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

Product identifier
Product Description: Microthiol Disperss - Canada

Other means of identification
Product code 12-373A
Registration number(s) PMRA 29487

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) 527-3887
Medical: 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
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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur</td>
<td>7704-34-9</td>
<td>80</td>
</tr>
</tbody>
</table>

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 Effects
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.

Hazardous combustion products Heated material can form flammable and explosive vapors with air.

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
Avoid contact with eyes. Goggles.

Skin protection

Respiratory protection
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

<table>
<thead>
<tr>
<th>Property</th>
<th>VALUES</th>
<th>Remarks/ • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>solid</td>
<td></td>
</tr>
<tr>
<td>Appearance color</td>
<td>amber</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Rotten egg-like</td>
<td></td>
</tr>
<tr>
<td>color</td>
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<td></td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
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</tr>
<tr>
<td>Melting point/freezing point</td>
<td>115 °C / 239 °F</td>
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<tr>
<td>Boiling Point/Range</td>
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<tr>
<td>Flash Point</td>
<td>207 °C / 405 °F</td>
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<tr>
<td>Evaporation Rate</td>
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</tr>
<tr>
<td>Flammability (solid, gas)</td>
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</tr>
<tr>
<td>Flammability limit in air</td>
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<td></td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
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<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
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<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>0.0086 mbar</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
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<td></td>
</tr>
<tr>
<td>Specific gravity</td>
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<td></td>
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<tr>
<td>Water solubility</td>
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<td></td>
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<tr>
<td>Solubility in Other Solvents</td>
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<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
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<tr>
<td>Autoignition temperature</td>
<td>232 °C / 450 °F</td>
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<tr>
<td>Decomposition temperature</td>
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<tr>
<td>Viscosity, kinematic</td>
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<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
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<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
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</table>

OTHER INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Remarks/ • Method</th>
</tr>
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<tbody>
<tr>
<td>Softening point</td>
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<tr>
<td>molecular weight</td>
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<tr>
<td>VOC Content</td>
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<tr>
<td>Liquid Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Bulk density</td>
<td>0.86-1.00 (Tap) g/ml</td>
</tr>
</tbody>
</table>
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.

**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**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral</td>
<td>&gt; 2000 mg/kg (rat)</td>
</tr>
<tr>
<td>LD50 Dermal</td>
<td>2000 mg/kg (rat) 0 mg/l (mist) (dust) mg/m³</td>
</tr>
<tr>
<td>LC50 Inhalation</td>
<td>Inhalation LC50 1.35 mg/l (4-hr)</td>
</tr>
</tbody>
</table>
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/product is a pesticide product registered by the PMRA and is subject to specific label requirements under these regulations. The requirements may differ classification and hazard information required for safety data sheets and for labels of non-pesticide products. The following is information as required on the registered product label.

Signal word
CAUTION

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 29487

16. Other Information

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HEALTH</th>
<th>flammability</th>
<th>Instability</th>
<th>Physical hazard</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
<td>0</td>
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</tbody>
</table>

Preparation Date 01-May-2015
Revision date 06-Jan-2019
Revision Summary
Update logo Update section 1 Update Section 16

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End of SDS