

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: Daracel
MSDS ID Number: D-06090

MSDS Date: 04/28/2006

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Daracel
MSDS Number: D-06090
Cancelled MSDS Number: D-05698
MSDS Date: 04/28/2006
Chemical Family Name: Aqueous Solution of Calcium Chloride with Triethanolamine
Product Use:
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
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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)
Calcium Chloride	010043-52-4	25-50
Potassium Chloride	007447-40-7	1-10
Sodium chloride	007647-14-5	1-10
Triethanolamine	000102-71-6	1-10

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Warning!

Causes severe eye irritation.
Causes skin irritation.
May be harmful if ingested.
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. If prolonged exposure to vapor or mist occurs, effects may be more severe resulting in coughing and breathing difficulties.

Effects include: If prolonged exposure to vapor or mist occurs, effects maybe more severe resulting in coughing and breathing difficulties.

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.

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

Ingestion: Harmful if ingested.

Effects include: Nausea, vomiting, diarrhea and digestive tract irritation.

The following applies to Triethanolamine and associated materials: Triethanolamine has caused blood effects and liver and kidney damage in laboratory animal studies.

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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: Not Applicable
Flash Point Method: Aqueous/Inorganic
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. 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.
Do not scatter spilled material with high pressure water stream. Fog nozzles are preferred if water is used.
Unusual Fire and Explosion Hazards: During fire, oxides of nitrogen may be evolved.

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.
Contain and/or absorb spill with inert material (i.e. sand, vermiculite) then place in a suitable container. For large spills, dike area and pump waste material into closed containers for disposal or reclamation.

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	
Calcium Chloride	-	-	-	-	-	-	-
Potassium Chloride	-	-	-	-	-	-	-
Sodium chloride	-	-	-	-	-	-	-
Triethanolamine	5 mg/m3 TWA	-	-	-	-	-	-

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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. However, a chemical cartridge respirator with organic vapor cartridge and a prefilter for dusts/mits is required at or above the applicable exposure limits (Consult above Exposure Guidelines). If no limits exist, use an approved respirator whenever a vapor or mist is generated or if respiratory irritation occurs. 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.

Do not add nitrites to this product. Cancer-causing nitrosamines may be formed. Calcium chloride solutions will dry out and damage leather goods such as work boots and will reduce the expected life of such items.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance/Odor:	Blue color with a turbidity or a fine precipitate; medium blue, clear solution
Odor Threshold: (ppm)	Not Determined
pH:	8.5 - 10.0
Vapor Pressure: (Mm Hg)	7-15 mmHG @ 25°C, 77°F
Vapor Density: (Air = 1)	Same as Water
Solubility In Water:	Complete
Specific Gravity: (Water = 1)	1.3 - 1.4 @ 25°C, 77 °F
Evaporation Rate: (Butyl Acetate = 1)	~Equal to Water
Boiling Point:	230-251°F, 110-122°C
Viscosity:	Unknown
Bulk Density: (Pounds/Cubic Foot)(Pcf)	Not Applicable
% Volatiles (gr/L): (70°F) (21°C)	~65 (As Water)

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions To Avoid:	Strong acids and Most metals.
Hazardous Polymerization:	Will not polymerize.
Hazardous Decomposition Products:	None known for this product.

SECTION 11 - TOXICOLOGICAL INFORMATION

<u>Ingredient(No data unless listed.)</u>	<u>CAS Number</u>	<u>LD50 and LC50</u>
Calcium Chloride	010043-52-4	Oral LD50 Rat: 1 gm/kg; Oral LD50 Mouse: 1940 mg/kg
Potassium Chloride	007447-40-7	Oral LD50 Rat: 2600 mg/kg; Oral LD50 Mouse: 1500 mg/kg
Sodium chloride	007647-14-5	Inhalation LC50 Rat: >42 gm/m ³ /1H; Oral LD50 Rat: 3 gm/kg; Oral LD50 Mouse: 4 gm/kg; Dermal LD50 Rab
Triethanolamine	000102-71-6	Oral LD50 Rat: 4920 uL/kg; Oral LD50 Mouse: 5846 mg/kg; Dermal LD50 Rabbit: >20 mL/kg

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Carcinogenicity:

Ingredient	IARC Group 1	IARC Group 2A	IARC Group 2B	NTP Known	NTP Suspect	OSHA
Calcium Chloride	No	No	No	No	No	No
Potassium Chloride	No	No	No	No	No	No
Sodium chloride	No	No	No	No	No	No
Triethanolamine	No	No	No	No	No	No

Mutagenicity: Not applicable.
Teratogenicity: Not applicable.
Reproductive Toxicity: Not applicable.

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: Concrete or Masonry Plasticizer & Water Reducing Compound
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>
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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>
Diethanolamine	000111-42-2	.0666
Glycol ethers	RR-00067-9	.0012

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 0.001%(1ppm)):

Chemical Name **CAS #** **Wt %**

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

Chemical Name **CAS #** **Wt %**

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

Chemical Name **CAS #** **Wt %**

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:

Chemical Name

Water

CAS Number

007732-18-5

Prepared by:

EH&S Department

Approved by:

EH&S Department

Approved Date:

4/28/06

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."