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

United States

Material Safety Data Sheet

Scotts Miracle-Gro 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 WATER SOLUBLE ALL PURPOSE PLANT FOOD 24-8-16

1. Product and company identification

MSDS # : 320000000133

2. Hazards identification

Physical state : solid [CRYSTALLINE POWDER.]

Color : Color-Pantone Blue.
Odor : Fertilizer
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
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.
See toxicological information (Section 11)

1000227089-01 | Released - 12/13/2013 by , Workflow

3. Composition/information on ingredients

Name	CAS number	%
Urea	57-13-6	>40 - <=70
Potassium chloride (KCl)	7447-40-7	>15 - <=30
Ferrate(1-), [[N,N'-1,2-ethanediylbis[N-[(carboxy-.kappa.O)methyl]glycinato-.kappa.N,.kappa.O]](4-)]-, sodium (1:1), (OC-6-21)-	15708-41-5	>1 - <=3

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:
carbon dioxide
carbon monoxide
nitrogen 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
Urea	**AIHA WEEL (1999-01-01)** Time Weighted Average (TWA) 10 mg/m3
Ferrate(1-), [[N,N'-1,2-ethanediylbis[N-[(carboxy-.kappa.O)methyl]glycinato-.kappa.N,.kappa.O]](4-)]-, sodium (1:1), (OC-6-21)-	**NIOSH REL (1994-06-01)** Time Weighted Average (TWA) 1 mg/m3 **OSHA PEL 1989 (1989-03-01)** PEL: Permissible Exposure Level 1 mg/m3 Form: Soluble **ACGIH TLV (1994-09-01)** TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 1 mg/m3

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 were significant contact is expected.
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 [CRYSTALLINE POWDER.]
Flash point	:	Not Applicable
Burning time	:	Not Applicable
Auto-ignition temperature	:	Not Applicable
Flammable limits	:	Not Applicable
Density	:	Not Applicable
Color	:	Color-Pantone Blue.
Odor	:	Fertilizer
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	:	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	-
Ferrate(1-), [[N,N'-1,2-ethanediylbis[N-[(carboxy-.kappa.O)methyl]glycinato-.kappa.N,.kappa.O]](4-)]-, sodium (1:1), (OC-6-21)-	LD50 Oral	Rat	> 5,000 mg/kg	-
Ferrate(1-), [[N,N'-1,2-ethanediylbis[N-[(carboxy-	LD50 Dermal	Rat	> 5,000 mg/kg	-

.kappa.O)methyl]glycinato-
.kappa.N,.kappa.O]](4-)]-, sodium
(1:1), (OC-6-21)-

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 - 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

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			

PG* : Packing group

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 Sulfuric acid ammonium salt (1:2): Acu Ferrate(1-), [[N,N'-1,2-ethanediylbis[N-[(carboxy-.kappa.O)methyl]glycinato-.kappa.N,.kappa.O]](4-)]-, sodium (1:1), (OC-6-21)-: Acu 1,2,3-Propanetricarboxylic acid, 2-hydroxy-: Acu
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: The following components are listed: Benzenesulfonic acid, dodecyl-, sodium salt (1:1)
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: Sulfuric acid ammonium salt (1:2)

New York : None of the components are listed.

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

Pennsylvania : The following components are listed: Sulfuric acid ammonium salt (1:2) Ferrate(1-), [[N,N'-1,2-ethanediylbis[N-[(carboxy-.kappa.O)methyl]glycinato-.kappa.N,.kappa.O]](4-)]-, sodium (1:1), (OC-6-21)-

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

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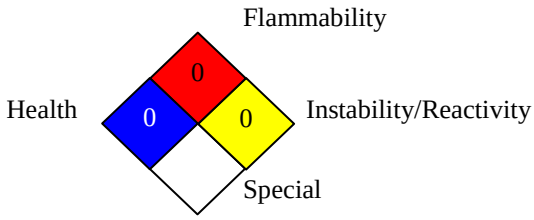
The customer is responsible for determining the PPE code for this material.

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



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Date of printing : Print date
Date of issue : Validity date***.

Version **:** Report version.Report version

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