



# NoroTec Wintercrop/Manganese

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Trade name**

NoroTec Wintercrop/Manganese

**Article No.**

70029, 70036

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

**Product type**

Fertilizer based on manganese.

**Relevant identified uses**

Fertilisers and fertilising products

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

**Supplier**

AB Lennart Månsson International

Address

Långebergavägen 40  
SE-251 07 Helsingborg  
Sweden

Telephone

+46-42-29 20 05

Email

info@lmiab.com

Fax

+46-42-29 24 50

Web site

<https://www.lmiab.com>



# NoroTec

## Wintercrop/Mangane se

**Manufacturer**

AB Lennart Månsson International

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info@lmiab.com

Fax

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Web site

<https://www.lmiab.com>

**1.4. Emergency telephone number**

112

**Available outside office hours**

Yes

## SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

**Classification**

Serious eye damage, hazard category 1  
Hazardous to the aquatic environment — Chronic hazard category 3  
Skin corrosion, hazard category 1B  
Specific Target Organ Toxicity — Repeated exposure, hazard category 2

**Hazard statements**

H314, H318, H373, H412



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### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

H314 Causes severe skin burns and eye damage.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

#### Precautionary statements

P260 Do not breathe mist/vapours/spray.

P264 Wash hands thoroughly after handling. thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P314 Get medical advice/attention if you feel unwell.

P363 Wash contaminated clothing before reuse.

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container to an approved waste disposal plant.

### 2.3. Other hazards

No further relevant information available.



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### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
manganese sulphate	7785-87-7 232-089-9 01-2119456624-35 025-003-00-4	15 - 20%	Eye Dam. 1, STOT RE 2, Aquatic Chronic 2	H318, H373, H411 - -	-
Monopotassium phosphate	7778-77-0 231-913-4 01-2119490224-41 -	5 - 10%	-	- - -	-
Magnesium sulphate	7487-88-9 231-298-2 01-2119486789-11 -	5 - 10%	-	- - -	-
phosphoric acid ... %, ortho- phosphoric acid ... %	7664-38-2 231-633-2 - 015-011-00-6	5 - 10%	Skin Corr. 1B	H314 - -	Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %; B
Urea	57-13-6 200-315-5 01-2119463277-33 -	3 - 5%	-	- - -	-
citric acid	77-92-9 201-069-1 - 607-750-00-3	1 - 2%	Eye Irrit. 2, STOT SE 3 - resp. tract irrit.	H319, H335 - -	-
Zinc Nitrate	7779-88-6 231-943-8 - -	0.5 - 1%	Ox. Sol. 2, Acute Tox. 4 - oral, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 - resp. tract irrit., Aquatic Acute 1, Aquatic Chronic 2	H272, H302, H315, H319, H335, H400, H411 M-acut=1 - -	-
Potassium Nitrate	7757-79-1 231-818-8 01-2119488224-35 -	0.1 - 0.5%	Ox. Sol. 3	H272 - -	-



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### **Substance additional information**

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### **Inhalation**

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

#### **Skin contact**

Remove contaminated clothes and rinse skin thoroughly with water.

#### **Eye contact**

Rinse immediately with copious amounts of water for at least 15 min. Remove any contact lenses and hold eyes wide open. In case of continued irritation, rinsing is continued during transport to hospital.

#### **Ingestion**

Rinse mouth thoroughly with water. Drink a few glasses of water or milk. Contact physician if larger quantity has been consumed.

### 4.2. Most important symptoms and effects, both acute and delayed

#### **Inhalation**

Inandning kan ge sveda i ögon, näsa, mun och svalg. Produkten innehåller mangansulfat. Inandning av sprutdimma eller partiklar under längre tid kan därför ge kronisk manganförgiftning med påverkan av centrala nervsystemet. Symptom på påverkan är sömnhet, darrningar och ryckningar i armar och ben.

#### **Skin contact**

Corrosive to skin.

#### **Eye contact**

Risk of serious damage to eyes.

#### **Ingestion**

Harmful if swallowed.

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

Treat symptomatically.



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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Choose extinguishing agents after the burning material.

#### 5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

#### 5.3. Advice for firefighters

##### Special protective equipment for fire-fighters

Do not inhale explosion and combustion gases. Wear a self-contained breathing apparatus and chemical protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes and clothes.

#### 6.2. Environmental precautions

Prevent spillage entering a watercourse or sewer, contaminating soil or vegetation. If this is not possible notify police and appropriate authorities immediately.

#### 6.3. Methods and material for containment and cleaning up

Contain spillages with sand, earth or any suitable adsorbent material. Collect in containers and seal securely. Remove containers and flush area with water.

#### 6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Preventive handling precautions

Ventilate well. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothes.

##### General hygiene

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.



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

Store in a well-ventilated place. Keep container tightly closed. Protect from freezing and direct sunlight.

### 7.3. Specific end use(s)

Fertilisers and fertilising products

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No data available

### 8.2. Exposure controls

#### Appropriate engineering controls

Provide adequate ventilation.

#### Personal Protective Equipment Symbols



#### Eye / face protection

Wear tight-fitting goggles or face shield.

#### Hand protection

Använd skyddshandskar av neopren eller nitrilgummi.

#### Other skin protection

Wear suitable protective clothing as protection against splashing or contamination.

#### Respiratory protection

In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P3).

#### Environmental exposure controls

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Physical state

Liquid



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**Colour**

pink

**Odour**

Almost odourless.

**Odour threshold**

Not relevant.

**Melting point / freezing point**

No data available

**Boiling point or initial boiling point and boiling range**

No data available

**Flammability**

No data available

**Lower and upper explosion limit**

Not relevant.

**Flash point**

No data available

**Auto-ignition temperature**

No data available

**Decomposition temperature**

No data available

**pH**

~ 1

**Kinematic viscosity**

No data available

**Viscosity, dynamic**

No data available

**Solubility**

Completely soluble in water.

**Partition coefficient n-octanol/water**

not applicable

**Vapour pressure**

No data available





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**Density and/or relative density**

~ 1.37 kg/m<sup>3</sup>

**Relative vapour density**

No data available

**Explosive properties**

Not explosive

**Oxidising properties**

Not oxidising.

**VOC %**

not applicable

**Particle characteristics**

No data available

**9.2. Other information**

No further relevant information available.

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

No specific reactivity hazards associated with this product.

**10.2. Chemical stability**

Stable under recommended storage and handling conditions.

**10.3. Possibility of hazardous reactions**

None under normal use.

**10.4. Conditions to avoid**

Protect from freezing and direct sunlight. Avoid heat.

**10.5. Incompatible materials**

Keep away from oxidising agents and strongly acid or alkaline materials.

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to release of irritating gases and vapours.



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## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Corrosive. Prolonged contact causes serious tissue damage.

#### Acute toxicity

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline	Remarks
Magnesium sulphate 7487-88-9 / 231-298-2	LD50	> 2000 mg/kg	oral	-	Rat	-	-
Urea 57-13-6 / 200-315-5	LD50	> 16000 mg/kg	oral	-	Pig	LDL0	-
Zinc Nitrate 7779-88-6 / 231-943-8	LD50	300 - 2000 mg/kg	oral	-	Rat	-	-
Potassium Nitrate 7757-79-1 / 231-818-8	LD50	> 2000 mg/kg	oral	-	Rat	-	-
Potassium Nitrate 7757-79-1 / 231-818-8	LD50	> 5000 mg/kg	dermal	24 h	Rat	-	-
Potassium Nitrate 7757-79-1 / 231-818-8	LC50	> 0,527 mg/l	Inhalation can cause burning in the eyes, nose, mouth and throat.	4 h	Rat	-	-
manganese sulphate 7785-87-7 / 232-089-9	LD50	2150 mg/kg	oral	-	Rat	-	-
manganese sulphate 7785-87-7 / 232-089-9	LC50	> 4,45 mg/l	Inhalation	4 h	Rat	-	-
Monopotassium phosphate	LD50	7100 mg/kg	oral	-	Rat	-	No Toxic if swallowed.



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Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline	Remarks
7778-77-0 / 231-913-4							
Monopotassium phosphate 7778-77-0 / 231-913-4	LD50	> 4640 mg/kg	dermal	-	Rabbit	-	No Toxic in contact with skin.

**Skin corrosion/irritation**

Corrosive. Prolonged contact causes serious tissue damage.

**Serious eye damage/irritation**

Risk of serious damage to eyes.

**Respiratory or skin sensitisation**

No further relevant information available.

**Germ cell mutagenicity**

No further relevant information available.

**Carcinogenicity**

No further relevant information available.

**Repeated dose toxicity**

No further relevant information available.

**STOT-single exposure**

No further relevant information available.

**STOT-repeated exposure**

No further relevant information available.

**Aspiration hazard**

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

**11.2. Information on other hazards**

**Endocrine disrupting properties**

The mixture does not contain substances  $\geq 0.1\%$  of substances that have endocrine disrupting properties according to Regulation (EC) No. 1907/2006, Article 59(1) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.



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## SECTION 12: Ecological information

### 12.1. Toxicity

#### Acute toxicity

Harmful to aquatic life with long lasting effects.

#### Acute fish toxicity

Product / Substance name CAS / EC no.	Value / Result	Duration of exposure	Endpoint of the test	Species
manganese sulphate 7785-87-7 / 232-089-9	49,9 mg/l	96 h	LC50	Salmo trutta fario (L) (Freshwater trout)
Magnesium sulphate 7487-88-9 / 231-298-2	15000 mg/l	96 h	LC50	Gambusia affinis (Mosquito fish)
Urea 57-13-6 / 200-315-5	> 6810 mg/l	96 h	LC50	Leuciscus idus (golden orfe)
Zinc Nitrate 7779-88-6 / 231-943-8	439 µg/l	96 h	LC50	-
Potassium Nitrate 7757-79-1 / 231-818-8	1378 mg/l	96 h	LC50	Poecilia reticulata (Guppy)

#### Acute algae toxicity

Product / Substance name CAS / EC no.	Value / Result	Duration of exposure	Endpoint of the test	Species	Method / Guideline
manganese sulphate 7785-87-7 / 232-089-9	61 mg/l	72 h	EC50	Desmodesmus subspicatus	-
Magnesium sulphate 7487-88-9 / 231-298-2	2700 mg/l	72 h	EC50	Desmodesmus subspicatus	-
Urea 57-13-6 / 200-315-5	47 mg/l	192 h	-	-	-
Potassium Nitrate 7757-79-1 / 231-818-8	> 1700 mg/l	10 d	EC50/LC50	-	NOEC

#### Acute crustacean toxicity



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Product / Substance name CAS / EC no.	Value / Result	Duration of exposure	Endpoint of the test	Species
Magnesium sulphate 7487-88-9 / 231-298-2	1700 mg/l	24 h	EC50	Daphnia magna (Big water flea)
Urea 57-13-6 / 200-315-5	> 10000 mg/l	24 h	EC50	Daphnia magna (Big water flea)
Zinc Nitrate 7779-88-6 / 231-943-8	670 µg/l	48 h	EC50	Ceriodaphnia spec
Potassium Nitrate 7757-79-1 / 231-818-8	490 mg/l	48 h	LC50/EC50	Daphnia magna (Big water flea)

## 12.2. Persistence and degradability

### Persistence and degradability

The product contains elements such as zinc, manganese and magnesium.

Product / Substance name CAS / EC no.	Duration	Result	Method / Guideline
Urea 57-13-6 / 200-315-5	16 day(s)	96 %	OECD Test Guideline 302B

## 12.3. Bioaccumulative potential

### Bioaccumulative potential

Bioackumulering kan förväntas av mangan och magnesium.

## 12.4. Mobility in soil

### Mobility

Produkten är rörlig i markprofilen på grund av sin höga vattenlöslighet. Adsorption till fasta jordpartiklar är inte att förvänta.

Product / Substance name CAS / EC no.	KOC	Mobility
Urea 57-13-6 / 200-315-5	0,037 – 0,064	Mobility in soil Soluble in: Water

## 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## 12.6. Endocrine disrupting properties

The mixture does not contain substances  $\geq 0.1\%$  of substances that have endocrine disrupting properties according to Regulation (EC) No. 1907/2006, Article 59(1) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.



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### 12.7. Other adverse effects

#### Other adverse effects

No further relevant information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal considerations

Dispose of as special waste in compliance with local and national regulations

#### Packaging

Dispose of as hazardous waste in compliance with local and national regulations.

Waste code	Waste description
02 01 08*	agrochemical waste containing hazardous substances
15 01 10*	packaging containing residues of or contaminated by hazardous substances

Please note - an asterisk (\*) next to a code denotes that it is HAZARDOUS WASTE.

## SECTION 14: Transport information

### 14.1. UN number

3082

### 14.2. UN proper shipping name

#### ADR / RID / ADN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Manganese sulfate)

### 14.3. Transport hazard class(es)

#### Label

ADR/RID/ADN



9 Environmental hazard

#### ADR / RID Class

9



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**ADR / RID Classification code**

M6

**ADR / RID hazard identification number**

90

**ADN Class**

9

**ADN Class Code**

M6

**14.4. Packing group**

ADR / RID / ADN: III

**14.5. Environmental hazards**

**Environmental hazards**

ADR/RID/ADN: Hazardous for the environment

**14.6. Special precautions for user**

**Special precautions for user**

Tunnel restriction code: -

Transport category: 3

**14.7. Maritime transport in bulk according to IMO instruments**

Not relevant.

**Other**

Not applicable

## SECTION 15: Regulatory information

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

**EU regulations**

Europaparlamentet och rådets förordning (EG) nr 1272/2008 om klassificering och förpackning av ämnen och blandningar (CLP-förordningen). Europaparlamentets och rådets förordning 453/2010/EC, Bilaga II: Säkerhetsdatablad.

**National regulations**

Arbetsmiljöverkets föreskrifter och allmänna råd om kemiska arbetsmiljörisker, AFS 2011:19. Avfallsförordning, SFS 2020:614.

**15.2. Chemical safety assessment**

No



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### SECTION 16: Other information

#### Phrase meaning

Eye Dam. 1 - Serious eye damage, hazard category 1  
Aquatic Chronic 3 - Hazardous to the aquatic environment — Chronic hazard category 3  
Skin Corr. 1B - Skin corrosion, hazard category 1B  
STOT RE 2 - Specific Target Organ Toxicity — Repeated exposure, hazard category 2  
Aquatic Chronic 2 - Hazardous to the aquatic environment — Chronic hazard category 2  
Eye Irrit. 2 - Eye irritation, hazard category 2  
STOT SE 3 - resp. tract irrit. - Specific Target Organ Toxicity — Single exposure, hazard category 3 - respiratory tract irritation  
Ox. Sol. 2 - Oxidising solids, hazard category 2  
Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4  
Skin Irrit. 2 - Skin irritation, hazard category 2  
Aquatic Acute 1 - Hazardous to the aquatic environment — Acute hazard category 1  
Ox. Sol. 3 - Oxidising solids, hazard category 3  
H272 May intensify fire; oxidiser.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.