



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

221 Rochester Street  
Avon, New York 14414-9409  
(585) 226-6177

MSDS No.: SS1085 SS1090  
Effective Date: January 1, 2007

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	Sulfur
<b>Chemical Synonyms</b>	Sulfur Flower, Sulfur Flour, Roll
<b>Formula</b>	S
<b>Unit Size</b>	up to 2.5 Kg.
<b>C.A.S. No.</b>	7704-34-9

	<b>CHEMTREC</b> 800-424-9300 Day 585-226-6177	<b>Health</b>	1
		<b>Fire</b>	1
		<b>Reactivity</b>	0
<b>NFPA</b>		<b>HMIS*</b>	
<b>HAZARD RATING</b>		MINIMAL	SLIGHT
		MODERATE	SERIOUS
		SEVERE	
		0	1
		2	3
		4	

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Sulfur	100%	See Section V.

**WARNING! FLAMMABLE SOLID! BURNING SULFUR EMITS HIGHLY TOXIC FUMES. SULFUR DUST SUSPENDED IN AIR IGNITES EASILY. MAY CAUSE ALLERGIC REACTION.**

## SECTION III PHYSICAL DATA

Melting Point (°F)	116°-121°C (242°-251°F)	Specific Gravity (H <sub>2</sub> O = 1)	2.04-2.07 @ 21°C (70°F)
Boiling Point (°F)	444°C (831°F)	Percent Volatile by Volume (%)	Negligible.
Vapor Pressure (mm Hg)	0 @ 138°C (280°F)	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	N/A		
Solubility in Water	Insoluble.		
Appearance & Odor	Yellow powder, crystals or rolls (broken lumps); Faint odor of rotten eggs.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	207°C (405°F) (C.C.)	<b>Flammable Limits in Air % by Volume</b>	Lower	Upper
			3.3	46.0
<b>Extinguisher Media</b>	Use water fog.			

**SPECIAL FIREFIGHTING PROCEDURES**

In fire conditions, wear a MIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Use water fog; avoid straight streams which will scatter molten sulfur and dust. Small fires may be extinguished with sand or additional sulfur. Fire can rekindle if not cooled below 154°C (310°F).

(2004 EMERGENCY RESPONSE GUIDEBOOK, RSPA P 5800.9, GUIDE PAGE NO. 133)

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Easily ignitable, combustible solid. Dust or vapor forms explosive mixtures with air. Hazardous in contact with oxidizing materials, forming explosive mixtures. Explosion Hazard: Moderate, in the form of dust, when exposed to flames. Dangerous when heated it emits highly toxic fumes of oxides of sulfur; can react with oxidizing materials.

Autoignition Temperature: 248°C (478°F).

**D.O.T.** Sulfur, 9, NA1350, PG III

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

## SECTION V HEALTH HAZARD DATA SS1085

**Threshold Limited Value** None established. TLV: 10 mg/m<sup>3</sup> (total dust) or 5 mg/m<sup>3</sup> (respirable dust).

**Effects of Overexposure** Sulfur is essentially non-toxic either through ingestion, inhalation or skin contact. There are, however, some individuals who may be allergic and must not be permitted in the area of exposure. Sulfur is an eye irritant, but if prompt treatment is applied no lasting injury will result. Target organs: None known.

**Emergency and First Aid Procedures**

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. **EYES:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Heat, sparks, open flames and other heat sources.
	<b>Stable</b>	X		
<b>Incompatibility (Materials to Avoid)</b>	Reacts violently with strong oxidizing agents. Corrosive to copper and copper alloys. Damp sulfur will corrode steel.			

**Hazardous Decomposition Products** Sulfur dioxide.

<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>
<b>May Occur</b>	<b>Will Not Occur</b>
	X
Not applicable.	

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled**

Use non-sparking tools. Provide ventilation in spill area. Avoid creating dust in air and accumulation on surfaces from spills or laboratory operations. Sweep up and place in a suitable container for reclamation or disposal in an approved facility.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Dispose of in an approved sanitary landfill after mixing 3 parts by weight of calcium carbonate to neutralize the slow generation of sulfuric acid.

## SECTION VIII SPECIAL PROTECTION INFORMATION

<b>Respiration Protection (Specify Type)</b>	None should be needed in normal laboratory handling. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.			
<b>Ventilation</b>	<b>Local Exhaust</b>	<b>Recommended.</b>	<b>Special</b>	No.
	<b>Mechanical (General)</b>	<b>Recommended.</b>	<b>Other</b>	No.
<b>Protective Gloves</b>	Rubber.		<b>Eye Protection</b>	Chemical safety glasses/goggles.
<b>Other Protective Equipment</b>	Smock, apron, eye wash station, vent hood, fire extinguisher.			

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing**

Store in a cool, dry, well-ventilated area away from heat, sparks, flames and oxidizing agents. Avoid creating dust. All electric motors in sulfur working area should be of the explosive proof type. Wash thoroughly after handling.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Avoid contact with skin and eyes. Avoid breathing dust. Use with adequate ventilation. Use non-ferrous tools to reduce sparking. Remove and wash contaminated clothing before reuse.

<b>Revision No.</b> 11	<b>Date</b> 01/01/07	<b>Approved</b> James A. Bertsch	<b>Chemical Safety Coordinator</b> JAB
------------------------	----------------------	----------------------------------	--

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. \* Hazardous Materials Industrial Standards. Printed on recycled paper.