

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: DARAWELD C  
MSDS ID Number: MP-90470

MSDS Date: 09/26/2012

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** DARAWELD C  
**MSDS Number:** MP-90470  
**Cancelled MSDS Number:** MP-90433  
**MSDS Date:** 09/26/2012  
**Chemical Family Name:** Polyvinylacetate Polymer & Vinylacetate- dibutylmaleate  
Copolymer Dispersion in Water  
**Product Use:** Concrete Repair Bonding Agent  
**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**

<b>Ingredient</b>	<b>CAS#</b>	<b>Percent (max)</b>
Vinyl acetate-dibutyl maleate polymer	025035-90-9	25-50
Hexylene glycol	000107-41-5	1-10
Polyvinyl alcohol	009002-89-5	1-10
Vinyl acetate	000108-05-4	< 1
Vinyl Acetate Polymer	009003-20-7	25-50

**SECTION 3 - HAZARDS IDENTIFICATION**

**Emergency Overview:**

**Caution!**

Causes severe eye irritation.  
Causes skin irritation.  
May be harmful if ingested.  
Causes digestive tract irritation if ingested.

**HMIS Rating:**

Health: 2\*  
Flammability: 1  
Reactivity: 0  
Personal Protective Equipment: B, E (See section 8)

**Potential Health Effects:**

**Inhalation:** Causes respiratory tract irritation. If prolonged exposure to vapor or mist occurs, effects may be more severe resulting in coughing and breathing difficulties.  
Effects include: Nausea, sneezing and coughing.  
Extended inhalation and ingestion exposure to high concentrations of Vinyl acetate in animal rodent studies have resulted in increased tumor incidence. The relevance of these findings in humans is inconclusive.

**Eye Contact:** Eye contact can cause severe irritation.

Prolonged eye contact can result in tissue damage.

Vapors may cause eye irritation.

**Skin Contact:** Skin contact causes irritation.

Prolonged skin contact can result in irritation causing redness and itching.

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

**Ingestion:** Harmful if ingested.

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

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: DARAWELD C  
MSDS ID Number: MP-90470

MSDS Date: 09/26/2012

May be irritating if ingested. Ingestion may cause CNS depression causing dizziness, headache, nausea, un-coordination, drowsiness and increased reaction time.

**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.

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:** Tag Closed Cup

**Lower Explosion Limit:** Not Applicable

**Upper Explosion Limit:** Not Applicable

**Auto-Ignition Temperature:** Not Applicable

**NFPA Rating:**

**Health:** 1

**Flammability:** 1

**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. Water may be used to cool containers to prevent pressure build-up and possible auto-ignition or explosion. Avoid breathing hazardous vapors or products of combustion. Keep upwind. Isolate area and keep unnecessary people away. Prevent run-off from fire control or dilution from entering streams or drinking water supplies. No special procedures specific to this product.

**Unusual Fire and Explosion Hazards:** Burning may release Carbon monoxide and Carbon dioxide.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES:**

**Spills/Leaks:** Use proper personal protective equipment. Do not flush to sewer or allow product to enter waterways. Keep unnecessary people away.

If product is spilled observe precautions above. Sweep up or shovel spilled material and place in suitable containers for recycle or 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.

**SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT**

**EXPOSURE GUIDELINES (US)**

Ingredient	ACGIH TLV			OSHA PEL			Other
	TWA	STEL	Ceiling	TWA	STEL	Ceiling	
2-Butenedioic acid (2Z)-, dibutyl ester, polymer with etheny	-	-	-	-	-	-	-
Hexylene glycol	-	-	25 ppm Ceiling	-	-	-	-
Polyvinyl alcohol	-	-	-	-	-	-	-
Vinyl acetate	10 ppm TWA	15 ppm	-	10 ppm TWA;	20 ppm STEL;	-	-

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: DARAWELD C  
MSDS ID Number: MP-90470

MSDS Date: 09/26/2012

		STEL		30 mg/m3 TWA	60 mg/m3 STEL		
Vinyl Acetate Polymer	-	-	-	-	-		-

**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:** A chemical cartridge respirator with organic vapor cartridge is required at or above the applicable exposure limits (Consult above Exposure Guidelines). If a mist is present a pre filter for mist should be used. Supplied Air Respirator (SCBA) is required at exposure levels above the capabilities of a chemical cartridge respirator.

**Skin Protection:** Rubber or other impervious gloves should be worn to prevent skin contact.

**Eye Protection:** At minimum, safety glasses with side shields should be worn where exposure to excessive dust or spray is likely.

**Work/Hygienic Practices:** Use good personal hygiene practices.  
None beyond those noted above.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Liquid
<b>Appearance/Odor:</b>	White milky liquid with slight vinegar odor.
<b>Odor Threshold: (ppm)</b>	50.0ppm (as Hexylene glycol), 0.5ppm (as Vinyl acetate)
<b>pH:</b>	4.5 - 5.5
<b>Vapor Pressure: (Mm Hg)</b>	~Water
<b>Vapor Density: (Air = 1)</b>	~Water
<b>Solubility In Water:</b>	Miscible
<b>Specific Gravity: (Water = 1)</b>	~1.0
<b>Evaporation Rate: (Butyl Acetate = 1)</b>	~Water
<b>Boiling Point:</b>	~212°F/100°C
<b>Viscosity:</b>	Unknown
<b>Bulk Density: (Pounds/Cubic Foot)(Pcf)</b>	Not Applicable
<b>% Volatiles (gr/L): (70°F) (21°C)</b>	~47% H <sub>2</sub> O

**SECTION 10 - STABILITY AND REACTIVITY**

<b>Chemical Stability:</b>	Stable
<b>Conditions To Avoid:</b>	None known for this product.
<b>Hazardous Polymerization:</b>	Will not polymerize.
<b>Hazardous Decomposition Products:</b>	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-Butenedioic acid (2Z)-, dibutyl ester, polymer with etheny	No	No	No	No	No	No
Hexylene glycol	No	No	No	No	No	No
Polyvinyl alcohol	No	No	No	No	No	No
Vinyl acetate	No	No	Yes	No	No	Yes
Vinyl Acetate Polymer	No	No	No	No	No	No

Extended inhalation and ingestion exposure to high concentrations of vinyl acetate in animal rodent studies have resulted in increased tumor incidence. The relevance of these findings in humans is inconclusive.

<b>Mutagenicity:</b>	Not applicable.
<b>Teratogenicity:</b>	Not applicable.
<b>Reproductive Toxicity:</b>	Not applicable.

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: DARAWELD C  
MSDS ID Number: MP-90470

MSDS Date: 09/26/2012

---

**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
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>
Vinyl acetate	000108-05-4	.5

**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:** This product does not contain substances known to the state of California to cause cancer, birth defects or other reproductive harm.

**Massachusetts Hazardous Substance List(Identification threshold 0.0001%(1ppm)):**

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Vinyl acetate	000108-05-4	.5

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

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Vinyl acetate	000108-05-4	.5

**Pennsylvania Hazardous Substance List(Identification threshold 0.01%):**

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
----------------------	--------------	-------------

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: DARAWELD C

MSDS ID Number: MP-90470

MSDS Date: 09/26/2012

**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	Yes	Not Determined	Yes	Yes

**SECTION 16 - OTHER INFORMATION**

**Non-Hazardous Ingredient Disclosure:**

**Chemical Name**

Water

**CAS Number**

007732-18-5

**Prepared by:**

EH&S Department

**Approved by:**

EH&S Department

**Approved Date:**

09/26/2012

**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."