

# Safety Data Sheet

SD200 & SD203

MSDS No. 16040.2

Date of Preparation: 4/14/09

Revision: 6/5/13

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** SD200 & SD203  
**Synonyms:** Charring agent.  
**General Use:** Fire retardant.  
**Manufacturer:** Marshall Additive Technologies

Division of The R. J. Marshall Company  
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**Emergency Phone:** (800) 424-9300  
**Date Revised:** 6/5/13  
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**H** 2  
**F** 0  
**R** 0  
**PPE**† E  
†Sec. 8

## Section 2 - Hazards Identification

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

#### Potential Health Effects



Warning:

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

#### Acute Effects

**Inhalation:** S22: Do not breathe dust. Inhalation of high concentrations of products containing antimony oxide can result in irritation of the respiratory tract, pneumoconiosis and possibly adverse cardiac effects.

**Eye:** May cause irritation through mechanical abrasion.

**Skin:** May cause irritation through mechanical abrasion. May cause skin rashes with itching.

**Ingestion:** May cause irritation of the gastrointestinal tract.

**Carcinogenicity:** R40-limited evidence of a carcinogenic effect. ACGIH lists antimony oxide as a suspected human carcinogen for production. ACGIH, OSHA, NTP, and IARC list arsenic trioxide as a carcinogen.

**Medical Conditions Aggravated by Long-Term Exposure:** Chronic respiratory disease.

**R36/37/38:** Irritating to eyes/ respiratory system/skin.

## Section 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number	Percent by Weight
Antimony Oxide	1309-64-4	Max 23.0
Arsenic Trioxide	1327-53-3	Max 0.014
Inorganic Filler	-----	Max 70.0
Zinc Compounds	-----	Max 15.0

## Section 4 - First Aid Measures

**Inhalation:** If overcome by high dust concentrations, remove to a ventilated area. Seek medical attention for any symptoms that may develop.

**Eye Contact:** Flush eyes thoroughly for 15 minutes taking care to rinse under eyelids. Do not scrub. Abrasion may cause irritation. 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. Consult a physician if irritation persists.

**Ingestion:** If person is conscious, give large quantities of milk or water, and then induce vomiting. Consult a physician.

*After first aid, get appropriate in-plant, paramedic, or community medical support.*

**Note to Physicians:** n/a

**Special Precautions/Procedures:** n/a

### Section 5 - Fire-Fighting Measures

**Extinguishing Media:** Water spray, carbon dioxide, or other dry chemical.

**Unusual Fire or Explosion Hazards:** None known.

**Hazardous Combustion Products:** None known.

**Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face-piece operated in pressure-demand or positive-pressure mode.

**S41:** In case of fire and/or explosion do not breathe fumes.

### Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Collect solids. Recycle if possible.

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

### Section 7 - Handling and Storage

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

**Storage Requirements:** Keep material dry.

### Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:**

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Administrative Controls:**

**Protective Clothing/Equipment:** S36/37/39: Wear suitable protective clothing, gloves, and eye protection. Wear dust mask.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** S20/21: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

**Exposure Limits:**

Ingredient	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
Antimony Oxide	none estab.	none estab.	none estab.	none estab.
Arsenic Trioxide	none estab.	none estab.	none estab.	none estab.
Inorganic Filler	15 mg/m <sup>3</sup> total dust 5 mg/m <sup>3</sup> respirable dust	None estab.	None estab.	None estab.
Zinc Compounds	15 mg/m <sup>3</sup> total dust 5 mg/m <sup>3</sup> respirable dust	None estab.	2 mg/m <sup>3</sup> respirable dust	None estab.

Note: For the purpose of reporting for Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.0 the maximum percent by weight Zinc content is 9.25.

## Section 9 - Physical and Chemical Properties

**Physical State:** white powder  
**Appearance and Odor:** white odorless powder  
**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):** 3.3-3.6  
**pH:** n/e  
**Auto-ignition Temperature:** Not determined  
**Flammability Classification:** Non-flammable.

**Water Solubility:** Very slight.  
**Other Solubilities:** n/a  
**Boiling Point:** n/a  
**Freezing/Melting Point:** n/a  
**Viscosity:** n/a  
**Refractive Index:** n/a  
**Surface Tension:** n/a  
**% Volatile:** n/a  
**Evaporation Rate:** n/a  
**Flash Point:** n/a  
**Flash Point Method:** n/a  
**Burning Rate:** Not determined.

## Section 10 - Stability and Reactivity

**Stability:** This product is stable at room temperature in closed containers under normal storage and handling conditions.  
**Polymerization:** Hazardous polymerization cannot occur.  
**Chemical Incompatibilities:** None known.  
**Conditions to Avoid:** None known.  
**Hazardous Decomposition Products:** n/a

## Section 11- Toxicological Information

**Eye Effects:** Nuisance dust. May cause irritation through mechanical abrasion. Flush with water for at least 15 minutes. Consult physician if irritation is persistent.

**Skin Effects:** Overexposure may cause "antimony spots" with itching and pimple eruption. Wash thoroughly with soap and water.

### Toxicity Data:\*

**Acute Inhalation Effects:** Overexposure to dust may cause irritation to the respiratory tract. Should this occur, remove affected individual to fresh air. If symptoms persist, consult a physician.

**Acute Oral Effects:** None known.

**Chronic Effects:** None known.

**Carcinogenicity:** ACGIH lists antimony oxide as a suspected human carcinogen for production (exposure for 8 hr. duration). ACGIH, OSHA, NTP, and IARC list arsenic trioxide as a carcinogen.

## Section 12 - Ecological Information



R50/53: Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.  
 S61: Avoid release to the environment.

## Section 13 - Disposal Considerations

**Disposal:** Recycle if possible or landfill. This substance is inert and does not require special disposal methods. Follow applicable Federal, state, and local regulations.

**Section 14 - Transport Information****DOT Transportation Data (49 CFR 172.101):**

Packing Size: 1087 lbs. or less

DOT shipping name: Antimony Trioxide (Antimony Oxide)

DOT Hazard Class: N/A

Packing Size: 1088 – 4346 lbs.

DOT shipping name: RQ environmentally Hazardous Substance, Solid, N.O.S., (Arsenic Trioxide), 9, UN3077, PGIII

DOT Hazard Class: 9

Packing Size: 4,347 lbs and greater

DOT shipping name: RQ Environmentally Hazardous Substance, Solid, N.O.S., (Antimony Trioxide, Arsenic Trioxide), 9, UN3077, PGIII

DOT Hazard Class: 9

Note: From column 7 of the Hazardous Material Table, special provision 35 states that “Antimony sulphides and oxides which do not contain more than 0.5% of arsenic calculated on the total mass do not meet the definition of Division 6.1.”

**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) Antimony Oxide is listed with a RQ of 5000#

SARA Toxic Chemical (40 CFR 372.65): Not listed

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

Zinc or Zinc compounds and Antimony Oxide are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.0.

Antimony Oxide is subject to the reporting requirements of California’s Safe Drinking Water and Toxic Enforcement Act of 1986 (“Proposition 65”).

**OSHA Regulations:**

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

**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.

**INTERNATIONAL REGULATIONS-This product or all of its components are listed on the following inventories:**

Australia AICS

Canadian DSL

European Union EINECS

Japan ENCS

Korea ECL

Philippines PICCS

**Section 16 - Other Information**

**Prepared By:** Stephanie Nichols

**Revision Notes:** 7/26/11

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

SD200
SD203

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