

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: FlameSafe® FSP 1000/FSP 1077 Firestop Putty

MSDS ID Number: Z-01662

MSDS Date: 02/09/2004

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: FlameSafe® FSP 1000/FSP 1077 Firestop Putty

MSDS Number: Z-01662

Cancelled MSDS Number: Z-01601

MSDS Date: 02-09-2004

Chemical Family Name: Filled Polybutene

Product Use: Non-Hardening, Moldable 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) |
|--------------------------------------|-------------|----------------------|
| Aluminum oxide | 001344-28-1 | 10-20 |
| Carbon black. | 001333-86-4 | < 1 |
| Cellulose. | 009004-34-6 | 1-5 |
| Dipentaerythritol | 000126-58-9 | 5-10 |
| Formaldehyde-melamine polymer | 009003-08-1 | 5-10 |
| Polybutene | 009003-29-6 | 20-30 |
| Polyphosphoric acids, ammonium salts | 068333-79-9 | 10-20 |
| Silicic acid, sodium salt | 001344-09-8 | 5-10 |
| Titanium dioxide | 13463-67-7 | < 1 |

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Warning!

Causes severe eye irritation.

Causes skin irritation.

Causes respiratory tract irritation.

HMIS Rating:

Health: 2*

Flammability: 0

Reactivity: 0

Personal Protective Equipment: B (See Section 8)

Potential Health Effects:

Inhalation: Causes respiratory tract irritation.

Effects include: Sneezing, itching, burning, 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 irritation causing redness and itching.

May cause sensitization.

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

Skin Absorption: Not expected to be harmful if absorbed through the skin.

Ingestion: Oral toxicity is believed to be low.

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

May be irritating if ingested.

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SECTION 4 - FIRST AID MEASURES:**Skin Contact:** If discomfort or irritation persists, consult a physician.

Wash with soap and water.

Remove contaminated clothing and wash before reuse.

Eye Contact: Call 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.**Unusual Fire and Explosion Hazards:** Ammonia and phosphoric acid can be produced in fire situations.**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.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT**EXPOSURE GUIDELINES (US)**

| Ingredient | ACGIH TLV | | | OSHA PEL | | | Other |
|-------------------------------|---|------|---------|---|------|---------|-------|
| | TWA | STEL | Ceiling | TWA | STEL | Ceiling | |
| Aluminum oxide | 10 mg/m3 TWA (as Al) (The value is for total dust containing no asbestos and < | - | - | total dust: 10 mg/m3 TWA; respirable fraction: 5 mg/m3 TWA | - | - | - |
| Carbon black. | 3.5 mg/m3 TWA | - | - | 3.5 mg/m3 TWA | - | - | - |
| Cellulose. | 10 mg/m3 TWA | - | - | total dust: 15 mg/m3 TWA; respirable fraction: 5 mg/m3 TWA | - | - | - |
| Dipentaerythritol | - | - | - | - | - | - | - |
| Formaldehyde-melamine polymer | - | - | - | - | - | - | - |

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| | | | | | | | |
|--------------------------------------|--------------|---|---|--------------------------|---|---|---|
| Polybutene | - | - | - | - | - | - | - |
| Polyphosphoric acids, ammonium salts | - | - | - | - | - | - | - |
| Silicic acid, sodium salt | - | - | - | - | - | - | - |
| Titanium dioxide | 10 mg/m3 TWA | - | - | total dust: 10 mg/m3 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)

Titanium dioxide and Carbon black have been associated with 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 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.

Prevent direct skin contact.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|--|
| Physical State: | Liquid |
| Appearance/Odor: | Red putty like compound, slight rubber odor. |
| Odor Threshold: (ppm) | Not Determined |
| pH: | Not Available |
| Vapor Pressure: (Mm Hg) | Not Applicable |
| Vapor Density: (Air = 1) | Not Applicable |
| Solubility In Water: | Slight |
| Specific Gravity: (Water = 1) | ~1.1 |
| Evaporation Rate: (Butyl Acetate = 1) | Not Applicable |
| Boiling Point: | Not Applicable |
| Viscosity: | Unknown |
| Bulk Density: (Pounds/Cubic Foot)(Pcf) | Not Applicable |
| % Volatiles (gr/L): (70°F) (21°C) | Not Applicable |

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, Formaldehyde, Acids, Oxides of nitrogen and Ammonia. |

SECTION 11 - TOXICOLOGICAL INFORMATION

| <u>Ingredient(No data unless listed.)</u> | <u>CAS Number</u> | <u>LD50 and LC50</u> |
|--|--------------------------|--|
| Cellulose. | 009004-34-6 | Inhalation LC50 Rat : >5800 mg/m3/4H Oral LD50 Rat : >5 gm/kg |
| Formaldehyde-melamine polymer | 009003-08-1 | Oral LD50 Rat : >10 gm/kg; |

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Dermal LD50 Rabbit : >10 gm/kg

Carcinogenicity:

| Ingredient | IARC Group 1 | IARC Group 2A | IARC Group 2B | NTP Known | NTP Suspect | OSHA |
|--------------------------------------|-----------------|------------------|------------------|--------------|----------------|------|
| Aluminum oxide | No | No | No | No | No | No |
| Carbon black. | No | No | Yes | No | No | No |
| Cellulose. | No | No | No | No | No | No |
| Dipentaerythritol | No | No | No | No | No | No |
| Formaldehyde-melamine polymer | No | No | No | No | No | No |
| Polybutene | No | No | No | No | No | No |
| Polyphosphoric acids, ammonium salts | No | No | No | No | No | No |
| Silicic acid, sodium salt | No | No | No | No | No | No |
| Titanium dioxide | No | No | Yes | 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 and Carbon black have been associated with 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.

Carbon Black has been classified as possibly carcinogenic to humans. (IARC Group 2B). Review of studies concluded that findings are questionable due to study design and methodology. Furthermore, review of these studies indicates that work environment concentrations of carbon black were considerably greater than current occupational exposure standards. Carbon Black contains >0.1% of absorbed PAHs(polynuclear aromatic hydrocarbons). In the non-absorbed form PAHs have been found to be carcinogenic in animal studies. No effects have been observed in humans.

| | |
|-------------------------------|---------------------------|
| Mutagenicity: | No information available. |
| 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. |

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> |
|-----------------------------|---------------------|--------------------|-------------------------|

SARA Title III (Superfund Amendments and Reauthorization Act)

SARA Section 312/Tier I & II Hazard Categories:

| | |
|--------------------------|-----|
| Health Immediate (acute) | Yes |
|--------------------------|-----|

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| | |
|--------------------------|-----|
| 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> |
|----------------------|--------------|-------------|---------------------|
|----------------------|--------------|-------------|---------------------|

313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

| <u>Chemical Name</u> | <u>CAS #</u> | <u>Wt %</u> |
|----------------------|--------------|-------------|
| Aluminum oxide | 001344-28-1 | 13.44 |
| Formaldehyde | 000050-00-0 | .0602 |

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> |
|----------------------|--------------|-------------|
| Formaldehyde | 000050-00-0 | .0602 |

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

| <u>Chemical Name</u> | <u>CAS #</u> | <u>Wt %</u> |
|----------------------|--------------|-------------|
| Aluminum oxide | 001344-28-1 | 13. |

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

| <u>Chemical Name</u> | <u>CAS #</u> | <u>Wt %</u> |
|----------------------|--------------|-------------|
| Formaldehyde | 000050-00-0 | .060 |

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 | Yes |

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 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."