



# MATERIAL SAFETY DATA SHEET

Date stamp: 20-Jan-2009

MSDS Ref. No.: 100099

Revision Number: 0

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Miracle-Gro® Water Soluble All Purpose Plant Food, 24-8-16

**Description:** Water Soluble Fertilizer

**Company**

The Scotts Company LLC  
14111 Scottslawn Road  
Marysville, OH 43041

**24-HOUR EMERGENCY TELEPHONE NUMBERS:**

CHEMTREC (U.S.): 1-800-424-9300  
CHEMTREC (International): 1-703-527-3887  
Non-Emergency Calls: 1-937-644-0011

**Formula No.:** S10385

**Product Number(s):** 100099, 1001232, 1000282, 1001192, 1007502, 2001122, 3001192, 5001122

## 2. HAZARDS IDENTIFICATION

**OSHA Regulatory Status:**

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Labelling**

**Signal word:**

No signal word

**Precautionary Statements**

Keep out of reach of children.

**Potential health effects**

**Eye contact:**

Contact with eyes may cause irritation.

**Skin contact:**

Irritation not expected. Irritation possible.

**Ingestion:**

Considered practically non-toxic. Possible gastrointestinal tract irritation.

**Inhalation:**

May cause irritation of respiratory tract.

**Aggravated Medical Conditions:**

Inhalation may aggravate asthma.

**Principle routes of exposure:**

Skin, Inhalation

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components  | CAS-No     | Weight % |
|---|------------|----------|
| Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> ·2H <sub>2</sub> O | 7631-95-0  | <0.1     |
| Sodium-EDTA   | 139-33-3   | 0.083    |
| Boric acid, H <sub>3</sub> BO <sub>3</sub>                            | 10043-35-3 | 0.1-1.0  |
| Zinc Sulfate Anhydrous  | 7733-02-0  | 0.1-1.0  |
| Manganese-EDTA  | 15375-84-5 | 0.46     |
| Iron EDTA   | 15708-41-5 | 1.0-5.0  |
| Potassium Phosphate   | 7778-77-0  | 10-30    |
| Potassium chloride, KCl   | 7447-40-7  | 10-30    |
| Copper sulphate, CuSO <sub>4</sub>                                    | 7758-98-7  | 0.1-1.0  |
| Ammonium sulphate, (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>    | 7783-20-2  | 10-30    |
| Urea  | 57-13-6    | 30-60    |

## 4. FIRST AID MEASURES

**Eye contact:**

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

**Skin contact:**

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

**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. Do not give anything by mouth to an unconscious person

**Inhalation:**

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice

**5. FIRE-FIGHTING MEASURES**

|   |   |
|---|---|
| <b>Flammable properties:</b>                          | Decomposes on heating.  |
| <b>Suitable extinguishing media:</b>                  | Water spray, carbon dioxide, dry chemical, chemical foam      |
| <b>Explosion potential:</b>                           | Dust clouds may be explosive.                                 |
| <b>Explosive properties:</b>                          | No information available.                                     |
| <b>Hazardous combustion products:</b>                 | Combustion can produce toxic fumes and irritating gases.      |
| <b>Fire fighting procedures:</b>                      | Select appropriate method to surround and extinguish fire     |
| <b>Special protective equipment for firefighters:</b> | In the event of fire, wear self-contained breathing apparatus |

**6. ACCIDENTAL RELEASE MEASURES**

|                                   |  |
|-----------------------------------|--|
| <b>Personal precautions:</b>      | Wear personal protective equipment   |
| <b>Environmental precautions:</b> | Prevent product from entering drains   |
| <b>Methods for containment:</b>   | Use good housekeeping practices. Clean up promptly by sweeping or vacuum.    |
| <b>Methods for cleaning up:</b>   | If material is uncontaminated, collect and reuse as recommended for product. |

**7. HANDLING AND STORAGE**

**Handling:** Avoid container breakage

**Storage:** Keep containers tightly closed in a cool, well-ventilated place

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

| Components  | ACGIH:                    | OSHA:                   |
|---|---------------------------|-------------------------|
| Sodium-EDTA   | Not Listed                | Not Listed              |
| Manganese-EDTA  | Not Listed                | Not Listed              |
| Ammonium sulphate, (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>    | Not Listed                | Not Listed              |
| Potassium Phosphate   | Not Listed                | Not Listed              |
| Potassium chloride, KCl   | Not Listed                | Not Listed              |
| Urea  | Not Listed                | Not Listed              |
| Boric acid, H <sub>3</sub> BO <sub>3</sub>                            | 2 mg/m <sup>3</sup> TWA   | Not Listed              |
| Iron EDTA   | 1 mg/m <sup>3</sup> TWA   | Not Listed              |
| Copper sulphate, CuSO <sub>4</sub>                                    | Not Listed                | Not Listed              |
| Zinc Sulfate Anhydrous  | Not Listed                | Not Listed              |
| Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O | 0.5 mg/m <sup>3</sup> TWA | 5 mg/m <sup>3</sup> TWA |

**Engineering controls** Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard

**Personal Protective Equipment****Eye/face protection**

Eye/face protection is not required, but is recommended in manufacturing situations where contact may occur.

**Skin and body protection:**

Wear suitable protective clothing if contact is anticipated during manufacturing. Impervious gloves.

**Respiratory protection:**

If airborne levels are high or product does not remain intact, use a combination of engineering controls (e.g. ventilation) and personal protection, e.g., NIOSH/MSHA approved respirator for dusts, mists, and fumes

**General hygiene considerations:** Wash hands before breaks and immediately after handling the product

**9. PHYSICAL AND CHEMICAL PROPERTIES**

|                        |   |                     |                |
|------------------------|---|---------------------|----------------|
| <b>Physical State:</b> | Solid                                   | <b>Color:</b>       | Blue           |
| <b>Bulk density:</b>   | 45-50 lbs/cu.ft.                        | <b>Flash point:</b> | Not applicable |
| <b>Appearance:</b>     | Granular                                | <b>pH:</b>          | 3.0 - 4.0      |
| <b>Solubility:</b>     | Water solubility, Highly soluble (>80%) |                     |                |

**10. STABILITY AND REACTIVITY**

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|  |  |
|--|--|
| <b>Chemically Stable:</b>                  | Yes  |
| <b>Conditions to avoid:</b>                | Damp or wet conditions. Extreme heat.                          |
| <b>Materials to avoid:</b>                 | Oxidizing agent.   |
| <b>Hazardous decomposition products:</b>   | Toxic fumes and gases may be generated. Metal oxides possible. |
| <b>Possibility of hazardous reactions:</b> | Poses little or no immediate hazard.                           |

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

**Eye effects:** Contact with eyes may cause irritation  
**Skin effects:** May cause skin irritation and/or dermatitis

**Chronic toxicity**

**Carcinogenic effects:** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Components  | NTP:       | IARC:      | OSHA:      |
|---|------------|------------|------------|
| Sodium-EDTA   | Not listed | Not listed | Not listed |
| Manganese-EDTA  | Not listed | Not listed | Not listed |
| Ammonium sulphate, (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>    | Not listed | Not listed | Not listed |
| Potassium Phosphate   | Not listed | Not listed | Not listed |
| Potassium chloride, KCl   | Not listed | Not listed | Not listed |
| Urea  | Not listed | Not listed | Not listed |
| Boric acid, H <sub>3</sub> BO <sub>3</sub>                            | Not listed | Not listed | Not listed |
| Iron EDTA   | Not listed | Not listed | Not listed |
| Copper sulphate, CuSO <sub>4</sub>                                    | Not listed | Not listed | Not listed |
| Zinc Sulfate Anhydrous  | Not listed | Not listed | Not listed |
| Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O | Not listed | Not listed | Not listed |

**General Information**

Very low toxicity for humans and animals

**Ingestion:**

Health injuries are not known or expected under normal use

**Inhalation:**

Health injuries are not known or expected under normal use

**12. ECOLOGICAL INFORMATION**

|   |  |
|---|--|
| <b>Ecotoxicity effects:</b>               | No data is available on the product itself.        |
| <b>Persistence and degradability:</b>     | Inherently biodegradable. Non-persistent.          |
| <b>Bioaccumulative potential:</b>         | Does not bioaccumulate.                            |
| <b>Mobility:</b>                          | Water contaminating.                               |
| <b>Aquatic toxicity:</b>                  | May be beneficial to plant life.                   |
| <b>Additional ecological information:</b> | Do not apply directly to lakes, streams, or ponds. |

**13. DISPOSAL CONSIDERATIONS**

|                                |   |
|--------------------------------|---|
| <b>Waste Disposal Methods:</b> | Apply as fertilizer to field. Dispose of in accordance with local regulations and national regulations. |
| <b>Contaminated packaging:</b> | Do not re-use empty containers. If empty, place in trash or offer for recycling if available.           |

**14. TRANSPORT INFORMATION**

The description shown may not apply to all situations. Consult 49 CFR, or appropriate dangerous goods regulations for additional description requirements (e.g. technical name) and mode-specific or quantity-specific shipping requirements.

|                     |                   |
|---------------------|-------------------|
| <b>DOT (Land)</b>   | Not DOT regulated |
| <b>DOT (AIR)</b>    | Not DOT regulated |
| <b>DOT (Vessel)</b> | Not DOT regulated |

**15. REGULATORY INFORMATION**

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| Components  | CAS-No     | CERCLA/SARA 313                     | CERCLA/SARA 302 |
|---|------------|-------------------------------------|-----------------|
| Sodium-EDTA   | 139-33-3   | Not Listed                          | Not Listed      |
| Manganese-EDTA  | 15375-84-5 | Not Listed                          | Not Listed      |
| Ammonium sulphate, (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>    | 7783-20-2  | Not Listed                          | Not Listed      |
| Potassium Phosphate   | 7778-77-0  | Not Listed                          | Not Listed      |
| Potassium chloride, KCl   | 7447-40-7  | Not Listed                          | Not Listed      |
| Urea  | 57-13-6    | Not Listed                          | Not Listed      |
| Boric acid, H <sub>3</sub> BO <sub>3</sub>                            | 10043-35-3 | Not Listed                          | Not Listed      |
| Iron EDTA   | 15708-41-5 | Not Listed                          | Not Listed      |
| Copper sulphate, CuSO <sub>4</sub>                                    | 7758-98-7  | 10 lb final RQ<br>4.54 kg final RQ  | Not Listed      |
| Zinc Sulfate Anhydrous  | 7733-02-0  | 1000 lb final RQ<br>454 kg final RQ | Not Listed      |
| Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O | 7631-95-0  | Not Listed                          | Not Listed      |

**General Information**

Contact local authorities for disposal of large quantities of product

**16. OTHER INFORMATION****NFPA:** Health: 1 Flammability: 0 Reactivity: 0**HMIS:** Health: 1 Flammability: 0 Reactivity: 0**Hazard Rating:** 0=Least; 1=Slight; 2=Moderate; 3=High; 4=Severe

**General comment:** This document contains health, safety, and environmental information useful to emergency response agencies, health care providers, manufacturers, and workers/employees. It does not replace the precautionary language, use directions, or the storage and disposal information found on the product label.

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