

# 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

<b>PRODUCT NAME:</b>	NoroTec™ Magnesium
<b>Group Name</b>	Fertilisers based on magnesium

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

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

#### 1.3 Details of the supplier of the safety data sheet

<b>Company</b>	NoroTec AB
<b>Address</b>	Södergatan 74
<b>Zip Code / City or Town</b>	SE-274 34 Skurup
<b>Country</b>	Sweden
<b>E-mail</b>	mail@norotec.se
<b>Telephone</b>	+46 411 406 60
<b>Contact person</b>	Bo Isacson

#### 1.4 Emergency telephone number

<b>Emergency telephone number</b>	Call 112 or call directly +46 (0)8 -33 12 31.- Poisson Information Centre, Sweden
-----------------------------------	---

### 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

<b>EUH210</b>	Safety Data Sheet available on request.
---------------	---

#### Precautionary statements

--	--
----	----

#### Contains

--	--
----	----

#### 2.3 Other hazards

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

# SAFETY DATA SHEET

## NoroTec AB

Date of Issue: May 28, 2020

Version no: 6.0

Replaces: February 18, 2016

### NoroTec™ Magnesium

#### 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

<b>Inhalation</b>	Not relevant.
<b>Skin contact</b>	Remove contaminated clothing. Wash skin thoroughly with water.
<b>Eye contact</b>	Hold eyelids apart. Rinse with a gentle stream of water for up to 5 minutes. Consult a physician if irritation persists.
<b>Ingestion</b>	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

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

##### 4.3 Indication of any immediate medical attention and special treatment needed

<b>Notes to physician</b>	Treat symptomatically.
<b>Specific treatments</b>	No specific treatment.

#### 5. FIRE FIGHTING MEASURES

##### 5.1 Extinguishing media

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

##### 5.2 Special hazards arising from the substance or preparation

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

# SAFETY DATA SHEET

NoroTec AB

Date of Issue: May 28, 2020

Version no: 6.0

Replaces: February 18, 2016

## NoroTec™ Magnesium

### 5.3 Advice to firefighters

<b>5.3.1. Special protective actions for fire-fighters</b>	Avoid inhalation of toxic fumes.
<b>5.3.2 Special protective equipment for fire-fighters</b>	Fire-fighters should use chemically protective clothing and self-contained breathing apparatus.
<b>5.3.3 Further information</b>	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

<b>Handling</b>	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.
-----------------	---

### 7.2 Conditions for safe storage, including any incompatibilities

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

### 7.3 Special characteristics and risks

<b>Conditions to avoid</b>	Keep away from strong alkaline solution and strong oxidizing agents.
----------------------------	--

### 7.4 Specific end use(s)

<b>Specific use (s)</b>	Fertiliser.
-------------------------	-------------

# SAFETY DATA SHEET

NoroTec AB

Date of Issue: May 28, 2020

Version no: 6.0

Replaces: February 18, 2016

## NoroTec™ Magnesium

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

##### Occupational Exposure Limit:

Substance	CAS no.	Range	ppm	mg/m <sup>3</sup>	Year	Remarks
--	--	--	--	--	--	--

#### 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.

<b>8.2.2.1 Respiratory protection</b>	Normally not needed. At risk of inhalation of spray mist use respiratory equipment (half mask with particle filter P2).
<b>8.2.2.2 Eye/face protection</b>	If risk of splashing wear tight-fitting safety goggles.
<b>8.2.2.3 Hand protection</b>	At the risk of prolonged and repeated contact with the product use protective gloves made of butyl rubber.
<b>8.2.2.4 Body protection</b>	Wear appropriate protective clothing.
<b>8.2.2.5 Thermal hazards</b>	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

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

# SAFETY DATA SHEET

NoroTec AB

Date of Issue: May 28, 2020

Version no: 6.0

Replaces: February 18, 2016

## NoroTec™ Magnesium

### 9.2 Other information

VOC	Not applicable
-----	----------------

### 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/kg	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.

# SAFETY DATA SHEET

NoroTec AB

Date of Issue: May 28, 2020

Version no: 6.0

Replaces: February 18, 2016

## NoroTec™ Magnesium

### 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
--------------------	---

### 12.3 Bioaccumulative potential

Conclusion/Summary	Bioaccumulation of magnesium can be expected
--------------------	--

### 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.

# SAFETY DATA SHEET

NoroTec AB

Date of Issue: May 28, 2020

Version no: 6.0

Replaces: February 18, 2016

## NoroTec™ Magnesium

<b>Special precautions</b>	Not relevant
----------------------------	--------------

### 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.

<b>UN-no:</b>	--
<b>Proper Shipping Name:</b>	--

### ADR / RID (Road / Rail Transport)

<b>Class:</b>	--	<b>Packing Group:</b>	--
<b>Label:</b>	--	<b>Environmental hazards:</b>	--
<b>Hazard number:</b>	--	<b>Tunnel restriction</b>	--

### IMDG (SEA)

<b>Class:</b>	--	<b>Packing Group:</b>	--
<b>Label</b>	--	<b>EmS</b>	--
<b>Marine Pollutant:</b>	--		

### IATA (Air Transport)

<b>Class:</b>	--	<b>Packing Group:</b>	--
<b>Label:</b>	--	<b>Environmental hazards:</b>	--

### 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.

<b>Authorisation</b>	Not required.
<b>Restriction in use</b>	None.
<b>Other EU legislation</b>	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.

# SAFETY DATA SHEET

NoroTec AB

Date of Issue: May 28, 2020

Version no: 6.0

Replaces: February 18, 2016

## NoroTec™ Magnesium

### 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