

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: WRDA With Hycol (CR-671)
MSDS ID Number: D-05657

MSDS Date: 11/18/2003

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: WRDA With Hycol (CR-671)
MSDS Number: D-05657
Cancelled MSDS Number: D-05522
MSDS Date: 11/18/2003
Chemical Family Name: Aqueous solution of Lignosulfonate, Compound
Carbohydrates and Amine Salts
Product Use: Concrete Water Reducer/Retarder
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)
Diethanolamine	000111-42-2	< 1
Formic acid	000064-18-6	1-10
Sodium o-phenylphenol	000132-27-4	< 1
Triethanolamine	000102-71-6	1-10
Triethanolamine Acetate	014806-72-5	1-10

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Caution!

- Causes eye irritation.
- Causes respiratory tract irritation.
- May be harmful if ingested.
- May cause tumorigenic and reproductive effects.
- May cause liver and kidney damage.

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HMIS Rating:

Health:	1
Flammability:	1
Reactivity:	0
Personal Protective Equipment:	B (See Section 8)

Potential Health Effects:

Inhalation:

Not expected to result in adverse effects. If inhaled as vapor or mist, causes irritation, sore throat, coughing and breathing difficulties.

Eye Contact:

Eye contact causes irritation.

Skin Contact:

Acute skin contact is not expected to result in adverse effects.

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

May cause sensitization.

Skin Absorption:

Not expected to be harmful if absorbed through the skin.

Ingestion:

Harmful if ingested.

Tumorigenic and reproductive effects have been reported for some amines based on animal studies. The following applies to Triethanolamine and associated materials:

Triethanolamine has caused blood effects and liver and kidney damage in laboratory animal studies.

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.

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SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

Flash Point:	>93°C/200°F
Flash Point Method:	Estimated
Lower Explosion Limit:	Not Available
Upper Explosion Limit:	Not Available
Auto-Ignition Temperature:	Not Available

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.

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.

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SECTION 7 - HANDLING AND STORAGE

Precautionary Measures:

Keep away from heat, sparks and flame.
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	
Diethanolamine	2 mg/m3 TWA	-	-	3 ppm TWA; 15 mg/m3 TWA	-	-	-
Triethanolamine	5 mg/m3 TWA	-	-	-	-	-	-

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/mists 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.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance/Odor:	Dark brown liquid with slight, non-distinct odor.
Odor Threshold: (ppm)	None Established
pH:	6-8
Vapor Pressure: (Mm Hg)	Not Applicable
Vapor Density: (Air = 1)	Not Applicable
Solubility In Water:	Complete
Specific Gravity: (Water = 1)	1.1 - 1.2
Evaporation Rate: (Butyl Acetate = 1)	~Equal to Water
Boiling Point:	>100°C/212°F
Viscosity:	Unknown
Bulk Density: (Pounds/Cubic Foot)(Pcf)	Not Applicable
% Volatiles (gr/L): (70°F) (21°C)	~55% (As Water)

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions To Avoid:	None known for this product.
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>
Formic acid	000064-18-6	Inhalation LC50 Rat: 15 g/m3/15M; Inhalation LC50 Mouse: 6200 mg/m3/15M; Oral LD50 Rat: 1100 mg/kg;
Triethanolamine	000102-71-6	Oral LD50 Rat: 4920 µL/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
Formic acid	No	No	No	No	No	No
Sodium o-phenylphenol	No	No	Yes	No	No	No
Triethanolamine	No	No	No	No	No	No

This product may contain Sodium o-phenylphenate CAS# 132-27-4 as a preservative at a concentration of .25% or less. Sodium o-phenylphenate has been shown to cause bladder tumors when fed exaggerated doses to rats. The compound is classified as IARC Group 2B (possibly carcinogenic to humans). However, risks from handling this product are considered negligible.

Mutagenicity: Not applicable.

Teratogenicity: Amines contained in this product has been shown to produce teratogenic and developmental toxic effects in laboratory animals.

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

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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)	No
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	.2886
Nitrate compounds	RR-01770-9	.00175
Sodium o-phenylphenol	000132-27-4	.18

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)):

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<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Sodium o-phenylphenol	000132-27-4	.18

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

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Diethanolamine	000111-42-2	.2886
Sodium o-phenylphenol	000132-27-4	.18

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
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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
Calcium Lignosulfonate	008061-52-7
Corn Syrup	008029-43-4

Prepared by: EH&S Department
Approved by: EH&S Department
Approved Date: 11/18/2003

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."