Latest revision date: 11/25/2013
Version: 1.1

**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 SHAKE 'N FEED CONTINUOUS RELEASE ALL PURPOSE PLANT FOOD 10-10-10

## 1. Product and company identification

**MSDS #** : 320000000130

## 2. Hazards identification

**Physical state** : solid [Granular]

**Color** : Color-Pantone Green.
**Odor** : Sulfurous.
**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
**Emergency Overview** No harmful effects expected.

**Potential acute health effects**

**Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
**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: gastrointestinal tract
eyes

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

**Over-exposure signs/symptoms**

**Inhalation** : No specific data.
**Ingestion** : No specific data.
**Skin** : No specific data.
**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

| Name | CAS number | % |
|---|---|---|
| Potassium chloride (KCl) | 7447-40-7 | >15 - <=30 |
| Ammonia | 7664-41-7 | >5 - <=10 |

## 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.

## 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** : Decomposition products may include the following materials:
nitrogen oxides
sulfur oxides
halogenated compounds
metal oxide/oxides

**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** : No specific hazard.

**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 washwater 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**

| Ingredient | Exposure limits |
|---|---|
| Ammonia | **OSHA PEL 1989 (1989-03-01)** Short Term Exposure Limit (STEL) 27 mg/m3 , 35 ppm<br>**OSHA PEL (1993-06-30)** PEL: Permissible Exposure Level 35 mg/m3 , 50 ppm<br>**NIOSH REL (1994-06-01)** Time Weighted Average (TWA) 18 mg/m3 , 25 ppm<br>**NIOSH REL (1994-06-01)** Short Term Exposure Limit (STEL) 27 mg/m3 , 35 ppm<br>**ACGIH TLV (1994-09-01)** TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 17 mg/m3 , 25 ppm<br>**ACGIH TLV (1994-09-01)** TLV-STEL: Threshold Limit Value - Short Time Exposure Level 24 mg/m3 , 35 ppm |

**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 and/or the necessity to use respiratory protective equipment.

**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 were contact is expected.

**Skin** : No special protective clothing is required.

| | | |
|---|---|---|
| **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 [Granular] |
| **Flash point** | : | Not Applicable |
| **Burning time** | : | Not Applicable |
| **Auto-ignition temperature** | : | Not Applicable |
| **Flammable limits** | : | Not Applicable |
| **Density** | : | 64 lb/ft3 |
| **Color** | : | Color-Pantone Green. |
| **Odor** | : | Sulfurous. |
| **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** | : | **Dynamic:** 370 mPa.s |
| **Solubility** | : | Not Applicable |
| **Solubility in water** | : | Not Applicable |

## 10. Stability and reactivity

| | | |
|---|---|---|
| **Chemical stability** | : | The product is stable. |
| **Conditions to avoid** | : | Avoid exposure - obtain special instructions before use. |
| **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**

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Potassium chloride (KCl) | LD50 Oral | Rat | 2,600 mg/kg | - |
| ammonia, anhydrous | LC50 Inhalation | Rat | 2000 ppm | 4 h |

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

**Irritation/Corrosion**

| | |
|---|---|
| Skin | Non-irritating |
| Eyes | May cause eye irritation. |
| Respiratory | Not available |

**Sensitizer**

| | | |
|---|---|---|
| **Conclusion/Summary** | Skin | Not sensitizing - based on the individual components. |
| | Respiratory | Not sensitizing - based on the individual components. |

**Chronic toxicity**

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

**Carcinogenicity**

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

**Mutagenicity**

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

**Teratogenicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|

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**

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| Ammonia | | | |
| | Acute LC50 0.66 mg/l Fresh water | Fish - Common Carp | 4 d |

**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

| Regulatory information | UN no. | Proper shipping name | Class | PG* | Note |
|---|---|---|---|---|---|
| DOT | | Not Regulated | | | |

| **Regulatory information** | **UN no.** | **Proper shipping name** | **Class** | **PG*** | **Note** |
|---|---|---|---|---|---|

PG* : Packing group

## 15.Regulatory information

**United States**

**U.S. Federal regulations** : **SARA 302/304/311/312 extremely hazardous substances:** Sulfuric acid Ammonia
**SARA 302/304 emergency planning and notification:** Sulfuric acid Ammonia
**SARA 302/304/311/312 hazardous chemicals:** Sulfuric acid Ammonia
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** Sulfur: Acu, Fire hazard - flammable, combustible liquid, pyrophoric Sulfuric acid ammonium salt (1:2): Acu Potassium chloride (KCl): Acu, Del Sulfuric acid: Del: Acu, Del, Rea Ammonia: Acu, Pre
**Clean Water Act (CWA) 307:** The following components are listed: Copper, [C-chloro-29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-
**Clean Water Act (CWA) 311:** The following components are listed: Sulfuric acid Ammonia
**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:** The following components are listed: Ammonia

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

**State regulations**

**Massachusetts** : The following components are listed: Sulfur Sulfuric acid ammonium salt (1:2) Sulfuric acid Ammonia

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: Sulfur Sulfuric acid ammonium salt (1:2) Sulfuric acid Ammonia

**Pennsylvania** : The following components are listed: Sulfur Sulfuric acid ammonium salt (1:2) Sulfuric acid Ammonia

**California Prop. 65** : Not listed.

**International regulations**

**Canada inventory** : All components are listed or exempted.

**International lists** : **Australia inventory (AICS):** At least one component is not listed.
**New Zealand Inventory of Chemicals (NZIoC):** At least one component is not listed.
**China inventory (IECSC):** At least one component is not listed.
**Japan inventory:** At least one component is not listed.
**Korea inventory:** At least one component is not listed.
**Philippines inventory (PICCS):** At least one component is not listed.

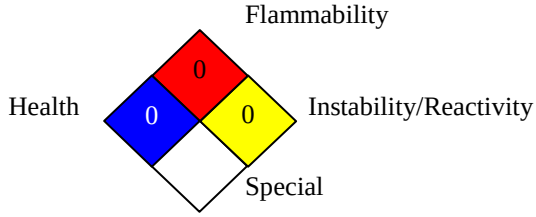
## 16.Other information

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

| | |
|---|---|
| **Health** | 1 |
| **Flammability** | 0 |
| **Physical hazards** | 0 |
| | |

**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). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.**
**The customer is responsible for determining the PPE code for this material.**

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




**Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.**
**Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.**

**Date of printing** : Print date
**Date of issue** : Validity date***.
**Version** : Report version.Report version

**Notice to reader**

**To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.**