



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.
Avon, New York 14414
(716) 226-6177

MSDS No. SS 1085
Effective Date May 17, 1999

SECTION V HEALTH HAZARD DATA

SS 1085

Threshold Limited Value

None established. TLV: 10 mg/m³ (total dust) or 5 mg/m³ (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.

Emergency and First Aid Procedures

Remove any individual who show allergic reaction promptly from the exposure area where upon symptoms should disappear. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get immediate medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **INGESTION:** If swallowed, if conscious, give two or more glasses of water to drink. Induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Heat, sparks, open flames and other heat sources.
	Stable	X	

Incompatibility (Materials to Avoid)	Reacts violently with strong oxidizing agents. Corrosive to copper and copper alloys. Damp sulfur will corrode steel.
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Hazardous Decomposition Products	Sulfur dioxide.
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Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

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. Sweep up and place in a suitable container for reclamation or disposal in an approved facility.
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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.
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Dispose of in accordance with federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	None should be needed in normal laboratory handling. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.
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Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses/goggles.
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Other Protective Equipment	Smock, apron, eye wash station, vent hood, fire extinguisher.
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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.
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Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals.
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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.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 9	Date 5/17/99	Approved Michael Raszeja	Chemical Safety Coordinator MR
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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.

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	SULFUR: ROLL, SUBLIMED PWD., PRECIPITATED
Chemical Synonyms	Sulfur Flower, Sulfur Flour, Roll
Formula	S
Unit Size	up to 2.5 Kg.
C.A.S. No.	7704-34-9

CHEMTREC
800-424-9300
Day 716-226-6177

NFPA HAZARD RATING
LEAST SLIGHT MODERATE HIGH EXTREME
0 1 2 3 4

HMIS *
Health 1
Fire 1
Reactivity 0

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Sulfur: Roll-Broken Lumps;	100%	See Section V.
Sublimed Powder (Flower), Precipitated Powder (Flour)	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 ₂ 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 ()	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

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

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, 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, NA 1350, PG III

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