

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: FlameSafe® C700+ Series Cable Coating

MSDS ID Number: Z-01739

MSDS Date: 04/15/2008

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: FlameSafe® C700+ Series Cable Coating
MSDS Number: Z-01739
Cancelled MSDS Number: New
MSDS Date: 04/15/2008
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)
1,2-Propylene glycol	000057-55-6	< 1
2-Propenoic acid, polymer...	052640-81-0	10-25
Aluminum oxide	001344-28-1	10-25
Frits, chemicals	065997-18-4	10-25
Glass Oxide, Chemical	065997-17-3	1-10
Magnesium Aluminum Silicate	012174-11-7	1-10
Mullite (Al ₆ O ₅ (SiO ₄) ₂)	001302-93-8	1-10
Quartz	014808-60-7	< 1
Silica, amorphous	007631-86-9	< 1
Titanium dioxide	013463-67-7	< 1
Vinyl Acetate Polymer	009003-20-7	1-10
Zinc borate	001332-07-6	1-10

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Caution!

Causes eye irritation.

Causes skin irritation.

Causes respiratory tract irritation.

Causes digestive tract irritation if ingested.

May cause risk of lung disease (i.e. silicosis and/or lung cancer).

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, wheezing and Prolonged inhalation of respirable crystalline silica dust can result in lung disease (i.e. silicosis and/or lung cancer). Symptoms include coughing, shortness of breath, wheezing and reduced pulmonary function.

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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.

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: Ingestion not expected to be harmful.

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

May be irritating if ingested.

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

If discomfort or irritation persists, consult a physician.

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: In case of fire, use water spray, dry chemical, Carbon dioxide or 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.

Spray application requires use of respiratory protection.

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			Substance Specific and Mineral Dust PELs
	TWA	STEL	Ceiling	TWA	STEL	Ceiling	
2-Propenoic acid, polymer...	-	-	-	-	-	-	-
Aluminum oxide	10 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica)	-	-	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	-	-	-
Frits, chemicals	-	-	-	-	-	-	-
Glass Oxide, Chemical	-	-	-	-	-	-	-
Magnesium Aluminum Silicate	-	-	-	-	-	-	-
Mullite (Al6O5(SiO4)2)	-	-	-	-	-	-	-
Quartz	0.025 mg/m3 TWA (respirable fraction)	-	-	-	-	-	((250)/(%SiO2 + 5) mppcf TWA (respirable)); ((10)/(%SiO2 + 2) mg/m3 TWA (respirable)); ((30)/(%
Silica, amorphous	-	-	-	-	-	-	20 mppcf TWA; ((80)/(% SiO2) mg/m3 TWA)
Titanium dioxide	10 mg/m3 TWA	-	-	15 mg/m3 TWA (total dust)	-	-	-
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)

EXPOSURE GUIDELINES (CANADA)

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

Engineering Controls: Use local exhaust ventilation or increased general ventilation when possible.

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.

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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/Hygienic 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.

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:	Not Available
Odor Threshold: (ppm)	Not Determined
pH:	Not Available
Vapor Pressure: (Mm Hg)	Unknown
Vapor Density: (Air = 1)	Unknown
Solubility In Water:	Unknown
Specific Gravity: (Water = 1)	Not Available
Evaporation Rate: (Butyl Acetate = 1)	Unknown
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

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	Yes
Mullite (Al6O5(SiO4)2)	No	No	No	No	No	No
Quartz	Yes	No	No	Yes	No	Yes
Titanium dioxide	No	No	Yes	No	No	Yes
Vinyl Acetate Polymer	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:	Not applicable.
Teratogenicity:	Not applicable.
Reproductive Toxicity:	In animal studies, borates cause reproductive and developmental effects.

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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>
Zinc borate	001332-07-6	5.2	1000 lb final RQ; 454 kg final RQ

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	.00137
Acrylamide	000079-06-1	.00082
Acrylonitrile	000107-13-1	.00027
Aluminum oxide	001344-28-1	17.3932
Ammonia	007664-41-7	.003
Ethyl acrylate	000140-88-5	.00219
Formaldehyde	000050-00-0	.01892
Vinyl acetate	000108-05-4	.0171
Zinc compounds	RR-00578-7	5.2

National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: (gr/L) 0

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 0.0001%(1ppm)):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Acetaldehyde	000075-07-0	.00137
Acrylamide	000079-06-1	.00082
Acrylonitrile	000107-13-1	.00027
Ammonia	007664-41-7	.003
Ethyl acrylate	000140-88-5	.00219
Formaldehyde	000050-00-0	.01892
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	17.3932
Zinc compounds	RR-00578-7	5.2

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Formaldehyde	000050-00-0	.01892

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	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
Zinc compounds	RR-00578-7

Prepared by: EH&S Department
Approved by: EH&S Department
Approved Date: 04/15/2008

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."