

THAT Flowable Sulfur

Material Safety Data Sheet (rev.10/16)

**SECTION I**
**PRODUCT IDENTIFICATION**
**HMIS HAZARD RATINGS**

HEALTH HAZARD 1      FIRE HAZARD 0      REACTIVITY 0  
 Based on the National Fire Protection Association rating system  
 (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = High; 4 = Severe)

**SARA/ TITLE III HAZARD CATEGORIES**

Immediate (ACUTE) Health: No      Reactive Hazard: No  
 Delayed (Chronic) Health: Yes      Fire Hazard: No      Sudden Release of Pressure: Yes

Company Name:	STOLLER USA, INC.
Address:	4001 W. Sam Houston Parkway, N., Suite 100 Houston, Texas 77043-1226 U.S.A.
Emergency Phone Number:	CHEMTREC: 1 (800) 424-9300
Phone Number for Information:	1 (713) 461-1493
Chemical Family:	Flowable Sulfur
Chemical Name & Synonyms:	Mixture
Formula:	S8 (Rhombic or monoclinic)
Trade name & Synonyms:	<b>THAT Flowable Sulfur (52% S)</b>

**SECTION II**
**COMPOSITION/ INFORMATION ON INGREDIENTS**

INGREDIENTS:	CAS#	Approx. %	TLV
SULFUR	7704-34-9	52%	Not established

**SECTION III**
**HAZARD IDENTIFICATION**
**A. EXPOSURE LIMITS:**

1. OSHA Permissible Exposure Limit (PEL): N/ E
2. Threshold Limit Value (TLV): N/ E

**B. CARCINOGEN OR POTENTIAL CARCINOGEN:**
**C. EFFECTS OF OVEREXPOSURE:**
**1. ACUTE:**

**EYES:** May cause irritation

**SKIN:** May be irritating. No adverse effects.

**INHALATION:** Prolonged contact may cause irritation of nose, throat and upper respiratory tract.

**INGESTION:** Gastric distress, nausea, diarrhea.

**2. CHRONIC:** Irritation of mucous membranes.

**D. ADDITIONAL INFORMATION:** Acute Toxicity Effects Data

Eye (human) 8 ppm - irritation

Oral (LD<sub>50</sub>) >5050 mg/ kg

Skin effects (rabbit): slightly irritating.

Eye (rabbit): minimal irritation in non- washed eyes.

Inhalation @90% (LC<sub>50</sub>) (rats): >5.49 mg/ ltr air concentration

**SECTION IV**
**FIRST- AID MEASURES**
**A. EMERGENCY FIRST AID PROCEDURES:**

**EYES:** Rinse thoroughly with running water for 15 minutes. Seek medical attention, preferably an ophthalmologist.

**SKIN:** Wash with soap and water. Rinse thoroughly. Seek medical attention if inflammation occurs. Do not attempt to neutralize with chemicals.

**INHALATION:** Remove from exposure area if irritation exists from mists, or in the event of massive inhalation. Seek medical help.

**INGESTION:** Drink at least two glasses of water. Give one tablespoon of Syrup of Ipecac to induce vomiting. If vomiting occurs, give fluids again. Get medical attention.

**B. ANIMAL TOXICITY DATA:**

Oral LD<sub>50</sub> (rat): >5050 mg/ kg

Inhalation LC<sub>50</sub> (rat): >5.49 mg/ ltr air concentration

**C. ADDITIONAL INFORMATION:** Acute Toxicity Effects Data

Eye (human) 8 ppm - irritation

Oral (LD<sub>50</sub>) >5050 mg/ kg

Skin effects (rabbit): slightly irritating.

Eye (rabbit): minimal irritation in non- washed eyes.

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**SECTION V****FIRE AND EXPLOSION DATA**

<b>FLASH POINT:</b>	> 405°F (>207.2°C)		
<b>FLAMMABLE LIMITS:</b>	N/ A	<b>LEL: N/ A</b>	<b>UEL: N/ A</b>
<b>EXTINGUISHER MEDIA:</b>	Water fog, foam, carbon dioxide (CO <sub>2</sub> ), dry chemicals. Do not use a direct water stream.		
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	Firefighters should wear butyl rubber boots and clothing. Wear self- contained breathing apparatus.		
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	Toxic fumes may be generated at elevated temperatures (SO <sub>2</sub> , H <sub>2</sub> S). Flowable sulfur is not a fire or explosion hazard; however, flowable sulfur that is allowed to dry and is then pulverized should be treated as sulfur dust. Sulfur dust suspended in air ignites easily and can cause an explosion in confined areas.		

**SECTION VI****ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED:** Wear protective clothing during clean up. It is necessary to contain spill into the smallest area possible by diking, etc. Replace liquid into plastic container by scooping with plastic or aluminum scoop. If liquid is absorbed onto dry carrier such as soil or absorbent material, then place this material in a dry waste container for later disposal in an approved facility. Rinse spill site after clean up is complete.

**SECTION VII****HANDLING AND STORAGE**

Keep containers closed and away from chlorates, nitrates and other oxidizing agents. Store only in shipping container: Jugs and Pails (Polyethylene), Drums (Polyethylene) and Mini Bulk tanks (Polyethylene). Bulk material should be stored in Polyethylene Tanks with PVC fittings.

**SECTION VIII****SPECIAL PROTECTION / CONTROL MEASURES**

**RESPIRATORY PROTECTION:** As required by conditions. Use an OSHA or NIOSH approved respirator if required.  
**VENTILATION:** General ventilation is usually adequate.  
**LOCAL EXHAUST:** Should be used if needed for safe, comfortable working conditions.  
**SPECIAL VENTILATION:** Work outdoors in the open or well ventilated area with this product.  
**PROTECTIVE GLOVES:** Use rubber or latex gloves.  
**EYE PROTECTION:** Use splash proof eye goggles. In emergency situations it is best to wear a full face shield. Eye wash should be available.  
**OTHER SPECIAL CLOTHING/ EQUIPMENT:** Wear clothing that covers the exposed skin area as much as possible.  
**WORK/ HYGIENIC PRACTICES:** Do not smoke during handling. Wash thoroughly after handling. Also wash clothing

**SECTION IX****PHYSICAL AND CHEMICAL CHARACTERISTICS**

<b>BOILING POINT:</b>	Not established	<b>VAPOR PRESSURE (mm/ Hg):</b>	1.06
<b>MELTING POINT:</b>	N/ A	<b>VAPOR DENSITY (air = 1):</b>	>1
<b>SPECIFIC GRAVITY:</b>	1.38	<b>REACTIVITY IN WATER:</b>	N/ E
<b>SOLUBILITY IN WATER:</b>	Miscible but insoluble.	<b>EVAPORATION RATE:</b>	<1
<b>APPEARANCE AND ODOR:</b>	Yellow creamy liquid, slight rotten egg odor.		
<b>PERCENT VOLATILE BY VOLUME:</b>	N/ A		
<b>Particle Size:</b>	1-2 micron		

**SECTION X****PHYSICAL HAZARDS (REACTIVITY DATA)**

<b>STABILITY:</b>	Stable: Yes	Unstable:
<b>CONDITIONS TO AVOID:</b>	N/ A	
<b>INCOMPATIBILITY, MATERIALS TO AVOID:</b>	Oxidizers, Ammonium Nitrate, Chlorates.	
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Sulfur dioxide (SO <sub>2</sub> ) and Hydrogen sulfide (H <sub>2</sub> S).	
<b>HAZARDOUS POLYMERIZATION:</b>	None	
<b>MAY OCCUR:</b>	<b>WILL NOT OCCUR: X</b>	

**SECTION XI****TOXICOLOGICAL INFORMATION**

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- A. **TOXICITY DATA:**
- B. **CARCINOGENICITY:**
- C. **MUTAGENICITY:**
- D. **REPRODUCTIVE TOXICITY:**

**SECTION XII****ENVIRONMENTAL EFFECTS DATA**

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The available data on this plant nutrient material does not indicate any undue hazard to the environment under anticipated use and storage. Any waste due to spillage or leakage should be contained and disposed of in compliance with the law (see above under Waste Disposal Methods). Due to its nutrient value, may contribute to eutrophication in bodies of water.

**SECTION XIII****DISPOSAL CONSIDERATIONS**

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**WASTE DISPOSAL METHODS:** Dispose of in compliance with all federal, state and local laws concerning health and environment.

**SECTION XIV****TRANSPORTATION DATA**

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**PROPER SHIPPING NAME:** N/ A (THAT® Flowable Sulfur)

**DOT HAZARD CLASS:** NON- REGULATED

**PLACARD:** NOT REQUIRED

**IATA Proper Shipping Name:** N/ A

**IMO Proper Shipping Name:** N/ A

**DOT Hazardous Material:** NON- REGULATED