



Super Rainbow® Plant Food 5-22-6

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 11/7/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Super Rainbow® Plant Food 5-22-6
Product code : I000059, I000231

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertilisers
Recommended use : Fertilizers

1.3. Supplier

Distributor

Rainbow Fertilizer LLC, a division of TIMAC AGRO USA, Inc.
1011 Oak Avenue
Americus, GA 31709, Georgia 31719
USA
T 1-800-763-0334
www.rainbowplantfood.com

1.4. Emergency telephone number

Country/Area	Organization/Company	Address	Emergency number	Comment
Americas	3E		+1-760-476-3962 (Access code : 333021)	(24/7)
USA	USA POISON CONTROL CENTER (24h/7d)		1-800-222-1222	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2 H315 Causes skin irritation
Serious eye damage/eye irritation Category 2B H320 Causes eye irritation
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H315 - Causes skin irritation
H320 - Causes eye irritation
Precautionary statements (GHS US) : P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P302+P352 - If on skin: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

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contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
Monoammonium phosphate		CAS-No.: 7722-76-1	25 – 50	Skin Irrit. 2, H315 Eye Irrit. 2B, H320
Calcium sulphate, dihydrate		CAS-No.: 10101-41-4	5 – 10	Not classified
Manganese oxide		CAS-No.: 1344-43-0	1 – 5	Not classified
Calcium carbonate		CAS-No.: 1317-65-3	1 – 5	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice. Prompt treatment is essential to minimize damage.
First-aid measures after inhalation	: Move to fresh air in case of accidental inhalation. Seek medical attention if ill effect develops.
First-aid measures after skin contact	: Wash off with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Wash immediately with plenty water (during 20 minutes), also under eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist immediately, even if there are no immediate symptoms. If possible show him this sheet. Failing this, show him the packaging or label.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting without medical advice. Seek medical attention if ill effect develops.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : see section(s) : 2.1/2.3).

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : water, carbon dioxide (CO₂), powder and foam. Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

- Fire hazard : Not flammable.
- Explosion hazard : No direct explosion hazard.
- Hazardous decomposition products in case of fire : Thermal decomposition generates : fume.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Contain the extinguishing fluids by bunding.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Complete protective clothing. EN 469. Self-contained breathing apparatus.
- Other information : Relevant water authorities should be notified of any large spillage to water course or drain.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area.

6.1.1. For non-emergency personnel

- Emergency procedures : Do not get in eyes, on skin, or on clothing. Do not breathe dust. Evacuate unnecessary personnel. Mark the danger area. Mechanically ventilate the spillage area. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate area. Stop leak if safe to do so. Dike and contain spill.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Clean up immediately by sweeping or vacuum. Minimize generation of dust. Gather the product and place it in a spare container that has been suitably labeled.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe dust. Avoid contact with skin and eyes. Use personal protective equipment as required. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

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Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : The floor of the depot should be impermeable and designed to form a water-tight basin. Comply with applicable regulations.

Storage conditions : Store in dry, cool, well-ventilated area. Protect from moisture. Keep out of reach of children.

Incompatible products : Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.

Storage temperature : Store at ambient temperature

Heat-ignition : Keep away from open flames, hot surfaces and sources of ignition.

Information on mixed storage : Keep away from food, drink and animal feeding stuffs.

Special rules on packaging : Keep only in original container. Store in a closed container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Manganese oxide (1344-43-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 ppm
Calcium sulphate, dihydrate (10101-41-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Calcium sulfate, the dihydrate
ACGIH OEL TWA	10 mg/m³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: Nasal symptoms
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	
Local name	Calcium sulfate
OSHA PEL TWA	15 mg/m³ (Total dust) 5 mg/m³ (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Calcium carbonate (1317-65-3)	
USA - OSHA - Occupational Exposure Limits	
Local name	Calcium Carbonate (Limestone; Marble)
OSHA PEL TWA	15 mg/m³ (Total dust) 5 mg/m³ (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Local exhaust and general ventilation must be adequate to meet exposure standards.

Environmental exposure controls : Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Assume that emissions are compliant with all applicable air pollution control regulations. Comply with applicable regulations.

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8.3. Individual protection measures/Personal protective equipment

Eye protection:

Safety glasses with side guards should be worn to prevent injury from airborne particles and/or other eye contact with this product

Type	Field of application	Characteristics
Safety goggles	Dust	With side shields

Skin and body protection:

Skin protection appropriate to the conditions of use should be provided. In case of repeated or prolonged contact wear gloves

Type
Gloves

Respiratory protection:

Where excessive dust may result, wear approved mask

Device	Filter type	Condition
Dust mask	Type P2	Dust protection

Personal protective equipment symbol(s):



Other information:

See Heading 7 : 7.1. Precautions for safe handling.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granulate.
Color	: Gray light brown
Odor	: Odorless
Odor threshold	: No data available
pH	: 5.5 – 6
pH solution concentration	: 10 %
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 58 – 65 lb/ft³
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available

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Explosive properties : No data available
Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong acids. Strong bases. oxidizing agents (peroxides, chromates, dichromates). Reducing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. In case of fire: See Heading 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)
Additional information : No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Manganese oxide (1344-43-0)	
LD50 oral rat	> 2000 mg/kg (OECD 420 method)
LC50 Inhalation - Rat	> 5.35 mg/l (OECD 403 method)
Calcium sulphate, dihydrate (10101-41-4)	
LD50 oral rat	> 1581 mg/kg body weight (OECD 420 method)
LC50 Inhalation - Rat	> 2.61 mg/l (OECD 403 method)
Monoammonium phosphate (7722-76-1)	
LD50 oral rat	> 2000 mg/kg (OECD 425 method)
LD50 dermal rat	> 5000 mg/kg (OECD 402 method)
LC50 Inhalation - Rat	> 5 mg/l (OECD Guideline 403 with diammonium hydrogenorthophosphate; EPA with calcium bis(dihydrogenorthophosphate))

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Skin corrosion/irritation : Causes skin irritation.
pH: 5.5 – 6

Monoammonium phosphate (7722-76-1)	
pH	3 – 5

Serious eye damage/irritation : Causes eye irritation.
pH: 5.5 – 6

Monoammonium phosphate (7722-76-1)	
pH	3 – 5

Respiratory or skin sensitization : Not classified (Based on available data, the classification criteria are not met)
No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met
No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)
No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic : No data available

Monoammonium phosphate (7722-76-1)	
Viscosity, kinematic	Not applicable

Symptoms/effects : see section(s) : 2.1/2.3).

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. Do not allow uncontrolled discharge of product into the environment.

Calcium sulphate, dihydrate (10101-41-4)	
LC50 - Fish [1]	> 1970 mg/l Pimephales promelas
EC50 - Crustacea [1]	> 79 mg/l daphnia, (OECD 202 method)
ErC50 algae	> 79 mg/l Selenastrum capricornutum, (OECD 201 method)

Monoammonium phosphate (7722-76-1)	
LC50 - Other aquatic organisms [1]	> 1700 mg/l Single Superphosphate
EC50 - Other aquatic organisms [1]	> 100 mg/l (OECD 201 method) Similar substances

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12.2. Persistence and degradability

Super Rainbow® Plant Food 5-22-6	
Persistence and degradability	Not established.
Manganese oxide (1344-43-0)	
Persistence and degradability	Not established, Not relevant.
Calcium sulphate, dihydrate (10101-41-4)	
Persistence and degradability	Not established.
Calcium carbonate (1317-65-3)	
Persistence and degradability	Not established.
Monoammonium phosphate (7722-76-1)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Super Rainbow® Plant Food 5-22-6	
Bioaccumulative potential	Not established.
Manganese oxide (1344-43-0)	
Bioaccumulative potential	Not established. Not relevant.
Calcium sulphate, dihydrate (10101-41-4)	
Bioaccumulative potential	Bioaccumulation unlikely.
Calcium carbonate (1317-65-3)	
Bioaccumulative potential	Not established.
Monoammonium phosphate (7722-76-1)	
Partition coefficient n-octanol/water (Log Pow)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not applicable
Bioaccumulative potential	Low bioaccumulation potential. Data sources : Safety Data Sheet Supplier.

12.4. Mobility in soil

Calcium sulphate, dihydrate (10101-41-4)	
Ecology - soil	Small adsorption.
Monoammonium phosphate (7722-76-1)	
Ecology - soil	Not applicable. Safety Data Sheet Supplier.

12.5. Other adverse effects

Other adverse effects : May cause eutrophication at very low concentration.
Other information : No other effects known.

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SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Discharging into rivers and drains is forbidden.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / TMD / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Not regulated
Proper Shipping Name (TDG)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	: Not regulated
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TDG

Transport hazard class(es) (TDG)	: Not regulated
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IMDG

Transport hazard class(es) (IMDG)	: Not regulated
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IATA

Transport hazard class(es) (IATA)	: Not regulated
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14.4. Packing group

Packing group (DOT)	: Not regulated
Packing group (TDG)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated

14.5. Environmental hazards

Other information	: No supplementary information available.
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14.6. Special precautions for user

DOT

Not regulated

TDG

Not regulated

IMDG

Not regulated

IATA

Not regulated

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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Manganese oxide	1344-43-0	Present	Active	
Calcium sulphate, dihydrate	10101-41-4	Present	Active	
Calcium carbonate	1317-65-3	Present	Active	
Monoammonium phosphate	7722-76-1	Present	Active	

15.2. International regulations

CANADA

Manganese oxide (1344-43-0)

Listed on the Canadian DSL (Domestic Substances List)

Calcium sulphate, dihydrate (10101-41-4)

Listed on the Canadian DSL (Domestic Substances List)

Calcium carbonate (1317-65-3)

Listed on the Canadian NDSL (Non-Domestic Substances List)

Monoammonium phosphate (7722-76-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

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Ensure all national/local regulations are observed

Manganese oxide (1344-43-0)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Calcium carbonate (1317-65-3)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

No additional information available

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SECTION 16: Other information

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Data sources : Safety Data Sheet Supplier.

Full text of hazard classes and H-statements	
H315	Causes skin irritation
H320	Causes eye irritation

Abbreviations and acronyms	
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
SDS	Safety Data Sheet
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
ED	Endocrine disruptor

NFPA health hazard

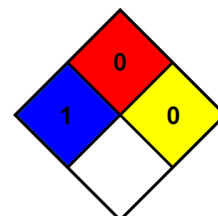
: 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



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Hazard Rating	
Health	: 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability	: 0 Minimal Hazard - Materials that will not burn
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal protection	: E - Safety glasses, Gloves, Dust respirator

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.