



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 LIQUAFEED TOMATO, FRUITS & VEGETABLES PLANT  
FOOD 9-4-9

**1. Product and company identification**

MSDS # : 320000002446

**2. Hazards identification**

Physical state : liquid [Clear liquid]  
Color : Green.  
Odor : Ammoniacal.  
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 : Toxic if swallowed.  
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  
upper respiratory tract  
skin  
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.

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See toxicological information (Section 11)

### 3. Composition/information on ingredients

| Name                     | CAS number | %          |
|--------------------------|------------|------------|
| Urea                     | 57-13-6    | >15 - <=30 |
| Potassium chloride (KCl) | 7447-40-7  | >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** : 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  
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. Do not

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- breathe vapor or mist. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : No specific hazard.

### 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. Dike spill area and do not allow product to reach soil, surface water, ground water or sewers. Contain and collect spillage with non-combustible, absorbent material and place in container for disposal.

## 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** : Keep from freezing. 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   |
|------------|---|
| Urea       | AIHA WEEL (1999-01-01) Time Weighted Average (TWA) 10 mg/m <sup>3</sup> |

### 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** : Protective gloves are not required, but may be used in situations where significant contact is expected.
- Eyes** : Protective eyewear is not required, but may be used in situations where contact is expected.

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- 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 liquid]
- Flash point** : Not Applicable
- Burning time** : Not Applicable
- Auto-ignition temperature** : Not Applicable
- Flammable limits** : Not Applicable
- Density** : 1.21 g/ml
- Color** : Green.
- Odor** : Ammoniacal.
- pH** : Not applicable.6.8
- 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

| Product/ingredient name  | Result    | Species | Dose        | Exposure |
|--------------------------|-----------|---------|-------------|----------|
| Urea                     | LD50 Oral | Rat     | 8,471 mg/kg | -        |
| Potassium chloride (KCl) | LD50 Oral | Rat     | 2,600 mg/kg | -        |

Conclusion/Summary : Very low toxicity to humans or animals.

### Irritation/Corrosion

|             |                |
|-------------|----------------|
| Skin        | Non-irritating |
| Eyes        | Minimal        |
| Respiratory | Not available. |

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## 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:** Urea: Acu, Del Potassium chloride (KCl): Acu, Del Phosphoric acid: Acu Potassium hydroxide (K(OH)): Acu, Del
  - Clean Water Act (CWA) 307:** The following components are listed: Zincate(2-), [[N,N'-1,2-ethanediybis[N-[(carboxy-.kappa.O)methyl]glycinato-.kappa.N,.kappa.O]](4-)-], sodium (1:2), (OC-6-21)-
  - Clean Water Act (CWA) 311:** The following components are listed: Phosphoric acid Potassium hydroxide (K(OH))
  - 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: Phosphoric acid Potassium hydroxide (K(OH))
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: Phosphoric acid Potassium hydroxide (K(OH))
- Pennsylvania** : The following components are listed: Phosphoric acid Potassium hydroxide (K(OH))
- California Prop. 65** : Not listed.

### International regulations

- Canada inventory** : At least one component is not listed.
- 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.

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**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.

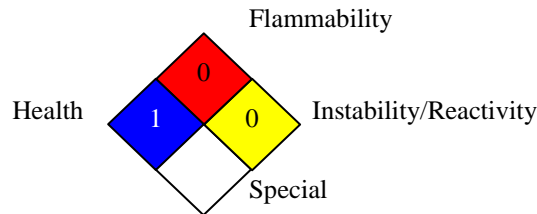
## 16. Other information

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

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

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



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