



Lilly Miller Moss Out! For Lawns Concentrate

Safety Data Sheet

Date of issue: 02/26/2016

Revision date: 02/24/2021

Supersedes: 11/13/2019

Version: 1.2

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Lilly Miller Moss Out! For Lawns Concentrate
Synonyms : EPA Reg. No.: 802-509; 100099156; UPC #: 0-700624-00765-5

1.2. Recommended use and restrictions on use

Recommended use : Mossicide.
Restrictions on use : Avoid contact with eyes, skin or clothing. Keep out of reach of children and domestic animals.
Avoid inhalation of vapors or fumes. Do NOT take internally.

1.3. Supplier

Lilly Miller Brands
1000 Parkwood Circle, Suite 700
Atlanta, GA 30339 - United States

www.mossout.com

1.4. Emergency telephone number

Emergency number : 1-800-265-0761
1-800-424-9300 - CHEMTREC
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Corrosive to metals Category 1	May be corrosive to metals
Acute toxicity (oral) Category 4	Harmful if swallowed
Skin corrosion/irritation Category 1C	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	Causes serious eye damage
Carcinogenicity Category 1A	May cause cancer

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: May be corrosive to metals
Harmful if swallowed
Causes severe skin burns and eye damage
Causes serious eye damage
May cause cancer

Precautionary statements (GHS US)

: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep only in original container.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center or doctor if you feel unwell.
If swallowed: rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

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and easy to do. Continue rinsing.
If exposed or concerned: Get medical advice/attention.
Immediately call a poison center or doctor.
Specific treatment (see supplemental first aid instruction on this label).
Rinse mouth.
Wash contaminated clothing before reuse.
Absorb spillage to prevent material-damage.
Store locked up.
Store in corrosive resistant container with a resistant inner liner.
Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This product is toxic to fish. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Iron(III) sulfate	(CAS-No.) 10028-22-5	35
Sulfuric acid	(CAS-No.) 7664-93-9	1 – 5
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.

First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : May cause severe skin burns.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Harmful if swallowed.

Chronic symptoms : May cause cancer.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Do not allow fire fighting water to escape into waterways or sewers.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing vapors or fumes. Evacuate unnecessary personnel. Wear appropriate personal protective equipment, avoid direct contact.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.

Emergency procedures : Do not scatter spilled material with high pressure water streams. Do NOT wash away into sewer. Avoid release to the environment. Stay upwind. Stop release. Ventilate area. Wear appropriate personal protective equipment, avoid direct contact. Evacuate unnecessary personnel. Stop leak if safe to do so. Do not touch spilled material.

6.2. Environmental precautions

Do NOT wash away into sewer. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal. Wear appropriate personal protective equipment, avoid direct contact.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing fumes.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Keep from freezing. Keep only in original container. Keep container tightly closed. Store locked up.

Incompatible materials : Strong oxidizers. Strong bases. Strong acids. Metals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sulfuric acid (7664-93-9)		
ACGIH	ACGIH OEL TWA	0.2 mg/m ³ (thoracic particulate matter)
ACGIH	Remark (ACGIH)	Pulm func
OSHA	OSHA PEL (TWA) [1]	1 mg/m ³
IDLH	IDLH	15 mg/m ³
NIOSH	NIOSH REL (TWA)	1 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear chemical resistant gloves

Eye protection:

Chemical goggles or face shield

Skin and body protection:

Wear long-sleeved shirt, long pants, socks and shoes

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Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Brown to reddish liquid
Color	: Brown to reddish
Odor	: No data available
Odor threshold	: No data available
pH	: 1 as is, 4.8 in 1% solution
Melting point	: 14.44 °C (58 °F)
Freezing point	: No data available
Boiling point	: 100 °C (212 °F)
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.57 – 1.62
Solubility	: Soluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

10.4. Conditions to avoid

Excessive heat and freezing conditions.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids. Metals.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Decomposes upon heating to produce toxic gases including sulfur oxides.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

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ATE (Oral)	500 mg/kg body weight

Sulfuric acid (7664-93-9)
Listed on IARC (International Agency for Research on Cancer)

GHS-US Properties	Classification
Acute toxicity (oral)	Harmful if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Causes severe skin burns.
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	May cause cancer.
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : Under normal conditions of use, no health effects are expected.

Skin

Acute : Causes serious skin burns.

Eye

Acute : Causes serious eye damage.

Ingestion

Acute : Harmful if swallowed.

Mutagenicity : Not classified.

Carcinogenicity : Strong inorganic acid aerosols/mists containing sulfuric acid are carcinogenic to humans via inhalation. Under normal conditions of use this route of exposure is not expected.

Reproductive Effects : Not classified.

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Other adverse effects

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Ecological Fate	This product is toxic to fish.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

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SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN3264	Corrosive liquid, acidic, inorganic, n.o.s. (Ferric sulfate & Sulfuric acid)	8	III	RQ Ferric sulfate = 1,000 lbs. Sulfuric acid = 1,000 lbs.
IMDG	UN3264	Corrosive liquid, acidic, inorganic, n.o.s. (Ferric sulfate & Sulfuric acid)	8	III	Not applicable
IATA	UN3264	Corrosive liquid, acidic, inorganic, n.o.s. (Ferric sulfate & Sulfuric acid)	8	III	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Iron(III) sulfate (10028-22-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
CERCLA RQ	1000 lb
Sulfuric acid (7664-93-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on the United States SARA Section 302	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb
Section 302 EPCRA Reportable Quantity (RQ)	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb
SARA Section 313 - Emission Reporting	1 % (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)
EPA Labelling	
EPA Registration Number	802-509
This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.	
FIFRA Hazard statements	Warning
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear such as goggles or safety glasses, long-sleeved shirt and long pants, socks, shoes and gloves. Harmful if swallowed, inhaled or absorbed through skin. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Do not allow persons or pets in treated areas until sprays have dried.
FIFRA First aid	Have product container or label with you when calling a poison control center or doctor, or going for treatment. If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. If inhaled: 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 poison control center or doctor for further treatment advice. If on skin or on clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
FIFRA Environmental hazards	This product is toxic to fish. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage ditches.

15.2. US State regulations

No additional information available

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SECTION 16: Other information

Date of issue	: 26 February 2016
Revision date	: 24 February 2021
Supersedes	: 13 November 2019

Indication of changes:

Revised Sec. 3: Mixture classification change. Sec. 14: Updated transportation description.

SDS US (GHS HazCom 2012) - CGP

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