

# Material Safety Data Sheet

Aramid Series

MSDS No. 16016.2

Date of Preparation: 10/5/05

Revision: 4/13/09

## Section 1 - Chemical Product and Company Identification

**Product:** Aramid Series

**Manufacturer:** Marshall Additive Technologies

Division of the R. J. Marshall Company

26776 W. 12 Mile Road

Southfield, MI 48034-7807

Phone: (248) 353-4100, Fax: (248) 948-6460

**Emergency Phone:** (800) 424-9300

**Date Revised:** 4/13/09

**Preparer:** Stephanie Nichols

## Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number
Para-aramid polymer	26125-61-1
Crystalline Silica	14808-60-7
Inorganic Filler	-----

### Trace Impurities:

Ingredient	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
Para-aramid polymer	none estab.	none estab.	none estab.	none estab.
Crystalline Silica	10 mg/m <sup>3</sup> respirable dust	none estab.	0.025 mg/m <sup>3</sup> respirable dust	none estab.
Inorganic Filler	15 mg/m <sup>3</sup>	none estab.	10 mg/m <sup>3</sup>	none estab.

## Section 3 - Hazards Identification

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

**HMIS**  
**H** 1  
**F** 1  
**R** 0  
**PPE**†  
†Sec. 8

### Potential Health Effects

**Primary Entry Routes:** Inhalation, Eye, and Skin.

#### Acute Effects

**Inhalation:** May cause upper respiratory irritation and cold-like symptoms.

**Eye:** May cause slight mechanical irritation.

**Skin:** May cause irritation.

**Ingestion:** None known.

**Carcinogenicity:** IARC has listed crystalline silica as a human carcinogen.

**Chronic Effects:** This product contains crystalline silica (quartz) as an impurity. Prolonged exposure to respirable crystalline silica dust concentrations exceeding occupational exposure limits may increase the risk of developing a disabling lung disease called silicosis.

Breathing dust at very high concentrations repeatedly over long periods of time may cause fibrosis.

## Section 4 - First Aid Measures

**Inhalation:** If overcome by high dust concentrations, remove to fresh air. If breathing is difficult, give oxygen and call a physician. Seek medical attention if coughing or other symptoms occur.

**Eye Contact:** Flush eyes thoroughly for 15 minutes taking care to rinse under eyelids. If discomfort continues, continue to wash with water. If irritation persists, consult a physician.

**Skin Contact:** Wash skin thoroughly with soap and water for at least 15 minutes. Wash contaminated clothing before reuse. Use hand cream to sooth and moisten irritated skin. Consult a physician if irritation persists.

**Ingestion:** Not a probable route. However, in case of gastro-intestinal distress following accidental ingestion, call a physician.

## Section 5 - Fire-Fighting Measures

**Flash Point:** N/A

**Flash Point Method:** N/A

**Burning Rate:** Not determined.

**Auto-ignition Temperature:** Not determined.

**Flammability Classification:** Flame resistant, but can be ignited (limiting oxygen index=29).

**Extinguishing Media:** Water, CO2, Dry Chemical, and Foam.

**Unusual Fire or Explosion Hazards:** Burning produces hazardous gases similar to those from wool. Mainly CO2, nitrogen oxides, small amounts of hydrogen cyanide, ammonia, aldehydes, aliphatic hydrocarbons and other toxic gases, depending on conditions of burning.

**Fire-Fighting Instructions:** Keep personnel removed and upwind of fire. Do not flush to drains. Material is not biodegradable.

**Fire-Fighting Equipment:** Wear self-contained breathing apparatus and full protective equipment (full Bunker gear).

## Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Wash, shovel, or mop up and place in solid waste containers. Fiber is not biodegradable. Do not flush to drains. Avoid the use of dry sweeping or air jet blowing.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

## Section 7 - Handling and Storage

**Handling Precautions:** Avoid generating dust during handling.

**Storage Requirements:** Degraded by ultraviolet light. Do not store in direct sunlight. Fluorescent lighting will cause discoloration, but will not affect mechanical properties.

## Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:**

**Ventilation:** Use only with adequate ventilation. Avoid dust generation.

**Administrative Controls:**

**Respiratory Protection:** If ventilation and exhaust air is re-circulated, it should be filtered and conditioned to eliminate respirable fibers, dust, and fumes. An air-purifying respirator with a dust/mist/fume cartridge or canister may be used under circumstances meeting the respirator standard. Disposable dust masks equivalent to 3M model 8710 may also be used.

**Protective Clothing/Equipment:** Wear safety glasses, protective gloves and sleeves to minimize skin abrasion and drying. Barrier creams are not recommended as they may cause fiber dust to stick to the skin.

## Section 9 - Physical and Chemical Properties

**Physical State:** solid

**Appearance and Odor:** white, odorless solid.

**Odor Threshold:** n/e

**Vapor Pressure:** n/e

**Vapor Density (Air=1):** n/a

**Formula Weight:** n/a

**Density:** n/a

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** varies

**pH:** n/e

**Water Solubility:** Negligible

**Other Solubilities:** n/a

**Boiling Point:** does not boil

**Freezing/Melting Point:** does not melt

**Viscosity:** n/a

**Refractive Index:** n/a

**Surface Tension:** n/a

**% Volatile:** <2%

**Evaporation Rate:** n/e

## Section 10 - Stability and Reactivity

**Stability:** This product is stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** None anticipated under normal or recommended handling and storage conditions.

**Chemical Incompatibilities:** None anticipated.

**Conditions to Avoid:** none.

**Hazardous Decomposition Products:** none.

## Section 11- Toxicological Information

### Toxicity Data:\*

Acute Oral Effects: Very low toxicity by ingestion. Oral ALD >7500mg/kg in rats.

Subchronic Inhalation Effects: No permanent effects at concentrations of 280f/cc or less. Concentrations of 1000-2000f/cc caused mild, non-progressive fibrosis and non-specific effects such as weight loss and irritation.

Chronic Inhalation Effects: Long term exposures to high doses of respirable fibers could lead to pulmonary inflammation and subsequent development of chronic lung disease.

## Section 12 - Ecological Information

Non-biodegradable. Do not leach material toxic to floral or fauna.

## Section 13 - Disposal Considerations

**Disposal:** Dispose as solid waste in sanitary landfill or incinerate according to Federal, State, and local regulations. Do not flush to surface waters or to sanitary sewer systems.

## Section 14 - Transport Information

**DOT Transportation Data (49 CFR 172.101):** N/A

## Section 15 - Regulatory Information

### EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification: Not classified

CERCLA Hazardous Substance (40 CFR 302.4) Not listed

SARA Toxic Chemical (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed

### OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

**Proposition 65 (California):** Crystalline silica is subjected to the reporting requirements of California's Safe Drinking Water and Toxic Enforcement Act of 1986.

### TSCA

This substance or all of its components are on the Chemical Substances Inventory of the Toxic Substance Control Act (TSCA Inventory [USA]). Please note that this product is not subject to any legal reporting requirements under these acts.

## Section 16 - Other Information

**Prepared By:** Stephanie Nichols

**Revision Notes:** updated Section 2

**Product Grades Available from the R. J. Marshall Company** (this list may be incomplete):

AR36IA	AR51CB	AR51CE	AR59CB	AR59CC
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