

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: Daravair® 1400
MSDS ID Number: D-06422

MSDS Date: 10/21/2008

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Daravair® 1400
MSDS Number: D-06422
Cancelled MSDS Number: D-06209
MSDS Date: 10/21/2008
Chemical Family Name: Aqueous Solution of Neutralized Resin Acids and Rosin Acids
Product Use: Concrete Air Entraining 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

| Ingredient | CAS# | Percent (max) |
|--|-------------|---------------|
| Dipropylene glycol | 025265-71-8 | 1-10 |
| Resin acids and Rosin acids, maleated, potassium salts | 085409-27-4 | 1-10 |

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Caution!

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

HMIS Rating:

Health: 2*
Flammability: 0
Reactivity: 0
Personal Protective Equipment: B (See Section 8)

Potential Health Effects:

Inhalation: Acute inhalation not expected to result in adverse effects.
If inhaled as a vapor or mist, causes irritation, sore throat, coughing and breathing difficulty.
Effects include: Tightness of chest, hypersensitive individuals may experience allergic respiratory reaction and wheezing.
Eye Contact: Eye contact causes burns.
Skin Contact: Skin contact causes irritation.
Prolonged skin contact can result in burns.
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: Harmful if ingested.
If ingested, causes burns to the linings of the mouth, esophagus and stomach.
Effects include: No other effects expected unless listed below.

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.

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: Daravair® 1400
MSDS ID Number: D-06422

MSDS Date: 10/21/2008

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
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. 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.
Unusual Fire and Explosion Hazards: None unless noted below.

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 | | | |
|--|-----------|------|---------|----------|------|---------|--|
| | TWA | STEL | Ceiling | TWA | STEL | Ceiling | Substance Specific and Mineral Dust PELs |
| Dipropylene glycol | - | - | - | - | - | - | - |
| Resin acids and Rosin acids, maleated, potassium salts | - | - | - | - | - | - | - |

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:

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: Daravair® 1400
MSDS ID Number: D-06422

MSDS Date: 10/21/2008

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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Physical State: | Liquid |
| Appearance/Odor: | Dark brown liquid with sweet, pine-like odor. |
| Odor Threshold: (ppm) | Not Determined |
| pH: | 10.5-11.0 |
| Vapor Pressure: (Mm Hg) | Unknown |
| Vapor Density: (Air = 1) | Unknown |
| Solubility In Water: | Complete |
| Specific Gravity: (Water = 1) | 1.00-1.02 |
| 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) | Not Available |

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> | | |
|---|-------------------|--|--|----------------------|--|--|
|---|-------------------|--|--|----------------------|--|--|

| <u>Carcinogenicity:</u> | <u>CAS Number</u> | | | <u>LD50 and LC50</u> | | |
|--|-------------------|---------------|---------------|----------------------|-------------|------|
| Ingredient | IARC Group 1 | IARC Group 2A | IARC Group 2B | NTP Known | NTP Suspect | OSHA |
| Dipropylene glycol | No | No | No | No | No | No |
| Resin acids and Rosin acids, maleated, potassium salts | 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 |
|------------------------------|----------------|

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: Daravair® 1400
MSDS ID Number: D-06422

MSDS Date: 10/21/2008

| | |
|--|-------------------|
| UN/NA Number: | Not Applicable |
| Domestic Hazard Class: | Nonhazardous |
| Surface Freight Classification: | Concrete additive |
| Label/Placard Required: | Not Applicable |

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: Daravair® 1400
MSDS ID Number: D-06422

MSDS Date: 10/21/2008

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> |
|---|--------------|-------------|
| Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione | 000533-74-4 | .0205 |

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: 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> |
|----------------------|--------------|-------------|
|----------------------|--------------|-------------|

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

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

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

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

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 | Yes | Yes | No | Yes | Yes |

SECTION 16 - OTHER INFORMATION

Non-Hazardous Ingredient Disclosure:

| <u>Chemical Name</u> | <u>CAS Number</u> |
|----------------------|-------------------|
| Water | 007732-18-5 |

Prepared by: EH&S Department
Approved by: EH&S Department
Approved Date: 10/21/2008

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."