



# MATERIAL SAFETY DATA SHEET

Date stamp: 29-Jul-2005

MSDS Ref. No.: 100099

Revision Number: 1

## 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  
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

## 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 Statement

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 %
di-Sodium-EDTA	139-33-3	<0.1
Potassium Phosphate	7778-77-0	10-30
Boric acid, H3BO3	10043-35-3	0.1-1.0
Sodium molybdate, Na2MoO4+2H2O	7631-95-0	<0.1
Iron EDTA	15708-41-5	1.0-5.0
Manganese EDTA	15375-84-5	0.1-1.0
Potassium chloride, KCl	7447-40-7	10-30
Copper sulphate, CuSO4	7758-98-7	0.1-1.0
Zinc Sulfate	7733-02-0	0.1-1.0
Ammoniumsulphate, (NH4)2SO4	7783-20-2	10-30
Urea	57-13-6	30-60

## 4. FIRST AID MEASURES

**Eye contact:** Hold eye open and rins 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:
Ammoniumsulphate, (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 inhalable fraction, listed under borate compounds, inorganic	Not Listed
Manganese EDTA	0.2 mg/m <sup>3</sup> TWA	Not Listed
Iron EDTA	1 mg/m <sup>3</sup> TWA as Fe	Not Listed
Copper sulphate, CuSO <sub>4</sub>	0.2 mg/m <sup>3</sup> TWA fume 1 mg/m <sup>3</sup> TWA dusts and mists, as Cu	0.1 mg/m <sup>3</sup> TWA fume 1 mg/m <sup>3</sup> TWA dusts and mists
Zinc Sulfate	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 respirable fraction, as Mo 10 mg/m <sup>3</sup> TWA inhalable fraction 3 mg/m <sup>3</sup> TWA respirable fraction	15 mg/m <sup>3</sup> TWA total dust 5 mg/m <sup>3</sup> TWA as Mo
di-Sodium-EDTA	Not Listed	Not Listed

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

**Personal Protective Equipment**

<b>Eye/face protection:</b>	Eye/face protection is not required, but is recommended in manufacturing situations where contact may occur.
<b>Skin and body protection:</b>	Wear suitable protective clothing if contact is anticipated during manufacturing. Imervious gloves.
<b>Respiratory protection:</b>	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>Appearance:</b>	Granular
<b>Color:</b>	Blue	<b>pH:</b>	3.0 - 4.0
<b>Bulk density:</b>	45-50 lbs/cu.ft.	<b>Solubility:</b>	Water solubility, Highly soluble (>80%)
<b>Flash point:</b>	Not applicable		

**10. STABILITY AND REACTIVITY**

**Chemically Stable:** Yes  
**Conditions to avoid:** Damp or wet conditions. Extreme heat.  
**Materials to avoid:** Oxidizing agents. Metals. Bases.  
**Hazardous decomposition products:** Toxic fumes and gases may be generated. Metal oxides possible.  
**Possibility of hazardous reactions:** 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:
Ammoniumsulphate, (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
Manganese EDTA	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	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
di-Sodium-EDTA	Not listed	Not listed	Not listed

**General Information**

**Ingestion:** Very low toxicity for humans and animals  
 Health injuries are not known or expected under normal use  
**Inhalation:** Health injuries are not known or expected under normal use

**12. ECOLOGICAL INFORMATION**

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

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Methods:** Apply as fertilizer to field. Dispose of in accordance with local regulations and national regulations.  
**Contaminated packaging:** 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.

**DOT**

**Proper shipping name:** Not regulated

**15. REGULATORY INFORMATION**

Components	CAS-No	CERCLA/SARA 313	CERCLA/SARA 302
Ammoniumsulphate, (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
Manganese EDTA	15375-84-5	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 2270 kg final RQ 4.54 kg final RQ 5000 lb final RQ	Not Listed
Zinc Sulfate	7733-02-0	1000 lb final RQ 454 kg final RQ 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
di-Sodium-EDTA	139-33-3	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.

**Revision date:**

08-Jun-2005

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