

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier**Product Description:** Microthiol® Disperss®**Other means of identification****Product code** 12-373**Registration number(s)** 70506-187**Recommended use of the chemical and restrictions on use****Recommended use** Micronized Wettable Sulfur.**Uses advised against** Activities contrary to label recommendation**Details of the Supplier of the Safety Data Sheet****Supplier Address**UPL NA Inc.
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406**Emergency telephone number****Company Phone Number** 1-800-438-6071**Emergency telephone number** Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887Medical: Rocky Mountain Poison Control Center
(866) 673-6671 (24hrs)

2. Hazards Identification

Classification**OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 2
Skin Corrosion/Irritation	Category 2

Label elements**EMERGENCY OVERVIEW****DANGER****Hazard Statements**

HARMFUL IF SWALLOWED

Harmful in contact with skin

Fatal if inhaled

CAUSES SKIN IRRITATION



Appearance amber**Physical state** solid**Odor** Rotten egg-like**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 In case of inadequate ventilation wear respiratory protection

IF ON SKIN: Wash with plenty of soap and water
 Call a POISON CENTER or doctor if you feel unwell
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)**OTHER INFORMATION**

- Harmful to aquatic life with long lasting effects
- Toxic to aquatic life

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Sulfur	7704-34-9	80

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin contact	Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Remove contaminated clothing and shoes.
Inhalation	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and no data available.

Effects**Indication of Any Immediate Medical Attention and Special Treatment Needed**

Notes to physician No information available. Treat symptomatically.

5. Fire-fighting measures**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

No information available.

Explosion data**Protective equipment and precautions for firefighters**

Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Environmental Precautions

Environmental precautions Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for Clean-Up Sweep up and shovel into suitable containers for disposal. Shovel or sweep up.

7. Handling and Storage**Precautions for safe handling**

Handling Avoid breathing dust. Keep away from heat, sparks and open flame. - No smoking. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

Storage Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. Store in a dry place and/or in closed container. Keep containers tightly closed in a cool, well-ventilated place.

incompatible materials Strong oxidizing agents.

8. Exposure Controls/Personal Protection

Exposure guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering controls Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design

of exhaust systems. PESTICIDE APPLICATORS & WORKERS. THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

Personal protective equipment

Eye/Face Protection

Skin protection

Respiratory protection

Avoid contact with eyes. Goggles.

Long sleeved clothing. Long pants. Chemical resistant gloves. waterproof gloves. Socks and footwear.

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations

Avoid contact with skin, eyes and clothing.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state	solid	Odor	Rotten egg-like
Appearance	amber		
color	No information available		

<u>Property</u>	<u>VALUES</u>	<u>Remarks/ • Method</u>
pH	No information available	
Melting point/freezing point	115 °C / 239 °F	
Boiling Point/Range	No information available	
Flash Point	207 C	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability limit in air		
Upper Flammability Limit	No information available	
Lower Flammability Limit	No information available	
vapor pressure	0.0086 mbar	
Vapor Density	No information available	
Specific gravity	No information available	
Water solubility	No information available	
Solubility in Other Solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	232 C	
Decomposition temperature	No information available	
Viscosity, kinematic	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

OTHER INFORMATION

Softening point	No information available
molecular weight	No information available
VOC Content	No information available
Liquid Density	No information available
Bulk density	0.86-1.00 (Tap) g/ml

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

no data available.

11. Toxicological Information**Information on Likely Routes of Exposure**

Product information	Single exposure studies indicate: Oral : No more than slightly toxic to rats (LD50 >2,000 mg/kg) Dermal: Slightly toxic to rats (LD50 2,000 mg/kg) Inhalation: Slightly toxic to rats (4hr LC50 1.35 mg/l) Eye Irritation: Non irritating to rabbits Skin Irritation: Non irritating to rabbits No skin allergy was observed in guinea pigs following repeated exposure.
Inhalation	Harmful by inhalation.
Eye contact	May cause irritation.
Skin contact	May be harmful if absorbed through the skin.
Ingestion	HARMFUL IF SWALLOWED.

Information on Toxicological Effects

Symptoms	No information available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic effects	no data available.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Reproductive effects	Not Available.
STOT - Single Exposure	no data available.
STOT - Repeated Exposure	no data available.
Aspiration hazard	No information available.

Numerical Measures of Toxicity - Product information

LD50 Oral	> 2000 mg/kg (rat)
LD50 Dermal	2000 mg/kg (rat)
LC50 Inhalation	Inhalation LC50 1.35 mg/l (4-hr)

12. Ecological Information

ecotoxicity

Do not apply directly to water to areas where surface water is present or to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment washwater in a manner that will contaminate water resources or areable land. Do not apply when weather conditions favor drift from treated areas.

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

No information available.

Other Adverse Effects

no data available

13. Disposal Considerations

Waste Treatment Methods**Waste Disposal Method**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging

Refer to product label.

14. Transport Information

DOT

Due to particle size the inhalation value is not considered in the classification.
NOT REGULATED

TDG

NOT REGULATED

IATA

NOT REGULATED

IMDG

NOT REGULATED

15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word

CAUTION

Ventilation Control

PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

Keep out of Reach of Children. Harmful if swallowed or absorbed through the skin.

International Inventories

USINV	Present
DSL/NDSL	Present
EINECS/ ELINCS	Not Present
ENCS	Not Present
China	Present
KECL	Present
PICCS	Present
AICS	Present
TSCA	Present

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

CERCLA

Not applicable

CERCLA

SARA Product RQ 0

RCRA

Pesticide Information

State Regulations

State Right-to-Know

Not applicable

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-187

16. Other Information

NFPA

HEALTH 2

flammability 1

Instability 0

Physical hazard -

Preparation Date 01-May-2015

Revision date 02-Jan-2019

Revision Summary

Update logo Update section 1 Update Section 16***

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