United States

Material Safety Data Sheet

Miracle-Gro Lawn Products Inc
14111 Scottslawn Road
Marysville, Ohio 43041
United States

24 h. EMERGENCY TELEPHONE NUMBER
CHEMTREC (U.S.) 1-800-424-9300
CHEMTREC (International) 1-703-527-3887
Non-Emergency Calls
1-937-644-0011

MIRACLE-GRO FAST ROOT 1 DRY POWDER ROOTING HORMONE

1. Product and company identification

<table>
<thead>
<tr>
<th>MSDS #</th>
<th>320000002449</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA Registration Number:</td>
<td>63310-19-62355</td>
</tr>
</tbody>
</table>

2. Hazards identification

Physical state : solid [powder]
Color : Gray
Odor : almost odorless
Signal word : CAUTION!
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency Overview
Causes moderate eye irritation.
Harmful if inhaled.
Harmful if absorbed through the skin.
Avoid contact with skin, eyes or clothing.
Wash thoroughly after handling.
Avoid breathing dust, vapor or spray mist.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin : No known significant effects or critical hazards.
Eyes : No known significant effects or critical hazards.
Target organs : Contains material which causes damage to the following organs:
cardiovascular system
upper respiratory tract
eyes

Potential chronic health effects : See section 11 for more information.

Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>Ingestion</th>
<th>Skin</th>
</tr>
</thead>
<tbody>
<tr>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>
Eyes: No specific data.
Medical conditions aggravated by over-exposure: Pre-existing skin disorders may be aggravated by over-exposure to this product.
See toxicological information (Section 11)

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc (Mg₃H₂(SiO₃)₄)</td>
<td>14807-96-6</td>
<td>&gt;70 - &lt;=100</td>
</tr>
</tbody>
</table>

4. First aid measures

Eye contact: Hold eye open and rinse slowly and gently with water for 15 to 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.

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

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 poison control center or doctor for further treatment advice.

Ingestion: 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. Never give anything by mouth to an unconscious person.

Notes to physician: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product: No specific fire or explosion hazard.

Extinguishing media

Suitable: Use an extinguishing agent suitable for the surrounding fire.
Not suitable: None known.

Special exposure hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous thermal decomposition products: No specific data.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions: Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions: To protect the environment, do not allow pesticide to enter or run-off into...
Methods for cleaning up

Small spill  :  Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill  :  Vacuum or sweep up material and place in container for disposal. Never place down drain.

7. Handling and storage

Handling  :  Avoid inhalation or contact with skin, eyes or clothing. Avoid container breakage. Do not contaminate water sources when disposing of equipment wastewater or rinsate. Keep out of lakes, stream or ponds. Keep out of reach of children.

Storage  :  Store in original container in a cool, dry, well-ventilated area inaccessible to children and pets. Do not contaminate food or feedstuffs.

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc (Mg_3H_2(SiO_3)_4)</td>
<td>OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 2 mg/m³ Form: Respirable dust</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (1994-06-01) Time Weighted Average (TWA) 2 mg/m³ Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (1996-05-18) Notes: The agent (mixture, or exposure circumstance) is not classifiable as to its carcinogenicity to humans. Refers to Appendix A -- Carcinogens. 1996 Adoption The value is for total dust containing no asbestos and &lt; 1% crystalline silica. TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 2 mg/m³ Form: Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL Z3 (1997-09-03) Notes: Containing less than 1% quartz; if 1% quartz or more, use quartz limit. Time Weighted Average (TWA) Form: not/asb</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL Z3 (1997-09-03) Short Term Exposure Limit (STEL) Form: not/asb</td>
</tr>
</tbody>
</table>

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures  :  If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures.
Engineering measures : Use adequate ventilation to keep the airborne concentrations below the recommended exposure standard.

Hygiene measures : Wash thoroughly with soap and water after handling. Remove and launder contaminated clothing before reuse.

Personal protection

Respiratory : No special respiratory protection required. If ventilation is inadequate to keep the airborne concentrations below the recommended exposure standard wear appropriate respiration protection.

Hands : Wear protective gloves.

Eyes : Protective eyewear is not required, but may be used in situations where contact is expected.

Skin : Wear long-sleeved shirt, long pants, shoes with socks. Remove and wash contaminated clothing before reuse.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

| Physical state       : solid [powder] |
|----------------------|----------------------------------|
| Flash point          : Not Applicable          |
| Burning time         : Not Applicable          |
| Auto-ignition temperature : Not Applicable          |
| Flammable limits     : Not Applicable          |
| Density              : 2.9 g/cm3              |
| Color                : Gray.               |
| Odor                 : almost odorless       |
| pH                   : Not Applicable          |
| Boiling/condensation point : Not Applicable          |
| Melting/freezing point : Not Applicable          |
| Relative density     : Not Applicable          |
| Vapor pressure       : Not Applicable          |
| Vapor density        : Not Applicable          |
| Volatility           : Not Applicable          |
| Odor threshold       : Not Applicable          |
| Evaporation rate     : Not Applicable          |
| Viscosity            : Not Applicable          |
| Solubility           : Not Applicable          |
| Solubility in water  : Not Applicable          |

10. Stability and reactivity

Chemical stability : The product is stable.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
11. Toxicological information

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>LD50</td>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Product</td>
<td>LC50</td>
<td>Inhalation</td>
<td>Rat</td>
<td>&gt; 2.02 mg/l</td>
</tr>
<tr>
<td>Product</td>
<td>LD50</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 2,000 mg/kg</td>
</tr>
</tbody>
</table>

**Conclusion/Summary**: Hazards to humans and domestic animals.

**Irritation/Corrosion**

- **Skin**: May cause skin irritation.
- **Eyes**: May cause eye irritation.
- **Respiratory**: Not available.

**Sensitizer**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Skin</th>
<th>Respiratory</th>
<th>Not available.</th>
</tr>
</thead>
</table>

**Chronic toxicity**

**Conclusion/Summary**: No known significant effects or critical hazards.

**Carcinogenicity**

**Conclusion/Summary**: No known significant effects or critical hazards.

**Classification**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>EPA</th>
<th>NIOSH</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc (Mg3H2(SiO3)4)</td>
<td>A4</td>
<td>132B3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Mutagenicity**

**Conclusion/Summary**: No known significant effects or critical hazards.

**Teratogenicity**

**Conclusion/Summary**: No known significant effects or critical hazards.

**Reproductive toxicity**

**Conclusion/Summary**: No known significant effects or critical hazards.

12. Ecological information

**Ecotoxicity**

: No known significant effects or critical hazards.

**Aquatic ecotoxicity**

**Conclusion/Summary**

: No known significant effects or critical hazards.

**Persistence/degradability**

**Conclusion/Summary**

: No known significant effects or critical hazards.
Partition coefficient: n-octanol/water : No known significant effects or critical hazards.
Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN no.</th>
<th>Proper shipping name</th>
<th>Class</th>
<th>PG*</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td></td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IATA (C)</td>
<td></td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IATA (P)</td>
<td></td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMDG</td>
<td></td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDG</td>
<td></td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PG* : Packing group</td>
<td></td>
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</tr>
</tbody>
</table>

15. Regulatory information

United States

U.S. Federal regulations : SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: No products were found.
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Talc (Mg3H2(SiO3)4): Acu
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

United States inventory (TSCA 8b) : All components are listed or exempted.

State regulations
Massachusetts : The following components are listed: Talc (Mg3H2(SiO3)4)
New York : None of the components are listed.
New Jersey : The following components are listed: Talc (Mg3H2(SiO3)4)
Pennsylvania: The following components are listed: Talc (Mg3H2(SiO3)4)

California Prop. 65: Not listed.

International regulations

Canada inventory: All components are listed or exempted.

International lists:
- Australia inventory (AICS): All components are listed or exempted.
- New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
- China inventory (IECSC): Not determined.
- Japan inventory: Not determined.
- Korea inventory: All components are listed or exempted.
- Philippines inventory (PICCS): All components are listed or exempted.

16. Other information

Hazardous Material Information System (U.S.A.):

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA).

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.):

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Date of printing: Print date
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