



Micronutrient Supplement for Lawns

SAFETY DATA SHEET

CURRENT AS OF: 6/21/24

SECTION 1: PRODUCT / SUPPLIER IDENTIFICATION

PRODUCT CODE: 10009524
PRODUCT NAME: Micronutrient Supplement for Lawns
PRODUCT USE: Fertilizer
MFR INFO: The Andersons, Inc.
PO Box 119
Maumee, OH 43537
FOR EMERGENCY: (800) 757-8951
FOR INFORMATION: (419) 893-5050

SECTION 2: HAZARDS IDENTIFICATION

HAZARD SYMBOLS / STATEMENTS:



WARNING

**CAUSES SERIOUS EYE IRRITATION.
MAY CAUSE RESPIRATORY IRRITATION.
MAY CAUSE DROWSINESS OR DIZZINESS.**

HAZARD CLASSIFICATIONS:

EYE DAMAGE
SPECIFIC TARGET ORGAN TOXICITY
- SINGLE EXPOSURE

CATEGORY

2

3

INTERPRETATION

Causes serious eye irritation

May cause respiratory irritation
May cause drowsiness or dizziness

PRECAUTIONARY STATEMENTS:

- ***AVOID BREATHING DUST***
- ***WASH THOROUGHLY AFTER HANDLING***
- ***USE ONLY OUTDOORS OR IN WELL-VENTILATED AREA***
- ***WEAR EYE PROTECTION/FACE PROTECTION***
- ***WEAR PROTECTIVE GLOVES AND CLOTHING***
- ***IF IN EYES OR ON SKIN: RINSE AREA WITH PLENTY OF WATER, REMOVE CONTACT LENSES***
- ***IF EYE OR SKIN IRRITATION CONTINUES: SEEK MEDICAL ATTENTION***
- ***IF INHALED: MOVE TO FRESH AIR AND KEEP COMFORTABLE. SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS***
- ***CALL POISON CONTROL OR SEEK MEDICAL ATTENTION IF YOU FEEL UNWELL***

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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<u>CHEMICAL IDENTITY</u>	<u>SYNONYM</u>	<u>CAS NUMBER</u>	<u>CONCENTRATION (%)</u>
Magnesium Sulfate		7487-88-9	30-60
Magnesium Oxide		1309-48-4	10-30
Iron Oxide		1309-37-1	7-13
Manganese Sulfate		7785-87-7	5-10
Calcium carbonate, synthetic		471-34-1	3-7
Ferrous Sulfate		7720-78-7	1-5
Manganese Oxide		1344-43-0	1-5
Urea		57-13-6	1-5
Calcium Sulfate		7778-18-9	0.5-1.5
Dicopper Oxide		1317-39-1	0.1
Zinc Oxide		1314-13-2	0.1

SECTION 4: FIRST AID MEASURES

IF INHALED:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell. If symptomatic, move to fresh air.
IF ON SKIN:	Wash affected areas with soap and water. Seek medical attention if irritation persists. Wash contaminated clothing before re-use.
IF IN THE EYES:	Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
IF SWALLOWED:	Rinse mouth and seek medical attention. DO NOT INDUCE VOMITING unless directed by a medical professional.
SPECIAL TREATMENT:	None known
HEALTH HAZARDS:	See Section 11

SECTION 5: FIREFIGHTING MEASURES

EXTINGUISHING MEDIA:	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
UNSUITABLE EXTINGUISHING MEDIA:	Do not use water jet as an extinguisher, as this will spread the fire.
SPECIFIC FIRE HAZARDS:	During fire, gases hazardous to health may be formed.
SPECIAL FIREFIGHTING PROCEDURES:	Wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA). Use water spray to cool unopened containers.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

- SPILL / RELEASE PROCEDURES:** Contain material and place in containers for use as intended, or discard according to Federal, State and Local regulations.
- ENVIRONMENTAL PRECAUTIONS:** Prevent spilled material from entering storm drains or water bodies. If material enters a waterway, notify the appropriate authorities.
- PROTECTIVE EQUIPMENT:** Wear PPE according to Section 8

SECTION 7: HANDLING AND STORAGE

Wash hands after handling material. Do not eat, drink or smoke while handling the material. Avoid breathing dusts. Not intended for human consumption. Do not store with food or feedstuffs. Store in a cool, dry, well-ventilated area away from incompatible materials.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:

The following constituents are the only constituents of the product, which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Calcium sulfate (CAS 7778-18-9)	PEL	5 mg/m3 15 mg/m3	Respirable fraction. Total dust.
Iron oxide (CAS 1309-37-1)	PEL	10 mg/m3	Fume.
Magnesium oxide (CAS 1309-48-4)	PEL	15 mg/m3	Total particulate.
Manganese oxide (CAS 1344-43-0)	Ceiling	5 mg/m3	
Manganese sulfate (CAS 7785-87-7)	Ceiling	5 mg/m3	
Zinc oxide (CAS 1314-13-2)	PEL	5 mg/m3 5 mg/m3 15 mg/m3	Respirable fraction. Fume. Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Dicopper oxide (CAS 1317-39-1)	TWA	5 mg/m3 15 mg/m3 50 mppcf 15 mppcf	Respirable fraction. Total dust. Total dust. Respirable fraction.
Iron oxide (CAS 1309-37-1)	TWA	5 mg/m3 15 mg/m3 50 mppcf 15 mppcf	Respirable fraction. Total dust. Total dust. Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	5 mg/m3 15 mg/m3 50 mppcf 15 mppcf	Respirable fraction. Total dust. Total dust. Respirable fraction.

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US. ACGIH Threshold Limit Values Components

Components	Type	Value	Form
Calcium sulfate (CAS 7778-18-9)	TWA	10 mg/m ³	Inhalable fraction.
Ferrous sulfate (CAS 7720-78-7)	TWA	1 mg/m ³	
Iron oxide (CAS 1309-37-1)	TWA	5 mg/m ³	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m ³	Inhalable fraction.
Manganese oxide (CAS 1344-43-0)	TWA	0.1 mg/m ³ 0.02 mg/m ³	Inhalable fraction. Respirable fraction.
Manganese sulfate (CAS 7785-87-7)	TWA	0.1 mg/m ³ 0.02 mg/m ³	Inhalable fraction. Respirable fraction.
Zinc oxide (CAS 1314-13-2)	STEL TWA	10 mg/m ³ 2 mg/m ³	Respirable fraction. Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards Components

Components	Type	Value	Form
Calcium carbonate, synthetic (CAS 471-34-1)	TWA	5 mg/m ³ 10 mg/m ³	Respirable. Total
Calcium sulfate (CAS 7778-18-9)	TWA	5 mg/m ³ 10 mg/m ³	Respirable. Total
Dicopper oxide (CAS 1317-39-1)	TWA	1 mg/m ³ 0.1 mg/m ³	Dust and mist. Fume.
Ferrous sulfate (CAS 7720-78-7)	TWA	1 mg/m ³	
Iron oxide (CAS 1309-37-1)	TWA	5 mg/m ³	Dust and fume.
Manganese oxide (CAS 1344-43-0)	STEL TWA	3 mg/m ³ 1 mg/m ³	Fume. Fume.
Manganese sulfate (CAS 7785-87-7)	STEL TWA	3 mg/m ³ 1 mg/m ³	Fume. Fume.
Zinc oxide (CAS 1314-13-2)	Ceiling STEL TWA	15 mg/m ³ 10 mg/m ³ 5 mg/m ³ 5 mg/m ³	Dust. Fume. Dust. Fume.

US. Workplace Environmental Exposure Level (WEEL) Guides Components

Components	Type	Value	Form
Urea (CAS 57-13-6)	TWA	10 mg/m ³	Total particulate.

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PERSONAL PROTECTIVE EQUIPMENT / PROTECTION MEASURES / CONTROLS:

RESPIRATORY PROTECTION:	NIOSH approved respirator, if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.
EYE PROTECTION:	Safety glasses with sideshields, goggles, or faceshield
SKIN PROTECTION:	Appropriate for the task. Impervious and compatible with material
VENTILATION:	Use with adequate ventilation

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Gray granular mix with no appreciable odor
pH:	Not Applicable
MELTING POINT:	Not applicable
BOILING POINT:	Not available
FLASH POINT:	Not flammable
EVAPORATION RATE:	Not available
FLAMMABLE LIMITS:	Not applicable
VAPOR PRESSURE:	Not available
VAPOR DENSITY:	Not available
SPECIFIC GRAVITY:	Not available
SOLUBILITY (IN WATER):	Soluble
PARTITION COEFFICIENT:	Not available
AUTOIGNITION TEMP:	Not available
DECOMPOSITION TEMP:	Not available
ODOR THRESHOLD:	Not available
VISCOSITY:	Not available

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Product is stable.
CONDITIONS TO AVOID:	Contact with incompatible materials.
INCOMPATIBILITY:	Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	No hazardous decomposition products are known.

SECTION 11: TOXICOLOGICAL INFORMATION

INHALATION:	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Dust may irritate respiratory system. Prolonged inhalation may be harmful.
SKIN CONTACT:	Dust or powder may irritate skin.
EYE CONTACT:	Causes serious eye irritation.
INGESTION:	May cause discomfort if swallowed.
CARCINOGENICITY:	Not classifiable as to its carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Iron oxide (CAS 1309-37-1) 3 Not classifiable as to carcinogenicity to humans.

MICRONUTRIENT SUPPLEMENT FOR LAWNSINGREDIENT TOXICITY RANGES:

Components	Species	Test Results
Calcium carbonate, synthetic (CAS 471-34-1) Acute Oral LD50	Rat	6450 mg/kg
Calcium sulfate (CAS 7778-18-9) Acute Inhalation LC50	Rat	> 3.26 mg/l, 4 Hours
Oral LD50	Rat	> 1581 mg/kg
Dicopper oxide (CAS 1317-39-1) Acute Dermal LD50	Rat	> 2000 mg/kg OECD 402
Inhalation LC50	Rat	3.34 mg/l, 4 h OECD 403
Oral LD50	Rat	300 - 500 mg/kg OECD 423
Magnesium oxide (CAS 1309-48-4) Acute Oral LD50	Rat	3870 - 3990 mg/kg
Manganese sulfate (CAS 7785-87-7) Acute Oral LD50	Rat	1470 mg/kg
Urea (CAS 57-13-6) Acute Oral LD50	Rat	8471 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Calcium carbonate, synthetic (CAS 471-34-1) Aquatic Acute Fish	LC50 Western mosquitofish (<i>Gambusia affinis</i>)	> 56000 mg/l, 96 Hours

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Dicopper oxide (CAS 1317-39-1)

Aquatic

Algae	ErC50	Scenedesmus subspicatus	65 mg/l, 96 h OECD 201
Crustacea	EC50	Daphnia magna	0.51 mg/l, 48 h OECD 202
Fish	LC50	Oncorhynchus mykiss	0.207, 96 h mg Cu/l, OECD 203

Magnesium sulfate (CAS 7487-88-9)

Aquatic

Crustacea	EC50	Tubificid worm (Tubifex tubifex)	149.6 - 191.36 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	2610 - 3080 mg/l, 96 hours

Urea (CAS 57-13-6)

Aquatic

Crustacea	EC50	Water flea (Daphnia magna)	3910 mg/l, 48 hours
Fish	LC50	Giant gourami (Colisa fasciata)	5 mg/l, 96 hours

Zinc oxide (CAS 1314-13-2)

Aquatic

Crustacea	LC50	Water flea (Daphnia magna)	0.098 mg/l, 48 Hours
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SECTION 13: DISPOSAL CONSIDERATIONS

Use product for intended purpose where possible. Dispose of in accordance with all national, regional / state, and local regulations.

SECTION 14: TRANSPORT INFORMATION

This product is not regulated as a transportation hazard.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 304: This material does not contain any components with a section 304 EHS RQ.

SARA 311 / 312: Acute Health Hazard

SARA 313: The following components are subject to reporting levels established by SARA Title III, Section 313:

<u>CHEMICAL NAME</u>	<u>CAS No.</u>	<u>% BY WEIGHT</u>
Manganese Oxide	1344-43-0	1-5
Manganese Sulfate	7785-87-7	5-10

CERCLA:

<u>CHEMICAL NAME</u>	<u>CAS No.</u>	
Dicopper oxide	CAS 1317-39-1	Listed.
Ferrous sulfate	CAS 7720-78-7	Listed.
Manganese oxide	CAS 1344-43-0	Listed.
Manganese sulfate	CAS 7785-87-7	Listed.
Zinc oxide	CAS 1314-13-2	Listed.

TSCA: All components of the mixture on the TSCA 8(b) inventory are designated "active".

US STATE REGULATIONS

RIGHT-TO-KNOW:	CHEMICAL NAME	CAS No.	STATES
	Calcium sulfate	7778-18-9	(MA, NJ, PA, IL)
	Dicopper oxide	1317-39-1	(NJ, PA)
	Ferrous sulfate	7720-78-7	(MA, NJ, PA, RI)
	Iron oxide	1309-37-1	(MA, NJ, PA, RI)
	Magnesium oxide	1309-48-4	(MA, NJ, PA, RI, CA)
	Magnesium sulfate	7487-88-9	(NJ, PA, CA, MN)
	Manganese oxide	1344-43-0	(MA, NJ, PA, RI, CA, IL, MN)
	Manganese sulfate	7785-87-7	(NJ, PA, CA, MN)
	Zinc oxide	1314-13-2	(MA, NJ, PA, RI)

CALIFORNIA PROP 65: This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

INTERNATIONAL INVENTORIES

Country(s) Or Region	Inventory Name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

* "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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SECTION 16: OTHER INFORMATION

NFPA RATINGS:	HEALTH	1
	FLAMMABILITY	1
	INSTABILITY	0
HMIS RATINGS:	HEALTH	1
	FLAMMABILITY	1
	INSTABILITY	0

PREPARATION & VERSION INFORMATION

Version 001 – SDS originally created 06/21/2024 Prepared By: DBA EHS Consulting

The Andersons cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. The information and recommendations contained in this Safety Data Sheet relate only to the specific material referred to herein (the "Material") and does not relate to the use of such Material in combination with any other material or process. The information and recommendations contained herein are believed to be current and correct as of the date prepared. However, the information and recommendations are presented without warranty, representation or license of any kind, express or implied, with respect to its accuracy, correctness or completeness, and the seller, supplier and manufacturer of the Material and their respective affiliates disclaim all liability for reliance on such information and recommendations. This Data Sheet is not a guarantee of safety. A buyer or user of the Material (a "Recipient") is responsible for ensuring that it has all current information necessary to safely use the Material for its specific purpose. Furthermore, the Recipient assumes all risk in connection with the use of the Material. The Recipient assumes all responsibility for ensuring the Material is used in a safe manner in compliance with applicable environmental, health, safety and security laws, policies and guidelines. The Supplier does not warrant the merchantability of the Material or the fitness of the Material for any particular use and assumes no responsibility for injury or damage caused directly or indirectly by or related to the use of the Material.