

Synchro

Safety Data Sheet

according to SOR/2015-17, Hazardous Products Regulations (HPR), as amended by SOR/2022-272
Issue date: 12-12-2025 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : Synchro
Product code : S50
Formula : NH_4MgPO_4

1.2. Other means of identification

Other means of identification : Ammonium magnesium orthophosphate; Phosphoric acid, ammonium magnesium salt (1:1:1)

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Fertilizers

1.4. Supplier's details

Manufacturer

Ostara, Inc.
1001 N. Warson Rd, Ste. 200
St. Louis, MO 63132
US
T (604) 408-6697
OstaraRegulatory@ostara.com

Supplier

Ostara Nutrient Recovery Technologies Inc.
855 - 2 St. S.W., Suite 3500
Calgary, Alberta V6B 5L1
Canada
T 604-408-6697
OstaraRegulatory@ostara.com

1.5. Emergency phone number

Emergency number : For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night: 1-800-424-9300 (Toll Free, USA) / 703-527-3887 (Virginia, USA)
CCN 849806
Back-up Emergency Number: +1 703-741-5970 (Washington, DC)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Not classified

2.2. GHS label elements, including precautionary statements

GHS CA labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Magnesium Ammonium Phosphate	Ammonium magnesium orthophosphate	CAS-No.: 7785-21-9	50	Not classified
Ammonium dihydrogenorthophosphate	-	CAS-No.: 7722-76-1	50	Not classified

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

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Induce artificial respiration with mask fitted with one-way valve or other suitable device; not mouth-to-mouth. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin areas with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Call a poison center/doctor/physician if you feel unwell.
First-aid measures general	: First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Give artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device but, not mouth-to-mouth. If you feel unwell, seek medical advice.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Dust may cause irritation of the mucous membranes and upper respiratory tract.
Symptoms/effects after skin contact	: Product dust may cause mechanical irritation to the skin and mucous membranes.
Symptoms/effects after eye contact	: Dust from this product may cause eye irritation.
Symptoms/effects after ingestion	: Dusts from the product, if present, may cause throat irritation.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO ₂).
Unsuitable extinguishing media	: Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Nitrogen oxides. Magnesium oxide. Phosphorus oxides.

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5.3. Special protective actions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Move containers from fire area if it can be done without personal risk. Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid all personal contact including breathing in the dust. Do not take actions involving personal risks. Clean up any spills as soon as possible, using an absorbent material to collect it. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.
Environmental precautions	: Avoid negligent or unplanned release to the environment.

6.2. Methods and materials for containment and cleaning up

For containment	: Using a clean shovel, put the material in a dry container and cover without compressing it. Minimize generation of dust.
Methods for cleaning up	: Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal. Decontaminate surfaces and equipment with water and detergent. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations. Do not touch or walk on the spilled product.

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	: Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a cool, dry and well-ventilated area away from incompatible substances.
Incompatible materials	: Strong oxidizing agents.
Storage temperature	: ≤ 55 °C / 131 °F

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Handle in accordance with good industrial hygiene and safety procedures. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
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Environmental exposure controls : Avoid negligent or unplanned release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Personal protective equipment should be chosen according to national standards and in discussion with the supplier of the protective equipment. Wear recommended personal protective equipment.

Hand protection:

No protection is ordinarily required under normal conditions of use. Workplace: Chemically resistant protective gloves

Eye protection:

No special eye protection equipment recommended under normal conditions of use. Where excessive dust may result, wear goggles

Skin and body protection:

Skin protection is not ordinarily required beyond standard work clothes. Body protection should be chosen depending on activity and possible exposure

Respiratory protection:

No respiratory protection needed under normal use conditions. In case of emergency: Self-contained breathing apparatus

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Granules.
Color	: Gray Brown
Odor	: No data available
Odor threshold	: No data available
pH	: 6.5 – 6.9
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: 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
Solubility	: Water: 50 %
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

Magnesium Ammonium Phosphate

Particle characteristics	No data available
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Ammonium dihydrogenorthophosphate

Particle characteristics	No data available
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9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions of use.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Incompatible materials.
Incompatible materials	: Strong oxidizing agents.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates: Phosphorus oxides. Magnesium oxide. Nitrogen oxides.
Hardening time:	: No additional information available

SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Magnesium Ammonium Phosphate

LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 5 mg/l

Ammonium dihydrogenorthophosphate

LD50 oral rat	> 2000 mg/kg body weight
LD50 dermal rat	> 5000 mg/kg body weight
LC50 Inhalation - Rat	> 5 mg/l air

Skin corrosion/irritation	: Not classified. pH: 6.5 – 6.9
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Magnesium Ammonium Phosphate

pH	6.5 – 6.9
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Serious eye damage/irritation	: Not classified pH: 6.5 – 6.9
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Magnesium Ammonium Phosphate

pH	6.5 – 6.9
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Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

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STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: Dust may cause irritation of the mucous membranes and upper respiratory tract.
Symptoms/effects after skin contact	: Product dust may cause mechanical irritation to the skin and mucous membranes.
Symptoms/effects after eye contact	: Dust from this product may cause eye irritation.
Symptoms/effects after ingestion	: Dusts from the product, if present, may cause throat irritation.

SECTION 12 Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

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Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances.
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Magnesium Ammonium Phosphate

Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances.
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Ammonium dihydrogenorthophosphate

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

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.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations. Dispose of this material and its container at hazardous or special waste collection point. Refer to all applicable national, international and local regulations or provisions.
Additional information	: Do not re-use empty containers.
Ecological waste information	: Avoid negligent or unplanned release to the environment.

SECTION 14 Transport information

In accordance with TDG / IMDG / IATA

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TDG	IMDG	IATA
14.1. UN Number		
Not regulated for transport		
14.2. UN Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group, if applicable		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

TDG

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

Magnesium Ammonium Phosphate (7785-21-9)

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

Ammonium dihydrogenorthophosphate (7722-76-1)

Listed on the Canadian DSL (Domestic Substances List)

Magnesium Ammonium Phosphate (7785-21-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

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Ammonium dihydrogenorthophosphate (7722-76-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16 Other Information

Issue date : 12-12-2025

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.