

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS PREPARED BY: Environmental Health Dept.-Grace Construction Products

W.R.Grace & Co.-Conn.

Grace Canada, Inc.

62 Whittemore Ave.

294 Clements Rd. West

Cambridge, MA 02140

Ajax, Ontario, L1S 3C6

Telephone Number for Information and Emergency Response

In USA: (617) 876-1400

In Canada: (905) 683-8561

MSDS Number: D-05542

000001

Cancels MSDS # D-05530

Date: 10/31/2000

Trade Names and Synonyms:WRDA[®], WRDA[®] 35, WRDA[®] 64,
WRDA[®] 79, WRDA[®] 82(SEE SECTION 16 FOR ADDITIONAL
PRODUCT IDENTIFICATION)**Chemical Names and Family:**Aqueous Solution of Lignosulfonate and
Amine. May also contain Compound
Carbohydrates.**Product Use:**

Concrete Water Reducer/Retarder

Formula:

MIXTURE-NA

CAS# (Chemical Abstract Service):

MIXTURE-NA

SECTION 2 - HAZARDOUS INGREDIENT AND MAJOR COMPONENT INFORMATION

(See Section 11 for Complete Chemical Names)

| INGREDIENT: | Max. % By Wt. | EXPOSURE LIMITS | | |
|---|------------------|------------------|--------------------------|-----------------------------------|
| | | OSHA | Exposure Limits ACGIH | OTHER |
| SODIUM O-PHENYLPHENATE CAS# 132-27-4 | 0.25 | None Established | None Established | None Established |
| TRIETHANOLAMINE CAS# 102-71-6 | 10.00 | None Established | TLV - 5mg/m3 | None Established |
| GLUTARALDEHYDE CAS# 111-30-8 | 0.15 | 0.2ppm Ceiling | 0.05ppm Ceiling | 0.1ppm Ceiling (Union Carbide) |

EXPOSURE GUIDELINES - CANADAEmployers should check with provincial regulatory agencies for exposure guidelines,
which may vary locally.

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:**Warning Statements:**

WARNING! MAY CAUSE SKIN AND EYE IRRITATION.

- ... Contains Triethanolamine CAS# 102-71-6, Lignosulfonate CAS# 8016-52-7 and Water CAS# 7732-18-5. May also contain Compound carbohydrates CAS# 8029-43-4. Contains Sodium o-phenylphenate CAS# 132-27-4 or Glutaraldehyde CAS# 111-30-8 at less than 0.25% as a preservative.
- ... Contact may cause eye irritation.
- ... Prolonged or repeated contact may cause skin irritation. In rare cases, Triethanolamine may cause an allergic skin response.
- ... May be harmful if swallowed.
- ... Based on laboratory animal studies, overexposure by ingestion may cause tumorigenic effects to the blood, liver and kidneys.
- ... Read and understand all Health and Safety information on the product Label and Material Safety Data Sheet before use.

NPCA-HMIS Hazard Index:

- o Health: 2
- o Flammability: 1
- o Reactivity: 0
- o Personal Protection: B
(See Section 8)

Potential Health Effects**Routes of Exposure:****Inhalation:**

Adverse health effects are not expected from typical use. However, if product is inhaled as a vapor or mist, may cause irritation to the upper respiratory tract causing sore throat, coughing and breathing difficulties.

Skin and Eye:

Eye contact with solution may cause irritation and slight reversible corneal injury. Prolonged contact with skin may cause irritation. In rare cases, Triethanolamine may cause an allergic skin response.

Ingestion:

Swallowing may irritate mouth, throat, and stomach causing pain, nausea and vomiting. Liver/kidney damage and blood effects have been reported in chronic exposure studies using laboratory animals.

SECTION 3 - HAZARDS IDENTIFICATION (Cont'd)

Carcinogenicity Information:

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.

SECTION 4 - FIRST AID MEASURES

EYE: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation persists.

SKIN: Wash skin with soap and water. If irritation develops and persists, call a physician. Wash contaminated clothes before reuse.

INHALATION: If irritation due to inhalation develops, get fresh air. If symptoms persists, call a physician.

INGESTION: If swallowed, do not induce vomiting. Give large quantities of water for dilution effect. Never give anything by mouth to an unconscious person. Get medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: >93°C/200°F Flammable Limits:
Method Used: (est.-aqueous system) LEL N/A UEL N/A
N.F.P.A. Rating: H-1 F-1 R-0

Extinguishing Media

Product is an aqueous solution and is unlikely to burn until all water has been evaporated. In case of fire, use water, dry chemical, Carbon dioxide or "alcohol" foam.

Special Fire Fighting Procedures

Not Applicable

Unusual Fire and Explosion Hazards

Not Applicable

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Prevent product from entering drinking water supplies or streams. Observing precautions above, collect liquid or absorb liquid with an inert, noncombustible material and remove for disposal.

Spill reporting requirements and reportable quantities vary by region. In case of any spill or release, consult Section 6, 13 and 15 of the MSDS and all applicable local, state and federal regulations.

SECTION 7 - HANDLING AND STORAGE INFORMATION

Precautionary Measures:

- ... Avoid contact with eyes, skin and clothing.
- ... Wash thoroughly after handling.
- ... Use with adequate ventilation.
- ... FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation:

| | |
|----------------|------------------------|
| Local Exhaust: | Not generally required |
| Mechanical: | Not generally required |
| Special | Not applicable |
| Other: | Not applicable |

Respiratory Protection:

Respiratory protection is not generally required during use of this product. However, if use causes respiratory irritation or generates vapor/mist, a NIOSH-approved organic vapor respirator with a prefilter for mists is recommended.

Skin Protection:

Rubber or other impervious gloves should be worn to guard against prolonged or repeated contact.

Eye Protection:

Use chemical goggles or face shield if direct contact due to splashing is possible.

Other Protective Clothing or Equipment:

Wear appropriate clothing to prevent skin contact.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION (Cont'd)Work/Hygienic Practices:

Personal Protective Equipment (PPE) specified above is appropriate for typical production operations and exposures. For any unusual situations such as vessel entry or spill clean-up, your supervisor and/or Health and Safety Department should determine additional PPE requirements and safety procedures.

Do not mix directly with Sodium nitrite, Calcium nitrite or other nitrosating agents. Suspected cancer causing nitrosamines may be formed.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| <u>Boiling Point:</u> >100°C/212°C (estimated) | <u>Specific Gravity</u> (H ₂ O=1) 1.1 - 1.2 |
| <u>Vapor Pressure</u> (mm Hg.) Not Applicable | <u>% Volatiles</u> ~50 (As Water) |
| <u>Vapor Density</u> (AIR = 1) Not Applicable | <u>Evaporation Rate</u> Not Applicable (Butyl Acetate = 1) |
| <u>Solubility in Water:</u> Complete | <u>pH</u> 6 - 9 |
| <u>Bulk Density</u> (#/cu. ft): Not Applicable | |
| <u>Appearance and Odor:</u> Dark brown liquid with slight, non-distinct odor. | |
| <u>Odor Threshold:</u> None Established | |

SECTION 10 - STABILITY AND REACTIVITY

Stable under normal conditions (yes or no): YES
Conditions or Materials to avoid (which may react or cause instability):
 Avoid contact with strong oxidizers.

Hazardous Decomposition or Byproducts:
 Sulfur dioxide, Carbon dioxide, and Carbon monoxide.

Hazardous Polymerization:
 Will not occur

Conditions to Avoid:
 None Known

SECTION 11 - TOXICOLOGICAL INFORMATION

| INGREDIENT (Chemical Name, CAS#, & Common Name) | TOXICITY DATA LD ₅₀ , LC ₅₀ etc. (See Section 2 for Exposure Limits) |
|--|--|
| Triethanolamine CAS# 102-71-6 | LD ₅₀ (oral, rat) greater than 5g/kg LD ₅₀ (skin, rabbit) greater than 10g/kg |
| Miscellaneous Ingredients (NOT REGULATED AS HAZARDOUS - SEE SECTION 15) | LD ₅₀ (oral, rat) 22 g/kg |
| Glutaraldehyde CAS# 111-30-8 | LD ₅₀ (oral, rat) 134 mg/kg |
| Sodium O-phenylphenate CAS# 132-27-4 | LD ₅₀ (oral, rat) 656 mg/kg |

SECTION 12 - ECOLOGICAL INFORMATION

None Available At This Time.

SECTION 13 - DISPOSAL CONSIDERATIONS

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing waste for disposal. Dispose of waste in accordance with all applicable regulations.

According to U.S. EPA (40 CFR § 261) waste of this product is not defined as hazardous.

SECTION 14 - TRANSPORT INFORMATION**Transportation Hazard Classification**

PROPER SHIPPING: Not Applicable

NAME

HAZARD CLASS: Not Applicable

IDENTIFICATION #: Not Applicable

LABEL(s) REQUIRED: Not Applicable

Surface Freight Classification: Concrete or Masonry Plasticizer
& Water Reducing Compound

SECTION 15 - REGULATORY INFORMATION (Not Meant To Be All Inclusive
Selected Regulations Represented)

SARA TITLE III REPORTING INFORMATION**Tier I & II HAZARD CATEGORIES:**IMMEDIATE (ACUTE) HEALTH
DELAYED (CHRONIC) HEALTH

Contains Extremely Hazardous-SARA III Section 302 Ingredient: NO
Comments:

Contains Toxic Chemical Release-SARA III Section 313 Ingredient: NO
Comments: May contain Sodium o-phenylphenate at 0.25% Max: REPORTABLE
May contain trace levels of Diethanolamine NOT REPORTABLE
(less than 0.2%):

Other Government Reporting Requirements:**CHEMICAL INVENTORY CERTIFICATION:****For U.S. Products ONLY**

All ingredients contained in this product are included on the US EPA Toxic Substances Control Act (TSCA) Inventory or exempt from listing on the TSCA Inventory. Products may contain trace amounts of Diethanolamine which is subject to export notification requirements in accordance with Section 12(b) of TSCA.

For Canadian Products ONLY

All ingredients contained in this product comply with the requirements of the Canadian Environmental Protection Act (CEPA) and are listed on the Domestic Substance List (DSL) or Non-Domestic Substance List (NDSL).

CERCLA/SARA SECTION 304 HAZARDOUS SUBSTANCES:

Products contain variable amounts of Triethanolamine (TEA) as noted in the table below. In some cases, trace levels of Diethanolamine may be present. Diethanolamine is listed by the US EPA as a hazardous substance with a reportable quantity of 100 lbs. Based on the maximum possible Diethanolamine content, a spill of 5,000 gallons for some products could exceed the EPA Reportable Quantity. If a release of this magnitude should occur, contact the Grace Construction Products EHS Department for more information at (800) 354-5414 or report the release directly to the National Response Center at (800) 424-8802.

SECTION 15 - REGULATORY INFORMATION (Cont'd) (Not Meant To Be All Inclusive
Selected Regulations Represented)

| <u>Product</u> | <u>Max. TEA</u> | <u>Product</u> | <u>Max. TEA</u> | <u>Product</u> | <u>Max. TEA</u> |
|----------------|-----------------|----------------|-----------------|----------------|-----------------|
| WRDA® | 2 | WRDA® 64C | 6 | WRDA® 79 | 2 |
| WRDA® 35 | - | WRDA® 64L | 4 | WRDA® 82 | 7 |

STATE SPECIFIC EMERGENCY RELEASE REQUIREMENTS:

Some state regulated reportable quantity thresholds may be more stringent than the federal requirements noted above. Due to the complex and dynamic nature of these regulations, it is not possible to provide a complete summary. You should contact the Environmental Compliance Coordinator in your company or the appropriate Department of Environmental Protection if product is released to land or water.

CALIFORNIA PROPOSITION 65 INFORMATION: WARNING! This product may contain substances known to the state of California to cause cancer, birth defects or other reproductive harm.

WHMIS CLASS: D-2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR). This MSDS contains all the information required by the CPR.

Nonhazardous Ingredient Disclosure:

Water CAS# 7732-18-5, Lignosulfonate CAS# 8061-52-7 and Compound Carbohydrates CAS# 8029-43-3.

SECTION 16 - OTHER INFORMATION

The information contained in this Material Safety Data Sheet is applicable to the following products:

| | |
|----------|----------|
| WRDA® | WRDA® 79 |
| WRDA® 35 | WRDA® 82 |
| WRDA® 64 | |

"THE DATA INCLUDED HEREIN ARE PRESENTED IN ACCORDANCE WITH VARIOUS ENVIRONMENT, HEALTH AND SAFETY REGULATIONS. IT IS THE RESPONSIBILITY OF A RECIPIENT OF THIS 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."