

MATERIAL SAFETY DATA SHEET**THIOLUX Dry Flowable Micronized Sulfur**

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

SECTION I - IDENTIFICATION OF PRODUCT

Formulated By/For:
Platte Chemical Co.
419 18th Street
Greeley, CO 80631

EMERGENCY TELEPHONE NO.:
CHEMTREC (800) 424-9300 (24 Hours)

TRADE NAME AND SYNONYMS: THIOLUX Dry Flowable Micronized Sulfur

CHEMICAL NAME AND SYNONYMS: Sulfur

CHEMICAL FAMILY: Non-metallic Sulfur

CHEMICAL CLASS: Fungicide

EPA REGISTRATION NUMBER: 100-835-34704

SECTION II - PRODUCT COMPONENTS

COMPONENT:	%	THRESHOLD LIMIT VALUE (Units):
Sulfur (CAS: 7704-34-9)	80	None established
Inert Ingredients	20	

SECTION III - PHYSICAL INFORMATION

APPEARANCE AND ODOR: Yellow-brown powder, with irritating pungent odor of sulfur dioxide

SOLUBILITY IN WATER: Disperses with minimal agitation

SPECIFIC GRAVITY (WATER = 1): 800 @ 25°C

BULK DENSITY: 800-900 g/l

VAPOR PRESSURE (MM OF MERCURY): <1 @ 184°C

SECTION IV - FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (SPECIFY METHOD - °F): Not applicable

FLAMMABLE LIMITS (PERCENT BY VOLUME): Lower: 35 g/m³ Upper: 1400 g/m³ (with greater than 17% oxygen)

FIRE EXTINGUISHING MEDIA: Dry chemical, foam or carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective clothing

UNUSUAL FIRE AND EXPLOSION HAZARDS: Sulfur dust in air can be ignited and explode.

NFPA HAZARD RATING:

0 Least		
1 Slight	2	Health
2 Moderate	1	Flammability
3 High	0	Reactivity
4 Severe		

SECTION V - REACTIVITY INFORMATION

STABILITY: Stable **CONDITIONS TO AVOID:** Excessive heat, sulfur dust in air can be ignited and explode.

INCOMPATIBILITY (Avoid contact with): Dust conditions in air

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of sulfur and hydrogen sulfide may be formed in a fire situation.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VI - HEALTH INFORMATION

TOXICOLOGICAL TEST DATA: (Source of Information - Registry of Toxic Effects of Chemical Substances)

Acute Oral: LD₅₀ (RAT) > 5000 mg/kg **Acute Dermal:** LD₅₀ (RABBIT) > 2000 mg/kg
Acute Inhalation: LC₅₀ (RAT) 9.23 mg/l (4 HR)
Skin Irritation: Practically non-irritating **Eye Irritation:** Practically non-irritating
Sensitizer: Not a sensitizer

CHRONIC TOXICITY [Specific to Active Ingredient(s)]

Chronic exposure to elemental sulfur at low levels is generally recognized as safe. Epidemiological studies show that mine workers exposed to sulfur dust and sulfur dioxide throughout their lives often had eye and respiratory disturbances, chronic bronchitis and chronic sinus effects. Subchronic inhalation exposure to sulfur in rats showed body weight depression, decreased blood sulfhydryl contents, decreased serum peroxidase levels, and increased serum albumin. No significant changes in the blood morphology, blood sugar level, or behavioral changes were observed in these animals. In humans, chronic inhalation exposure to sulfur is well documented in mine and refinery workers and chronic bronchitis is generally found in those individuals in addition to chronic sinusal effects and respiratory disturbances. Chronic dermal application of elemental sulfur for 1 year in mice (50 mg/twice weekly) indicates that elemental sulfur is not carcinogenic by this route of application.

MUTAGENICITY [Specific to Active Ingredient(s)]

Sulfur has been shown to be non-mutagenic in microorganisms when incubated without a metabolic activating system. U.S. EPA has evaluated this product's toxicity as part of the U.S. registration process. EPA requires extensive toxicity tests be performed before any crop protection chemical is approved for use. Based on their review of test results, they have determined that no significant risk to users, the public, or the environment exists when this product is used as indicated on the product label.

EFFECTS OF OVEREXPOSURE: Acute toxic effects may include nausea, vomiting, headache, diarrhea upon ingestion of large quantities, or dermal irritation upon exposure to skin.

EMERGENCY AND FIRST AID PROCEDURES: Call a physician immediately in all cases of suspected poisoning.

Eye: Flush eyes thoroughly with water for 15 minutes. See a doctor if irritation persists.
Skin: Wash thoroughly with soap and water. Remove contaminated clothing and footwear. See a doctor if irritation persists.
Ingestion: Induce vomiting by touching back of throat with finger or by giving an ounce of syrup of ipecac with two glasses of water. Give half this to a child. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.
Inhalation: Remove person to fresh air.

NOTE TO PHYSICIAN: Treat symptomatically.

PRE-EXISTING DISORDER: Persons with chronic respiratory problem may have problem with material.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Sweep up spilled material carefully and wear dust mask and protective eyewear. Scrub area with soap and water; allow to dry or soak on absorbent material, then rinse with water.

Absorbents: Clay granules, sawdust, dirt or equivalent if in liquid solution.

WASTE DISPOSAL METHOD:

Check local, state and federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING:

Eye Protection (Type): Safety goggles recommended.
Gloves (Type): Impermeable gloves
Respiratory Protection: A MSHA/NIOSH approved respirator for pesticides with pre-filter for dust is recommended if conditions require.
Other Clothing: Long sleeved shirt, long pants, shoes and socks. Launder before reuse.

VENTILATION:

Local Exhaust: Not normally required
Mechanical (General): If dusty conditions - provide if indoors
Special: Not normally required
Other: Work in well ventilated area

EPA HANDLER REQUIREMENTS

Worker Protection Standard 40 CFR 170

Note, the following PPE requirements address handler/applicator requirements under FIFRA and may differ from what is felt necessary to address a clean up, needs during formulation/manufacturing or other times of involvement with the product.

Personal Protective Equipment:

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene or viton and shoes plus socks.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

SECTION IX - SPECIAL PRECAUTIONS

HANDLING AND STORAGE:

Avoid contact with skin, eyes and clothing. Keep out of contact with children and pets. Handle as for other pesticides. Real label instructions. Store in cool, dry place. Do not store near food, feed or within reach of children. Do not contaminate water by storage.

SECTION X - REGULATORY INFORMATION

SARA TITLE III HAZARD CATEGORY:

IMMEDIATE Y
DELAYED N

FIRE N
REACTIVE N

SUDDEN RELEASE
OF PRESSURE N

SUBSTANCES REGULATED UNDER SARA, TITLE III, SECT. 313: None

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SUPERSEDES: NEW

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