



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 INDOOR PLANT FOOD 1-1-1

1. Product and company identification

MSDS # : 320000005584

2. Hazards identification

Physical state : liquid [Clear solution]
Color : Colorless.
Odor : odorless
Precautionary measures : Do not breathe vapor or mist. Do not ingest. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency Overview : Keep out of reach of children.

Potential acute health effects

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion : Harmful if swallowed.
Skin : No known significant effects or critical hazards.
Eyes : Slightly irritating to the eyes.
Target organs : Contains material which causes damage to the following organs:
eyes

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

Over-exposure signs/symptoms

Inhalation : No specific data.
Ingestion : No specific data.
Skin : Adverse symptoms may include the following:
irritation
redness
Eyes : Adverse symptoms may include the following:
irritation
watering

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redness
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	%
Phosphoric acid	7664-38-2	>1 - <=3
Potassium hydroxide (K(OH))	1310-58-3	>1 - <=3
Urea	57-13-6	>1 - <=3
Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs.	9005-64-5	>0.5 - <=1

4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

5. Fire-fighting measures

Flammability of the product : In a fire or if heated, a pressure increase will occur and the container may burst.

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:
carbon dioxide
carbon monoxide
nitrogen oxides
phosphorus oxides
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

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positive pressure mode.

6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Occupational exposure limits

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Ingredient	Exposure limits
Phosphoric acid	<p>OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 1 mg/m³</p> <p>OSHA PEL 1989 (1989-03-01) Short Term Exposure Limit (STEL) 3 mg/m³</p> <p>OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 1 mg/m³</p> <p>NIOSH REL (1994-06-01) Time Weighted Average (TWA) 1 mg/m³</p> <p>NIOSH REL (1994-06-01) Short Term Exposure Limit (STEL) 3 mg/m³</p> <p>ACGIH TLV (1994-09-01) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 1 mg/m³</p> <p>ACGIH TLV (1994-09-01) TLV-STEL: Threshold Limit Value - Short Time Exposure Level 3 mg/m³</p>
Potassium hydroxide (K(OH))	<p>OSHA PEL 1989 (1989-03-01) Threshold Limit Value - Ceiling (TLV-C) 2 mg/m³</p> <p>NIOSH REL (1994-06-01) Time Weighted Average (TWA) 2 mg/m³</p> <p>ACGIH TLV (1994-09-01) Threshold Limit Value - Ceiling (TLV-C) 2 mg/m³</p>
Urea	<p>AIHA WEEL (1999-01-01) Time Weighted Average (TWA) 10 mg/m³</p>

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. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure

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	levels, the hazards of the product and the safe working limits of the selected respirator.
Hands	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Eyes	: Protective eyewear is not required, but may be used in situations where 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	: liquid [Clear solution]
Flash point	: Not Applicable
Burning time	: Not Applicable
Auto-ignition temperature	: Not Applicable
Flammable limits	: Not Applicable
Density	: 1.03 g/ml 8.6 lb/gal
Color	: Colorless.
Odor	: odorless
pH	: 6.5
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

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Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
potassium hydroxide	LD50 Oral	Rat	273 mg/kg	-
Urea	LD50 Oral	Rat	8,471 mg/kg	-

Conclusion/Summary No known significant effects or critical hazards.

Irritation/Corrosion

Skin	Non-irritating
Eyes	May cause eye irritation.
Respiratory	May cause respiratory irritation

Sensitizer

Conclusion/Summary	Skin	Not sensitizing
	Respiratory	Not sensitizing

Chronic toxicity

Conclusion/Summary No known significant effects or critical hazards.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
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

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

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Waste disposal

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

14. Transport information

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

15. Regulatory information

United States

U.S. Federal regulations : **United States - TSCA 12(b) - Chemical export notification:** None of the components are listed.
United States - TSCA 8(a) - Inventory update rule (IUR): Not determined
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: Phosphoric acid: Acu Nitric acid ammonium salt (1:1): Fire hazard - flammable, combustible liquid, pyrophoric, Rea Potassium hydroxide (K(OH)): Acu, Del Urea: Acu, Del
United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Listed Phosphoric acid Potassium hydroxide (K(OH)) Sodium hydroxide (Na(OH))

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

State regulations

Massachusetts : The following components are listed: Phosphoric acid Nitric acid ammonium salt (1:1) Potassium hydroxide (K(OH))

New York : None of the components are listed.

New Jersey : The following components are listed: Phosphoric acid Nitric acid ammonium salt (1:1) Potassium hydroxide (K(OH))

Pennsylvania : The following components are listed: Phosphoric acid Nitric acid ammonium salt (1:1) Potassium hydroxide (K(OH))

California Prop. 65 : Not listed

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International regulations

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

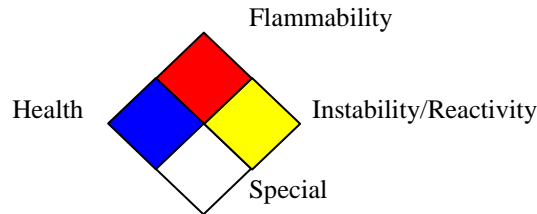
16. Other information

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.):



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