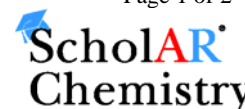


MSDS # 736.00

# Sulfur



## Section 1: Product and Company Identification

### Sulfur

**Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.

#### 24 Hour Emergency Information Telephone Numbers

**CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

## Section 2: Hazards Identification

*Bright yellow powder, crystals, rolls, broken lumps; slight odor of rotten eggs.***CAUTION!** Combustible solid, flammable if finely powdered, keep away from all ignition sources.

Target organs: None known.

#### HMIS (0 to 4)

Health	0
Fire Hazard	2
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

## Section 3: Composition / Information on Ingredients

Sulfur (7704-34-9), &gt;99%

## Section 4: First Aid Measures

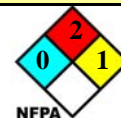
*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 tbsp of activated charcoal mixed with 8 oz water.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.

## Section 5: Fire Fighting Measures

IIIB Flammable solid. When heated to decomposition, emits acrid fumes of sulfur dioxide.

**Protective equipment and precautions for firefighters:** Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.



## Section 6: Accidental Release Measures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Sweep up spill and place material in a dry container for disposal. See Section 13 for disposal information.

## Section 7: Handling and Storage

**Red****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Flammable Area [Red Storage] with other flammable materials and away from any strong oxidizers. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.

## Section 8: Exposure Controls / Personal Protection

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Sulfur: OSHA PEL: N/A and ACGIH TLV: N/A, STEL: N/A.

**Section 9: Physical and Chemical Properties**

<b>Molecular formula</b>	S.	<b>Appearance</b>	Yellow powder, crystals, or lumps.
<b>Molecular weight</b>	32.06.	<b>Odor</b>	slight odor of rotten eggs.
<b>Specific Gravity</b>	2.07 g/mL @ 20°C.	<b>Odor Threshold</b>	N/A.
<b>Vapor Density (air=1)</b>	N/A.	<b>Solubility</b>	Alcohol, organic solvents.
<b>Melting Point</b>	114°C.	<b>Evaporation rate</b>	N/A. ( <i>Butyl acetate</i> = 1).
<b>Boiling Point/Range</b>	445°C.	<b>Partition Coefficient</b>	N/A. ( <i>log P<sub>OW</sub></i> ).
<b>Vapor Pressure (20°C)</b>	N/A.	<b>pH</b>	N/A.
<b>Flash Point:</b>	207°C (405°F).	<b>LEL</b>	3.3.
<b>Autoignition Temp.:</b>	232°C (450°F).	<b>UEL</b>	N/A.

N/A = Not available or applicable

**Section 10: Stability and Reactivity**

Avoid heat and ignition sources. Note: The melting point of this material is lower than the flash point. Use caution when heating.

**Stability:** Stable under normal conditions of use.

**Incompatibility:** Strong oxidizing agents, corrosive to copper and steel.

**Shelf life:** Indefinite if stored properly.

**Section 11: Toxicology Information**

**Acute Symptoms/Signs of exposure:** *Eyes:* Stinging pain, burns, watering of eyes, inflammation of eyelids and conjunctivitis.

Avoid looking at burning magnesium. *Skin:* Irritation, redness, burns. Powdered metal ignites readily on skin causing burns.

*Ingestion:* Nausea, vomiting and headache. *Inhalation:* Rapid irregular breathing, headache, burns to mucous membranes.

**Chronic Effects:** Repeated/prolonged skin contact may cause dryness or rashes.

**Sensitization:** none expected

*Sulfur:* LD50 [oral, rat]; 5,000 mg/kg; LC50 [rat]; Not Available; LD50 Dermal [rabbit]; Not Available

*Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.*

**Section 12: Ecological Information**

**Ecotoxicity (aquatic and terrestrial):** Environmental hazard data not available.

**Section 13: Disposal Considerations**

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

**Section 14: Transport Information**

<b>DOT Shipping Name:</b>	Sulfur.	<b>Canada TDG:</b>	Sulfur.
<b>DOT Hazard Class:</b>	4.1, pg III.	<b>Hazard Class:</b>	4.1, pg III.
<b>Identification Number:</b>	UN1350.	<b>UN Number:</b>	UN1350.

**Section 15: Regulatory Information**

**EINECS:** Listed (231-722-6) .

**WHMIS Canada:** B4: Flammable solid.

**TSCA:** All components are listed or are exempt.

**California Proposition 65:** Not listed.

*The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.*

**Section 16: Other Information**

**Current Issue Date:** January 23, 2009

*Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.*