

Product Name: MIRA 85  
MSDS ID Number: D-06292

MSDS Date: 08/17/2007

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

**Product Name:** MIRA 85  
**MSDS Number:** D-06292  
**Cancelled MSDS Number:** D-05855  
**MSDS Date:** 08/17/2007  
**Chemical Family Name:** Aqueous Solution of Lignosulfonate, Formate, Thiocyanate and Amine  
**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
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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**

<b>Ingredient</b>	<b>CAS#</b>	<b>Percent (max)</b>
Ethanol, 2,2',2",2'''-(1,2-ethanediyldinitrilo)tetrakis-	000140-07-8	1-10
Sodium formate	000141-53-7	10-25
Sodium thiocyanate	000540-72-7	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.
- Causes digestive tract irritation if ingested.
- May cause liver and kidney damage.

**HMIS Rating:**

Health:	2*
Flammability:	1
Reactivity:	0
Personal Protective Equipment:	B (See Section 8)

**Potential Health Effects:**

**Inhalation:** Overexposure is not likely to occur unless specific use generates dust, vapors or mist. Prolonged inhalation may cause sensitization. Effects include: If prolonged exposure to vapor or mist occurs, effects maybe more severe resulting in coughing and breathing difficulties and This product has the potential for hazardous gas generation when exposed to acids.

**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 irritation causing redness and itching. May cause sensitization.

**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.

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Effects include: Nausea, vomiting, diarrhea, digestive tract irritation, loss of consciousness and death.

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.

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:** >93°C/200°F

**Flash Point Method:** (est.-aqueous system)

**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.

#### **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.

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**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 Mine PELs
Ethanol, 2,2',2",2'''-(1,2-ethanediyldinitrilo)tetrakis-	-	-	-	-	-	-	-
Sodium formate	-	-	-	-	-	-	-
Sodium thiocyanate	-	-	-	-	-	-	-
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.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Liquid
<b>Appearance/Odor:</b>	Dark brown liquid with slight, non-distinct odor.
<b>Odor Threshold: (ppm)</b>	None Established
<b>pH:</b>	7.5 - 9.0
<b>Vapor Pressure: (Mm Hg)</b>	Not Applicable
<b>Vapor Density: (Air = 1)</b>	Not Applicable
<b>Solubility In Water:</b>	Complete
<b>Specific Gravity: (Water = 1)</b>	1.1 - 1.2
<b>Evaporation Rate: (Butyl Acetate = 1)</b>	Not Applicable
<b>Boiling Point:</b>	>100°C/212°F
<b>Viscosity:</b>	Unknown
<b>Bulk Density: (Pounds/Cubic Foot)(Pcf)</b>	Not Applicable
<b>% Volatiles (gr/L): (70°F) (21°C)</b>	~60% (As Water)

**SECTION 10 - STABILITY AND REACTIVITY**

<b>Chemical Stability:</b>	Stable
<b>Conditions To Avoid:</b>	Contact with acids can liberate very toxic gas.
<b>Hazardous Polymerization:</b>	Will not polymerize.
<b>Hazardous Decomposition Products:</b>	Carbon dioxide, Carbon monoxide, Sulfur oxides, Oxides of nitrogen and Cyanide gas.

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**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
Ethanol, 2,2',2'',2'''-(1,2-ethanediyldinitrilo)tetrakis-	No	No	No	No	No	No
Sodium formate	No	No	No	No	No	No
Sodium thiocyanate	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/Masonry Plasticizer and 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):**

W. R. GRACE  
MATERIAL SAFETY DATA SHEET

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<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Diethanolamine	000111-42-2	.00315
Methyl alcohol	000067-56-1	.002
Sodium o-phenylphenol	000132-27-4	.03
Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione	000533-74-4	.012

**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.

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

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Sodium o-phenylphenol	000132-27-4	.03

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

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
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**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>
Calcium Lignosulfonate	008061-52-7
Water	007732-18-5

**Prepared by:** EH&S Department

**Approved by:** EH&S Department

**Approved Date:** 08/17/2007

**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."