

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: FlameSafe® C700 Series Cable Spray

MSDS ID Number: Z-01677

MSDS Date: 02/17/2007

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: FlameSafe® C700, C705 & C755 Series Cable Spray
MSDS Number: Z-01677
Cancelled MSDS Number: Z-01661
MSDS Date: 02/16/2007
Chemical Family Name: Polyvinyl Acetate & Acrylic Latex Based Emulsion
Product Use: Fire Retardant Cable Coating
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	10-20
Frits, chemicals	065997-18-4	10-20
Glass Oxide, Chemical	065997-17-3	1-5
Magnesium Aluminum Silicate	012174-11-7	1-5
Mullite (Al ₆ O ₅ (SiO ₄) ₂)	001302-93-8	1-5
Quartz	014808-60-7	< 1
Vinyl Acetate Polymer	009003-20-7	1-5
Zinc borate	001332-07-6	5-10
Titanium dioxide	13463-67-7	< 1

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Warning!

Causes eye irritation.
Causes skin irritation.
Causes respiratory tract irritation.
Causes digestive tract irritation if ingested.

HMIS Rating:

Health: 2*
Flammability: 0
Reactivity: 0
Personal Protective Equipment: E

Potential Health Effects:

Inhalation: Spray applications of this material may create aerosols which may be irritating to the upper respiratory tract, nose, and throat.

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 tissue damage.

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Skin Contact: Skin contact causes irritation.
Prolonged skin contact can result in irritation causing redness and itching.
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: Ingestion not expected to be harmful.
If ingested, causes irritation to the linings of the mouth, esophagus and stomach.
Effects include the following: No other effects expected unless listed below.
May be irritating if ingested.

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: 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: 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/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	-	-	-
Frits, chemicals	-	-	-	-	-	-	-
Glass Oxide, Chemical	-	-	-	-	-	-	-
Magnesium Aluminum Silicate	-	-	-	-	-	-	-
Mullite (Al6O5(SiO4)2)	-	-	-	-	-	-	-
Quartz	0.05 mg/m3 TWA (this TLV is for the respirable fraction of dust)	-	-	respirable dust: 0.1 mg/m3 TWA	-	-	-
Titanium dioxide	10 mg/m3 TWA	-	-	total dust: 10 mg/m3 TWA	-	-	-
Vinyl Acetate Polymer	-	-	-	-	-	-	-
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) Respirable Quartz (Crystalline silica) and Titanium dioxide can result in lung disease (i.e. silicosis and or 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 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.

Quartz (Crystalline silica) is a naturally occurring mineral that is contained in the materials that are mined from the earth's surface such as sand, limestone, clay and gypsum (calcium sulfate). Total quartz is a value usually representing the combined fraction of large non-respirable sized particles and of resprable sized particles (less than ten micros in acrodynamic diameter). It is only the respirable sized fraction of total quartz that is recognized as hazardous by professionals in the field of Occupational Health and by most regulatory agencies.

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This product contains compounds subject to exposure guidelines and/or identified as carcinogens (See section 8 and 11).

Due to the physical nature of this product, (liquid) these compounds are unlikely to reach exposure limits unless after product dries, it is abraded and airborne dust is created.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance/Odor:	White Mastic. Mild latex odor.
Odor Threshold: (ppm)	Not Determined
pH:	8-10
Vapor Pressure: (Mm Hg)	Not Applicable
Vapor Density: (Air = 1)	.1
Solubility In Water:	Complete
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)	6.0 g/l

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 and Carbon monoxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

Ingredient(No data unless listed.) **CAS Number** **LD50 and LC50**

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
Frits, chemicals	No	No	No	No	No	No
Glass Oxide, Chemical	No	No	No	No	No	No
Magnesium Aluminum Silicate	No	No	Yes	No	No	No
Mullite (Al6O5(SiO4)2)	No	No	No	No	No	No
Quartz	Yes	No	No	Yes	Yes	Yes
Vinyl Acetate Polymer	No	No	No	No	No	No
Zinc borate	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.

Respirable Quartz (Crystalline silica) and Titanium dioxide can result in lung disease (i.e. silicosis and or 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:	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.

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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	5.2	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	.0013
Acrylamide	000079-06-1	.0008
Acrylonitrile	000107-13-1	.0002
Aluminum oxide	001344-28-1	17.39
Ammonia	007664-41-7	.003
Ethyl acrylate	000140-88-5	.0021
Formaldehyde	000050-00-0	.0189
Glycol ethers	RR-00067-9	.0018
Vinyl acetate	000108-05-4	.0171
Zinc Compound	RR-00578-7	5.2

National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: (gr/L) 6.0 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	.0013
Acrylamide	000079-06-1	.0008
Acrylonitrile	000107-13-1	.0002
Ammonia	007664-41-7	.003
Ethyl acrylate	000140-88-5	.0021
Formaldehyde	000050-00-0	.0189
Quartz	014808-60-7	.3155
Vinyl acetate	000108-05-4	.0171

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

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Aluminum oxide	001344-28-1	17.

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Formaldehyde	000050-00-0	.018

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:**

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

Prepared by: EH&S Department
Approved by: EH&S Department
Approved Date: 02/16/2007 (Added C705 & C755 to represent 5 gallon and 55 gallon packaging configurations)

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."