	-	-	-
Pseudocumene	-	-	-	-	-	-	-
Silicic acid, sodium salt	-	-	-	-	-	-	-
Sulfuric acid	1 mg/m3 TWA	3 mg/m3 STEL	-	1 mg/m3 TWA	-	-	-
Talc	2 mg/m3 TWA (this TLV is for the respirable fraction of dust for Talc)	-	-	respirable dust (less than 1% crystalline silica): 2 mg/m3 TWA (Listed under	-	-	-
Triphenyl phosphate	3 mg/m3 TWA	-	-	3 mg/m3 TWA	-	-	-
Zinc borate	-	-	-	-	-	-	-

*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)

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 not generally required. However, if exposure limits (Section 8) are exceeded or respiratory irritation develops due to inhalation, a NIOSH approved respirator is recommended.

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: Safety glasses or goggles should be worn.

Work/Hygienic Practices: Use good personal hygiene practices.

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 Available
Vapor Pressure: (Mm Hg)	Not Applicable
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)	10.86 g/l

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions To Avoid:	Oxidizing materials and Strong acids.
Hazardous Polymerization:	Will not polymerize.
Hazardous Decomposition Products:	Carbon dioxide, Carbon monoxide, Low molecular weight hydrocarbons and Aldehydes.

SECTION 11 - TOXICOLOGICAL INFORMATION

<u>Ingredient(No data unless listed.)</u>	<u>CAS Number</u>	<u>LD50 and LC50</u>
Melamine	000108-78-1	Inhalation LC50 Rat : 3248 mg/m3; Oral LD50 Rat : 3161 mg/kg;
Triphenyl phosphate	000115-86-6	Oral LD50 Rat : 3500 mg/kg; Oral LD50 Mouse : 1320 mg/kg;

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
Dipentaerythritol	No	No	No	No	No	No
Graphite	No	No	No	No	No	No
Melamine	No	No	No	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
Silicic acid, sodium salt	No	No	No	No	No	No
Sulfuric acid	Yes	No	No	No	No	Yes
Talc	No	No	No	No	No	No
Triphenyl phosphate	No	No	No	No	No	No
Zinc borate	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 1. OSHA: Potential.

Mutagenicity:	Phenol-formaldehyde polymer in this product has tested positive as a mutagen.
Teratogenicity:	No information available.
Reproductive Toxicity:	No information available.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate:	No data available for product.
Ecotoxicity:	No data available for product.

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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.

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>
Zinc borate	001332-07-6	3.9	1,000

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	.0015
Acrylamide	000079-06-1	.0009
Acrylonitrile	000107-13-1	.0003
Cumene	000098-82-8	.0201
Ethyl acrylate	000140-88-5	.0024
Ethylene Glycol	000107-21-1	.081
Formaldehyde	000050-00-0	.0363
Nitric acid	007697-37-2	.45
Pseudocumene	000095-63-6	.4288
Sulfuric acid	007664-93-9	.45
Vinyl acetate	000108-05-4	.0907
Xylenes (o-, m-, p- isomers)	001330-20-7	.0402
Zinc Compounds	RR-00578-7	3.9

National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: (gr/L) 10.86 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:

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California Proposition 65: WARNING! This product contains substances known to the state of California to cause cancer, birth defects or other reproductive harm.

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

Chemical Name	CAS #	Wt %
Acetaldehyde	000075-07-0	.0015
Acrylamide	000079-06-1	.0009
Acrylonitrile	000107-13-1	.0003
Ethyl acrylate	000140-88-5	.0024
Formaldehyde	000050-00-0	.0363
Nitric acid	007697-37-2	.45
Sulfuric acid	007664-93-9	.45
Vinyl acetate	000108-05-4	.0907

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

Chemical Name	CAS #	Wt %
Nitric acid	007697-37-2	.45
Pseudocumene	000095-63-6	.42
Sulfuric acid	007664-93-9	.45

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

Chemical Name	CAS #	Wt %
Formaldehyde	000050-00-0	.036

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

SECTION 16 - OTHER INFORMATION

Non-Hazardous Ingredient Disclosure:

Chemical Name	CAS Number
Water	007732-18-5

Prepared by: EH&S Department
Approved by: EH&S Department
Approved Date: 12/08/2005

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."