

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: FlameSafe® FS 900 Firestop Sealant

MSDS ID Number: Z-01660

MSDS Date: 09/18/2006

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: FlameSafe® FS 900 Firestop Sealant
MSDS Number: Z-01660
Cancelled MSDS Number: Z-01643
MSDS Date: 09/18/2006
Chemical Family Name: Polyvinyl Acetate & Acrylic Latex Based Emulsion
Product Use: Acrylic, Endothermic 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	10-25
Aluminum oxide	001344-28-1	10-25
Ashes, residues	068131-74-8	10-25
Methenamine	000100-97-0	< 1
Phenol-formaldehyde polymer	009003-35-4	1-10
Titanium dioxide	013463-67-7	1-10
Zinc borate	001332-07-6	1-10

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Warning!

Causes severe eye irritation.
Causes skin irritation.
Causes respiratory tract irritation.
May be harmful if ingested.
Causes digestive tract irritation if ingested.
Harmful if absorbed through skin.
May cause liver and kidney damage.

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, tightness of chest, hypersensitive individuals may experience allergic respiratory reaction and wheezing.
Eye Contact: Eye contact can cause severe irritation.
Prolonged eye contact can result in tissue damage.
Skin Contact: Skin contact causes irritation.
Prolonged skin contact can result in burns.
May cause sensitization.
Hypersensitive individuals may develop an allergic reaction resulting in dermatitis, rash or hives.

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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: 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.
Call a physician.
Remove contaminated clothing and wash before reuse.
Eye Contact: Flush eyes with water for at least 15 minutes while holding eyelids open.
Get immediate medical attention.
Ingestion: Do not induce vomiting.
Never give anything by mouth to an unconscious person.
If discomfort or irritation persists, consult a physician.
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.
Unusual Fire and Explosion Hazards: During fire, oxides of nitrogen may be evolved

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

Spills/Leaks: se 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.

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/m3 TWA (as Al) (The value is for total dust containing no	-	-	total dust: 10 mg/m3 TWA; respirable fraction: 5 mg/m3 TWA	-	-	-

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	asbestos and <						
Ashes, residues	-	-	-	-	-	-	-
Phenol-formaldehyde polymer	-	-	-	-	-	-	-
Titanium dioxide	10 mg/m3 TWA	-	-	-	total dust: 10 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)

Titanium dioxide can result in lung disease (lung cancer). However due to the physical nature of this product (liquid) exposures are not expected unless after product dries it is abraded and airborne dust is created.

EXPOSURE GUIDELINES (CANADA)

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

Engineering Controls: Not generally required.

Personal Protective Equipment:

Respiratory Protection: Respiratory protection is not normally required. Wear NIOSH approved dust mask if necessary to prevent exposures above the limits specified above.

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.

This product contains compounds subject to exposure guidelines and/or identified as carcinogens. (See Sections 8 and 11). However, due to the physical nature of this product, these compounds are unlikely to reach exposure limits unless airborne dust or spray mist is created.

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)	Unknown
Vapor Density: (Air = 1)	Greater than 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: (70°F) (21°C)	26%

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions To Avoid:	None known for this product.
Hazardous Polymerization:	Will not polymerize.
Hazardous Decomposition Products:	Carbon dioxide, Carbon monoxide and Low molecular weight hydrocarbons.

SECTION 11 - TOXICOLOGICAL INFORMATION

<u>Ingredient(No data unless listed.)</u>	<u>CAS Number</u>	<u>LD50 and LC50</u>
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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
Ashes, residues	No	No	No	No	No	No
Phenol-formaldehyde polymer	No	No	No	No	No	No
Titanium dioxide	No	No	Yes	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.

Titanium dioxide can result in lung disease (lung cancer). However due to the physical nature of this product (liquid) exposures are not expected unless after product dries it is abraded and airborne dust is created.

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

Teratogenicity: Not applicable.

Reproductive Toxicity: Borates have caused reproductive and developmental effects in animal studies.

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.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Not Applicable

UN/NA Number: Not Applicable

Domestic Hazard Class: Nonhazardous

Surface Freight Classification: Compound fireproofing or retardant, flame

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	4	final RQ = 1000 pounds (454 kg)

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>
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Acetaldehyde	000075-07-0	.0016935
Acrylamide	000079-06-1	.0010161
Acrylonitrile	000107-13-1	.0003387
Aluminum oxide	001344-28-1	15.8388
Ethyl acrylate	000140-88-5	.0027096
Formaldehyde	000050-00-0	.0211180747
Glycol ethers	RR-00067-9	.002
Vinyl acetate	000108-05-4	.00447
Zinc Compounds	RR-00578-7	4.0
Phenol	000108-95-2	.2988

National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: (gr/L) Not Applicable

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.

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

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Acetaldehyde	000075-07-0	.0016935
Acrylamide	000079-06-1	.0010161
Acrylonitrile	000107-13-1	.0003387
Ethyl acrylate	000140-88-5	.0027096
Formaldehyde	000050-00-0	.0211180747
Vinyl acetate	000108-05-4	.00447
Phenol	000108-95-2	.2988

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

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Aluminum oxide	001344-28-1	15.8388
Phenol	000108-95-2	.2988
Zinc Compounds	RR-00578-7	4

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Formaldehyde	000050-00-0	.0211180747

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	No	Yes	Not Determined	Not Determined	Not Determined	Not Determined	Not Determined

SECTION 16 - OTHER INFORMATION

Non-Hazardous Ingredient Disclosure:

<u>Chemical Name</u>	<u>CAS Number</u>
Water	007732-18-5

Prepared by: EH&S Department

Approved by: EH&S Department

Approved Date: 09/18/2006

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

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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."