

**MATERIAL SAFETY DATA SHEET**  
(Complies with OSHA CFR 1910.1200, ANSI Z 400.1-1993)

**SECTION 1: Chemical Product & Company Identification**

**Product Name(s):** Lilly Miller Systemic Rose, Shrub & Flower Care 8-12-4

**EPA Number:** 192-211-33116

**Registrant Name & Address:** Lilly Miller Brands, PO Box 2289, Clackamas, Oregon 97015

**Telephone Contact Number & Hours of Operation:** 866-866-0301, 8 – 5 pm Pacific time

**SECTION 2: Composition/Information on Ingredients**

Hazardous Ingredients *	% by weight	CAS No.	OSHA PEL	OSHA Ceiling	ACGIH TLV
O,S-Dimethyl acetylphosphoroamidothioate (Acephate)	1.5	30560-19-1	†		
Propylene Glycol	<4	57-55-6	†		
Diatomaceous Earth	<43	60676-86-0	†		3 mg/m <sup>3</sup>
Ammonium Phosphate	<10	7722-76-1	†		
Diammonium Phosphate	<10	7783-28-0	†		
Ammonium Sulfate	<10	7783-20-2	†		
Potassium Sulfate	<16	7778-80-5	†		
Iron Oxide	<3	1309-37-1	10 mg/m <sup>3</sup>		5 mg/m <sup>3</sup>
Magnesium Oxide	<3	1309-48-4	†		
Magnesium Sulfate	<1	7487-88-9	†		
Sodium Borate	<1	1303-96-4	†		
Manganese Oxide	<1	1317-35-7	†	5 mg/m <sup>3</sup>	0.2 mg/m <sup>3</sup>
Manganese Sulfate	<1	7785-87-7	†	5 mg/m <sup>3</sup>	0.2 mg/m <sup>3</sup>
Zinc Oxide	<1	1314-13-2	†		10 mg/m <sup>3</sup>
Zinc Sulfate	<1	7733-02-0	†		
Gypsum	<5	13397-24-5	†		
Limestone	<1	1317-65-3	†		10 mg/m <sup>3</sup>
Silica	<0.1	14808-60-7	**		0.05 mg/m <sup>3</sup>

\* all ingredients in quantities > 1.0 % (0.1 % for carcinogens or teratogens) that are **potentially** hazardous per OSHA definitions

\*\* 10 mg/m<sup>3</sup> ÷ (%SiO<sub>2</sub>+2)

† 5 mg/m<sup>3</sup> as respirable dust

**SECTION 3: Hazards Identification**

**EMERGENCY OVERVIEW**

**Physical description:** tan or gray granular solid

**Odor:** sulfur-like

**Potential Health Effects:** This material may be irritating to the eyes, to the respiratory tract and slightly irritating to the skin. May be harmful if absorbed through skin. Harmful if ingested. Causes reversible cholinesterase inhibition. Repeated overexposure may cause more severe cholinesterase inhibition with more pronounced signs and symptoms. Prolonged contact may cause nervous system damage. Contains probable or suspected human carcinogens. May aggravate pre-existing kidney disorders. Chronic exposure to dust may lead to silicosis. Personnel responding to a spill of this material **MUST** wear protective clothing to avoid skin contact or inhalation of particles to prevent toxic effects.

**SECTION 4: First Aid Measures**

**Skin Contact:** Remove contaminated clothing. Wash affected area with soap and water. If irritation appears, get medical attention.

**Ingestion:** If swallowed, contact physician or poison control center immediately. Never give liquids to an unconscious person.

**Eye Contact:** Immediately flush eyes with water for at least 15 minutes. Seek medical attention if irritation persists.

**Inhalation:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**NOTES TO PHYSICIAN:** If symptoms of cholinesterase inhibition are present, atropine sulfate by injection is antidotal. 2-PAM is also antidotal and may be administered in conjunction with atropine. If ingested, monitor for acidosis and central nervous system changes. Persons with previous kidney dysfunction may require special treatment.

## **SECTION 5: Fire Fighting Measures**

**Flash point:** N/A

**Explosive limits (%):** N/A

**Extinguishing media:** Water, dry chemical or foam.

**Unusual fire/explosion hazards:** May explode if mixed with oxidizers. Ammonia gas may be released in a fire.

**Protective Equipment:** Use NIOSH/MSHA approved SCBA.

**Thermal decomposition:** Oxides of sulfur and nitrogen, phosphorus-containing compounds, ammonia, and other unknown hazardous materials may be formed in a fire situation. Incomplete combustion may lead to formation of carbon monoxide and/or other asphyxiants.

## **SECTION 6: Accidental Release Measures**

**Spills:** Sweep up material carefully to avoid excessive dust. Reuse material if possible. If original containers are not available and material is not reusable, place in metal drum and seal. Dispose of in accordance with instructions in Section 13.

## **SECTION 7: Handling & Storage**

**Storage:** Store in closed, upright containers in a cool, dry, well-ventilated area out of reach of children. Do not contaminate water, food or feed by storage or disposal. Do not reuse container.

**Handling:** Avoid breathing vapor or dust. Avoid contact with skin or clothing. Remove pets before applying. Keep away from surface waters.

## **SECTION 8: Exposure Controls & Personal Protective Equipment**

**Skin:** Protective gloves required; applicators should wear long pants and long-sleeved shirt. Wash outside of gloves with soap and water before removing. Wash hands before eating, drinking, chewing gum, using tobacco, applying cosmetics, or using the toilet. Remove clothing immediately if pesticide gets inside of clothing. Wash thoroughly and put on clean clothing.

**Eye Protection:** Goggles or faceshield recommended

**Respiratory:** When applied in well ventilated area, respiratory protection should not be needed. Use air monitoring to determine required level of protection. Use NIOSH approved respirator with organic vapor cartridges with N/R/P100 particulate filters, or mechanical ventilation, if necessary.

## **SECTION 9: Physical & Chemical Parameters**

**Appearance:** granular solid

**Solubility in water:** N/A

**Odor:** sulfur-like

**Density at 20°C:** N/A

**Boiling point:** N/A

**Melting point:** N/A

**Specific gravity:** 57-59 lbs/ft<sup>3</sup>

**Vapor pressure:** N/A

**pH:** N/A

## **SECTION 10: Stability & Reactivity**

**Stability:** Stable

**Incompatibility:** Avoid contamination with water, acids, alkalis, or oxidizers.

**Conditions to avoid:** excessive heat or moisture

**Hazardous Decomposition Products:** Ammonia, inorganic oxides, aldehydes or lactic, pyruvic or acetic acids may form

**Hazardous polymerization:** will not occur

## **SECTION 11: Toxicological Information**

Note to Consumers: Information provided in this section is oriented to medical and public health professionals involved in the assessment and treatment of excessive and/or accidental exposures.

Symptoms of overexposure may include: headache, blurred vision, nervousness, weakness, nausea, cramps, salivation, respiratory difficulty, muscle twitches, convulsions, loss of reflexes. Prolonged contact may cause nervous system damage. May aggravate pre-existing kidney disorders.

Oral Rat LD<sub>50</sub> = >5,000 mg/kg    Dermal Rat LD<sub>50</sub> = >5,000 mg/kg    Inhalation Rat LC<sub>50</sub> = >2.02 mg/liter of air

Not a contact sensitizer, non-irritating to skin, minimally irritating to eyes.

**Carcinogens:** May contain crystalline silica, a suspected human carcinogen.

## **SECTION 12: Ecological Information**

**Ecotoxicity:** Do not apply directly to water; do not contaminate water by drift, runoff, or cleaning of equipment or disposal of washwaters.

**Environmental Fate:** No data available.

## **SECTION 13: Disposal Considerations**

This material (as packaged) is not considered a hazardous waste. Be aware that the waste owner has responsibility for final disposal. Regulations may also apply to empty containers, liners or rinsate. Laws may change or be reinterpreted; state and local regulations may be different from federal regulations. This information applies to materials as manufactured; contamination or processing may change waste characteristics and requirements.

## **SECTION 14: Transport Information**

**DOT Hazard Description:** N/A

## **SECTION 15: Regulatory Information**

**CERCLA RQ:** None

**SARA TPQ:** None

**Individual States:** States such as Pennsylvania, New Jersey, California, Vermont, Massachusetts and Rhode Island may have components of this product listed; consult specific state regulatory requirements for additional information.

## **SECTION 16: Other Information**

For additional information, refer to the American Conference of Governmental Industrial Hygienists (ACGIH) documentation of TLV's (Threshold Limit Values) for individual components and the DOT Emergency Response Guidebook.

**This information is provided in good faith, but without express or implied warranty.**