



Centre Anti-Poison pour le Québec: (800) 463-5060

Tél. (Qc): (418) 660-8666 / 800-890-8666


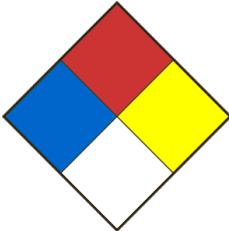
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## SAFETY DATA SHEET

### SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier SULFUR (SULFUR FLOWERS)		Product Use Laboratory use	
Chemical formula S		Product code SP-0120	Molar weight 32,06
Chemical name / Commercial name / Synonymous SULFUR, SULPHUR, SOUFRE EN FLEUR, SULFUR FLOWER, BRIMSTONE, SOUFRE PRÉCIPITÉ			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS 9/10/2019	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

## SECTION 02 - HAZARDS IDENTIFICATION

<b>Classification WHIMS / GHS</b>	Flammable solids category 1 Serious eye damage/eye irritation - Serious eye damage category 1 Skin corrosion/irritation - Skin corrosion category 1
<b>Signal Word</b>	DANGER
<b>Hazards statements (H)</b>	H228 Flammable solid. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.
<b>Precautionary statements (P)</b>	P264 Wash the areas of the body that have been in contact with the product after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. P321 Specific treatment (see section 4 of the SDS and on this label). P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting equipment. P260 Do not breathe dust / fume / gas / mist / vapours / spray. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P363 Wash contaminated clothing before reuse. P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction. P405 Store locked up. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.
<b>PICTOGRAMS</b>	
<b>Other dangers</b>	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	<b>Health</b> 1 <b>Fire</b> 1 <b>Reactivity</b> 1 <b>Special danger</b>

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Soufre	7704-34-9	<=100

## SECTION 04 - FIRST AID MEASURES

<b>Eye contact</b>	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
<b>Skin contact</b>	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
<b>Inhalation</b>	If breathing is difficult, give oxygen. If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>Ingestion</b>	If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Consult a physician.
<b>Most important symptoms and effects (acute and delayed)</b>	Ref. section 11.
<b>Immediate medical attention and special treatment, if necessary</b>	In case of medical consultation, keep this sheet available.
<b>General advice</b>	Show this safety data sheet to the doctor in attendance.

## SECTION 05 - FIREFIGHTING MEASURES

<b>Flammability</b>	Yes
<b>Ignition conditions</b>	Flame directly on the product or intense heat. Flammable in the presence of a source of ignition, through friction or retained heat. Keep away from heat/sparks/open flame/hot surface. No smoking.
<b>Suitable extinguishing media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable extinguishing media</b>	Data not available.
<b>Hazardous combustion / decomposition products</b>	Hazardous decomposition products formed under fire conditions. - Sulphur oxides Hydrogène sulfide.
<b>Special fire and explosion hazards</b>	Solid fuel. Moderate risks of fire in the presence of heat, flames or by chemical reaction in contact with oxidizing agents. Dusts with high concentrations in the air can ignite spontaneously above 261 °C. Sulfur powder (especially if heated) can react with most metals with the exception of iodine, iridium, gold, platinum and tellurium. Violent reactions in contact with the following products: ammonia, nitrate and ammonium perchlorate, silver nitrate, calcium hypochlorite, carbides, chromium trioxide, copper + chlorates, halogens, hydrocarbons, nitrate and mercuric oxide, lead dioxide and potassium permanganate. May react violently with incompatible products (Ref Section 10).
<b>Special protective equipment and precautions for firefighters</b>	Wear self contained breathing apparatus for fire fighting if necessary.

## SECTION 06 - ACCIDENTAL RELEASE MEASURES

<b>Methods and materials for containment and cleaning up / Personnel precautions, protective equipment</b>	Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid dust formation. Use personal protective equipment. Pick up with a shovel or broom, taking care not to scatter dust. Clean and rinse with water. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.
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## SECTION 07 - HANDLING AND STORAGE

<b>Conditions for safe storage</b>	Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, and incompatible products. Keep container tightly closed in a dry and well-ventilated place.
<b>Methods of handling</b>	Always open containers slowly to allow any excess pressure to vent. Avoid formation of dust and aerosols. Avoid ingestion and inhalation. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

## SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Sulfur	7704-34-9	TWA	10 mg/m <sup>3</sup>	Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)

<b>Data source</b>	Sigma-Aldrich (Millipore Sigma)
<b>Ventilation</b>	Fan.
<b>Respiratory</b>	If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
<b>Gloves</b>	Handle with gloves.
<b>Eyes</b>	Safety goggles with safety shutters.
<b>Shoes</b>	Safety shoes.
<b>Clothing</b>	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<b>Engineering control</b>	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

## SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	Solid.
<b>Appearance</b>	Jaune pâle.
<b>Odour</b>	Légère.
<b>Odour threshold</b>	Data not available
<b>pH</b>	Donnée non-disponible.
<b>Melting point / Freezing point</b>	112-120°C
<b>Initial boiling point</b>	444.6°C
<b>Boiling range</b>	Data not available
<b>Flash point</b>	207°C
<b>Evaporation rate</b>	Data not available
<b>Flammability</b>	Yes
<b>Lower flammable / Explosive limit</b>	0.17% v/v
<b>Upper flammable / Explosive limit</b>	6.83% v/v
<b>Vapour pressure</b>	Data not available
<b>Vapour density</b>	Data not available
<b>Relative density</b>	2g/cm <sup>3</sup>
<b>Solubility</b>	Insoluble dans l'eau. Soluble dans le benzène, le disulfure de carbone et le toluène.
<b>Partition coefficient water/n-octanol</b>	Data not available
<b>Auto-ignition temperature</b>	232°C
<b>Decomposition temperature</b>	Data not available
<b>Viscosity</b>	Data not available

## SECTION 10 - STABILITY AND REACTIVITY

<b>Reactivity</b>	Non-reactive under normal conditions.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	May react violently with incompatible substances. Keep away from open flames, hot surfaces and sources of ignition.
<b>Conditions of instability (Including sensitivity to shock / static discharge / vibration)</b>	Avoid moisture. Heat, flames and sparks.
<b>Conditions of instability (Including sensitivity to shock / static discharge / vibration)</b>	Avoid contact with incompatible materials and extreme temperatures.
<b>Incompatible material</b>	Strong oxidizing agents. Bases, amines. Reducing agent. Halocarbons. Halogens. Copper. Metal oxides. Carbon black, coal. Steel.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions. Toxic vapors of sulfur oxides. Hydrogen sulfide

## SECTION 11 - TOXICOLOGICAL INFORMATION

### SULFUR (SULFUR FLOWERS)

<b>Routes of exposure</b>	Ingestion, inhalation, skin and eyes.
<b>Acute exposition effects / symptoms:</b>	By exposure route below.
<b>- Eyes</b>	Irritation and may cause inflammation of the conjunctiva.
<b>- Skin</b>	Irritation and dermatitis. Prolonged contact may result in an allergic reaction characterized mainly by erythematous lesions.
<b>- Inhalation</b>	Irritation of the mucous membranes and respiratory tract. Spasms, cough, dyspnea, headache, dizziness, salivation, convulsions, nausea and vomiting.
<b>Acute toxicity (Ingestion)</b>	Irritation of the mucous membranes. Gastrointestinal disorders, cramps, diarrhea, headache, dizziness, sweating, salivation, convulsions, nausea and vomiting.
<b>Chronic exposure effects / symptoms</b>	Burning sensation, dermatitis, conjunctivitis, skin allergies, nervous disorders, chest pain, cough, dyspnoea, laryngitis, headache, dizziness, confusion, irritability, fatigue, fever, metallic taste in the mouth, salivation, nausea and vomiting .
<b>DL50 (specify species and route of entry)</b>	LD50 Oral - Rat - 5000 mg/kg. LD50 Dermal - Rabbit - > 2,000 mg/kg.
<b>CL50 (specify species and route of entry)</b>	LC50 Inhalation - rat - 4 h - > 9,23 mg/L.

## SECTION 12 - ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Acute fish toxicity: LC50 - Oncorhynchus mykiss (rainbow trout) - 180 mg/L - 96h. LC50 - Other fish: 866 mg/L - 96h. Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 5000 mg/L - 48h.
<b>Persistence and degradability</b>	Data not available.
<b>Bioaccumulative potential</b>	Data not available.
<b>Mobility in soil</b>	Data not available.
<b>Other adverse effects</b>	Data not available.

## SECTION 13 - DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method</b>	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
<b>Contaminated Packaging</b>	Dispose of as unused product.

## SECTION 14 - TRANSPORT INFORMATION

<b>UN Number</b>	1350
<b>UN Proper shipping name</b>	SOUFRE
<b>Transport hazard class(es)</b>	4.1 Flammable solids
<b>Packing group</b>	III
<b>Limited quantity index</b>	5kg
<b>ERAP Index</b>	-
<b>Special precautions</b>	-

## SECTION 15 - REGULATORY INFORMATION

<b>WHIMS CANADA</b>	Flammable solids category 1 Serious eye damage/eye irritation - Serious eye damage category 1 Skin corrosion/irritation - Skin corrosion category 1
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## **SECTION 16 - OTHER INFORMATION**

### **Further information**

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

**Last Update: 9/10/2019**