

SAFETY DATA SHEET

NoroTec AB

Date of Issue: May 28, 2020

Version no: 6.0

Replaces: February 18, 2016

NoroTec™ Magnesium

P1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

1.1 Product identifier

PRODUCT NAME:	NoroTec™ Magnesium
Group Name	Fertilisers based on magnesium

1.2 Relevant identified uses of the substance or preparation and uses advised against

Use of the product	Fertilizers against magnesium deficiency in agricultural crops.
Limited conditions of use	Not applicable

1.3 Details of the supplier of the safety data sheet

Company	NoroTec AB
Address	Långebergavägen 40
Zip Code / City or Town	SE-256 69 Helsingborg
Country	Sweden
E-mail	mail@norotec.se
Telephone	+46 411 406 60
Contact person	Fredrik Olsheden

1.4 Emergency telephone number

Emergency telephone number	Call 112 or call directly +46 (0)8 -33 12 31.- Poisson Information Centre, Sweden
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2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or preparation

Product definition: Mixture

Classification according to (EG) 1272/2008

EUH210

2.2 Label Information

Label elements according to (EG) 1272/2008

The mixture requires no labelling.

Hazard Statement

EUH210	Safety Data Sheet available on request.
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Precautionary statements

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Contains

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2.3 Other hazards

PBT / vPvB	The product contains no PBT or vPvB substances.
Other hazards which do not cause classification	Not applicable.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance (UVCB)

No	Component/ ingredient name	EC-number	CAS- number	REACH registration number	Conc. (weight-%)	Classification CLP]
1	Magnesium nitrate	233-826-7	10377-60-3	01-2119491164-38- 0000	50 - 65	Ox. Sol. 2; H272
2	Citric acid	201-069-1	77-92-9	01-2119457026-42- 0000	2-4	Eye Irrit. 2; H319
3	Urea	200-315-5	57-13-6	01-2119463277-33- 0000	5 - 10	Not classified as dangerous
4	Water	231-791-2	7732-18-5	--	20-45	Not classified as dangerous

See section 16 for the full text of the hazard statements declared above. Occupational exposure limits are mentioned under section 8, if such exist. The mixture exists as an aqueous solution, which makes the substance magnesium nitrate not exhibiting any oxidizing properties.

4. FIRST AID

4.1 Description of first aid measures

Inhalation	Not relevant.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with water.
Eye contact	Hold eyelids apart. Rinse with a gentle stream of water for up to 5 minutes. Consult a physician if irritation persists.
Ingestion	Rinse mouth with water. Drink a few glasses of water or milk. Contact physician if a larger quantity has been ingested.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation	Not relevant.
Skin contact	Repeated exposure causes dry skin, irritation, redness and cracking.
Eye contact	Splashes may cause reversible irritation.
Ingestion	Ingestion of large amounts can cause nausea and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	Treat symptomatically.
Specific treatments	No specific treatment.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

General information	Non-flammable product.
5.1.1 Suitable extinguishing media	The product is not flammable. Choose extinguishing agents based on the surrounding fire
5.1.2 Unsuitable extinguishing media	None

5.2 Special hazards arising from the substance or preparation

Hazards from the substance or preparation	No fire or explosion risk exists.
Hazardous thermal decomposition products	Oxides of magnesium and nitrogen.

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5.3 Advice to firefighters

5.3.1. Special protective actions for fire-fighters	Avoid inhalation of toxic fumes.
5.3.2 Special protective equipment for fire-fighters	Fire-fighters should use chemically protective clothing and self-contained breathing apparatus.
5.3.3 Further information	If possible, move the product from the fire area. Otherwise cool containers exposed to flames with water until fire is out. Do not allow run-off from firefighting to enter drains or water courses

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide good ventilation. Keep people away from the spill area. Avoid contact with skin and eyes.

6.1.1 For non-emergency personnel

Use appropriate protective equipment, see section 8.

6.1.2 For emergency responders

Small spills: Use appropriate personal protective equipment, see section 8.
For larger spills: Use chemically protective clothing and breathing apparatus.

6.2 Environmental precautions

Avoid dispersal of spilt material in waterways and sewers or contaminate of soil and vegetation.

6.3 Methods and materials for containment and cleaning up

Dike spills using vermiculite, sand or other inert absorbent material and place in sealable containers.
Clean up area with suitable detergent, do not use solvents.
Collected material should be disposed of as hazardous waste, see section 13.

6.4 Reference to other sections

See section 8 for personal protective equipment.

See section 13 for handling of waste materials.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling	Provide good ventilation. Avoid contact with skin and eyes Avoid breathing vapours. Do not eat or drink or smoke while handling the product. Wash hands before break and at the end of work shift.
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7.2 Conditions for safe storage, including any incompatibilities

Storage conditions	Keep dry and cool in a well ventilated place.
Conditions to avoid	Protected against frost. Avoid direct sunlight.

7.3 Special characteristics and risks

Conditions to avoid	Keep away from strong alkaline solution and strong oxidizing agents.
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7.4 Specific end use(s)

Specific use (s)	Fertiliser.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limit:

Substance	CAS no.	Range	ppm	mg/m ³	Year	Remarks
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8.2 Exposure Control

Provide good ventilation. Avoid contact with skin and eyes. Do not eat, drink or smoke while working.

Wash hands before break and at the end of work shift.

8.2.1 Appropriate technical controls

Not relevant for this product.

8.2.2 Individual protective measures, e.g. protective personal equipment.

8.2.2.1 Respiratory protection	Normally not needed. At risk of inhalation of spray mist use respiratory equipment (half mask with particle filter P2).
8.2.2.2 Eye/face protection	If risk of splashing wear tight-fitting safety goggles.
8.2.2.3 Hand protection	At the risk of prolonged and repeated contact with the product use protective gloves made of butyl rubber.
8.2.2.4 Body protection	Wear appropriate protective clothing.
8.2.2.5 Thermal hazards	The product does not constitute a thermal hazard. No special measures required.

8.2.2 Environmental exposure controls

Avoid release to the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Slight yellowish brown
Odour	Practically odourless.
Odour threshold	Not available
Solubility	Completely soluble in water
pH (product)	About 2,0
Melting point /freezing point	Not available
Initial boiling point and kitchen range	100°C
Flash point	> 100°C
Evaporation rate	Not available
Flammable (solid, gas)	Not applicable
Burning time	Not applicable
Burning rate	Not applicable
Upper / lower flammability or explosive limits	Not explosive
Steam pressure	Not available
Vapor Density	Not available
Relative density	1,23 g /cm ³ at 20 ° C
Octanol / water	Not applicable
Ignition temperature	Not relevant
Decomposition Temperature	Not available

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9.2 Other information

VOC	Not applicable
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10. STABILITY AND REACTIVITY

10.1 Reactivity	Non-reactive.
10.2 Chemical stability	Chemically stable under normal conditions of use and storage.
10.3 Possibility of hazardous reactions	None.
10.4 Conditions to avoid	None.
10.5 Incompatible materials	Strong alkaline solutions and strong oxidizing agents.
10.6 Hazardous decomposition products	Thermal decomposition results in the formation of oxides of magnesium and nitrogen.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Not harmful by skin contact. Not harmful if inhaled. Not harmful if swallowed.

Acute toxicity of the product

Exposure route	Value/Unit	Species	Exp. time	Method/note
LD50, oral	> 2.000 mg/kg	rat	--	ATE-mix, calculated
LD50, dermal	> 2.000 mg/kgl	rat	--	ATE-mix, calculated

Irritation/Corrosion

Assessment of skin corrosion/irritation, classification

Non-irritating.

Assessment of eye damage or irritation, classification

Non-irritating.

11.2 Potential acute effects

Inhalation	Not relevant.
Skin contact	Repeated exposure gives rise to dry skin, irritation, redness and cracks.
Eye contact	Splashes may cause reversible irritation.
Ingestion	Ingestion of larger quantity can cause nausea and vomiting.

11.3 Sensitization by inhalation/skin contact

Assessment of sensibility for the product:

The product does not contain any sensitizing agents.

11.4.1 Germ cell mutagenicity

Assessment of mutagenicity for the product:

Based on available data, the classification criteria are not met.

11.4.2 Carcinogenicity

Assessment of carcinogenicity for the product:

Based on available data, the classification criteria are not met.

11.4.3 Reproduction toxicity

Assessment of reproduction toxicity for the product:

Based on available data, the classification criteria are not met.

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11.5.1 Specific target organ toxicity (single exposure)

STOT assessment single dos toxicity:

Shall not be classified as a specific target organ toxicant (single exposure).

11.5.2 Repeated dose toxicity and specific organ toxicity (repeated exposure)

STOT assessment of repeated dose toxicity:

Shall not be classified as a specific target organ toxicant (repeated exposure).

11.6 Aspiration

Shall not be classified as presenting an aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1. 1 Toxicity

Acute aquatic toxicity of the product

Test	Value / unit	Test Method	Exp. time	Species
Fish LC50	> 100 mg/l	--	Regnbågslax	Fathead Minnow
Daphnia EC50	> 100 mg/l	---	Daphnia magna	Daphnia
Alg IC50	> 100 mg/l	--		Green alga

Acute aquatic toxicity of copper nitrate

The product has a low acute toxicity to aquatic organisms.

12.2 Persistence and degradability

Conclusion/Summary	The product contains the elements magnesium. Elements are by definition not biodegradable
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12.3 Bioaccumulative potential

Conclusion/Summary	Bioaccumulation of magnesium can be expected
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12.4 Mobility in soil

The product is mobile in the soil profile due to its high water solubility.

Adsorption to solid soil particles is not expected.

12.5 Results of PBT and vPvB assessment

The product contains no substances which are identified as a PBT or vBvP substance (substance that is persistent, bioaccumulative and toxic).

12.6 Other adverse effects

None known

12.7 Environmental information/conclusion

The mixture is classified as not dangerous for the environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Method of disposal	Residues and waste are not hazardous waste.
Hazardous waste	No.

Packaging

Method of disposal	Uncleaned empty packaging is not hazardous waste.
Hazardous waste	No.

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Special precautions	Not relevant
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European Waste Catalogue (EWC)

EWC Waste Code	Type of waste
02 01 09*	Agrochemical waste other than those mentioned in 02 01 08.
15 01 02*	Plastic packaging.

14. TRANSPORT INFORMATION

This product is not classified as dangerous goods.

UN-no:	--
Proper Shipping Name:	--

ADR / RID (Road / Rail Transport)

Class:	--	Packing Group:	--
Label:	--	Environmental hazards:	--
Hazard number:	--	Tunnel restriction	--

IMDG (SEA)

Class:	--	Packing Group:	--
Label	--	EmS	--
Marine Pollutant:	--		

IATA (Air Transport)

Class:	--	Packing Group:	--
Label:	--	Environmental hazards:	--

14.7 Bulk transport in accordance with annex II of convention Marpol 73/78 and IBC-Code

Not applicable.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or preparation

Classification and labelling according to (EG) 1272/2008 is available under section 2. This Safety Data Sheet is prepared in accordance with Annex II of the REACH Regulation (EC) 1907/2006 and Regulation (EC) No. 453/2010 Appendix I.

Authorisation	Not required.
Restriction in use	None.
Other EU legislation	This product contains no ozone depleting substance and no persistent organic pollutant.

15.2 Chemical Safety Assessment

Not relevant for mixtures.

16. OTHER INFORMATION

THE PRODUCER'S NOTES

This safety data sheet is provided by MM-Support AB, Sweden, and approved by NoroTec AB, Sweden.

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LIST OF HAZARD STATEMENTS MENTIONED UNDER SECTION 2 and 3

No.	Text
H272	May intensify fire; oxidiser.
H319	Causes serious eye irritation.

Revision overview

Version	Revision date	Responsible	Changes in section
v.2	March 20, 2009	Erland Jordow	--
v.3	February 2, 2010	Erland Jordow	--
v.4	March 15, 2013	Bo Isacsson	The entire safety data sheet has been updated to REACH II format
v.5	February 18, 2016	Bo Isacsson	2, 3, 4, 11, 13, and 15
v.6	May 28, 2020	Bo Isacsson	3 and 11