

According to Regulation (EC) No. 1907/2006

## DISSOLVINE E-MN-13

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

<b>Product label name</b> Ethylenediaminetetraacetic acid, manganese disodium complex	
<b>Supplier</b> Akzo Nobel Functional Chemicals bv Stationsstraat 77 PO Box 247 NL-3800 AE Amersfoort Tel.: +31 334676767	
<b>E-mail address of person responsible for safety data sheet</b> SDS_chelates@AkzoNobel.com	
<b>Emergency telephone</b> T +31570679211 F +31570679801 AkzoNobel Chemicals-Deventer-NL	
<b>Intended use</b> chelating agent plant nutrient	
<b>Date of last issue / Revision number</b> 2009/08/25 / 0.23	

### 2. HAZARDS IDENTIFICATION

Non-hazardous according to Worksafe Australia criteria
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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on hazardous ingredients			
<b>Chemical description</b> Ethylenediaminetetraacetic acid, manganese disodium complex			
<b>Composition / information on ingredients</b>			
Number	% w/w	CAS-number	Chemical name
1	88 - 96	015375-84-5	Ethylenediaminetetraacetic acid, manganese-disodium complex
2	1 - 2.5	005064-31-3	Nitilotriacetic acid, trisodium salt

	Index-No.	EC-number	Symbol(s) (EU classification)	Risk-phrase(s)
1		239-407-5		none
2		225-768-6	Xn	R22 R36 R40

<b>Other information</b> Balance: water
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### 4. FIRST AID MEASURES

<b>Symptoms and effects</b> No typical symptoms and effects known.
<b>First aid</b>
<b>General</b> In all cases of doubt, or when symptoms persist, seek medical attention.

According to Regulation (EC) No. 1907/2006

## DISSOLVINE E-MN-13

### Inhalation

Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. Move to fresh air. If symptoms persist, seek medical advice

### Skin

Take off contaminated clothing immediately. Wash immediately with soap and water. Launder clothes before reuse.

### Eye

Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.

### Ingestion

Rinse mouth, give water to drink.

### Advice to physician

No additional information available

## 5. FIRE-FIGHTING MEASURES

### Extinguishing media

waterspray, foam, Carbon dioxide, dry chemical powder

### Unsuitable extinguishing media

none known.

### Hazardous decomposition / combustion products

Nitrous gases may be produced

### Protective equipment

Use self-contained respiratory equipment.

### Fire and explosion hazard

In case of fire and/or explosion do not breathe fumes.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

For personal protection see Section 8

### Environmental precautions

Collect as much as possible in a clean container for (preferable) reuse or disposal.

### Methods for cleaning up

Flush remainder with water (Absorb the remainder with e.g. vermiculite). See section 13 .

## 7. HANDLING AND STORAGE

### Handling

Avoid dust generation.

### Fire and explosion prevention

In certain concentrations the product may form an explosive dust-air mixture.

### Storage requirements

No specific recommendations

### Other information

Protect product from moisture and wet air. Keep container tightly closed and dry.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering controls

No specific recommendations

According to Regulation (EC) No. 1907/2006

## DISSOLVINE E-MN-13

Personal protection	
<b>Respiratory</b>	In case of dust formation use dust mask. Dust exposure limits have to be respected.
<b>Hand</b>	For permanent (>480 minutes), full contact use, 100% nitrile gloves conforming to EN 374, e.g. KCL Dermatril 740 are recommended. If used under conditions other than given above it is recommended that a supplier of CE approved gloves is contacted. These recommendations are only applicable to the chemical as supplied by Akzo Nobel; if mixed with or dissolved in other substances please contact a supplier of CE approved gloves (e.g. KCL International +49 66 59870, fax +49 6659 87155).
<b>Eye</b>	The usual precautions for handling chemicals should be observed.
<b>Skin and body</b>	The usual precautions for handling chemicals should be observed.

Dust (general)		
Time Weighted Average (TWA)	10 mg/m <sup>3</sup>	inhalable dust.
Time Weighted Average (TWA)	4 mg/m <sup>3</sup>	respirable dust.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	microgranular (25 °C)
<b>Colour</b>	off white
<b>Odour</b>	odourless
<b>Boiling point/range</b>	not applicable
<b>Melting point/range</b>	Decomposes prior to melting
<b>Flash point</b>	not applicable
<b>Flammability</b>	no
<b>Explosive properties</b>	no
<b>Oxidizing properties</b>	no
<b>Vapour pressure</b>	not applicable
<b>Density</b>	not applicable
<b>Bulk density</b>	600-800 kg/m <sup>3</sup>

According to Regulation (EC) No. 1907/2006

## DISSOLVINE E-MN-13

<b>Solubility in water</b> approx. 800 g/l
<b>Solubility in other solvents</b> not determined
<b>pH value</b> 6-7 (1% solution)
<b>Partition coefficient n-octanol/water</b> Log Pow < 0
<b>Relative vapour density (air=1)</b> not applicable
<b>Viscosity</b> not applicable
<b>Autoignition temperature</b> >200 °C (glowing temperature of 5 mm product layer)
<b>Explosion limits</b> Lower Explosion Limit $\geq 40 \text{ g/m}^3$

### 10. STABILITY AND REACTIVITY

<b>Conditions to avoid</b> Reaction with strong oxidizing agents. Product layer on hot surface might cause glowing or autoignition .
<b>Stability</b> Stable under recommended storage and handling conditions (see section 7)
<b>Incompatibles</b> none known.
<b>Hazardous decomposition products</b> Emits toxic fumes under fire conditions (nitrous gases (NO <sub>x</sub> )).

### 11. TOXICOLOGICAL INFORMATION

No experimental toxicological data of the product as such available. From structurally related products the following may be expected;	
<b>Nitriлотriacetic acid, trisodium salt</b>	
<b>Acute toxicity</b>	
<b>Oral LD50</b> rat: 1000 - 2000 mg/kg ( Lit. )	
<b>Irritation</b>	
<b>Skin</b> Non-irritating ( Akzo Nobel E-file )	
<b>Eye</b> powder: irritating, solution: Mildly irritating ( Lit. )	
<b>Genotoxicity</b> Mutagenicity test revealed no genotoxic potential.	
<b>Other toxicological information</b> NTA has caused kidney tumours in rats and mice when administered orally in high concentrations. The tumours are based on organ damage that can only occur when extremely high threshold limit concentrations, as compared with possible human exposure, are exceeded. In view of the potential degree of exposure, there should be no cancer risk to humans.	

### 12. ECOLOGICAL INFORMATION

According to Regulation (EC) No. 1907/2006

## DISSOLVINE E-MN-13

No experimental ecological data are available on the substance as such. From structurally related products the following may be expected;

**Nitrilotriacetic acid, trisodium salt**

### Ecotoxicity

#### fish

Pimephales promelas: 96h-LC50: 114 - 470 mg/l, No Observed Effect Concentration (NOEC): 60 mg/l (30 days) Lit.)

#### daphnia

48h-LC50: 560 - 1000 mg/l (Lit.)

#### algae

Microcystis aeruginosa: 96h-EC50: 180 - 320 mg/l (Lit.)

#### Fate

#### Degradation Biotic

Readily biodegradable ( Lit. )

## 13. DISPOSAL CONSIDERATIONS

### Product

According to local regulations.

### Contaminated packaging

No specific recommendations.

## 14. TRANSPORT INFORMATION

### Land transport

#### Class

not restricted

#### Classification Code

not relevant / not relevant

#### RID class

not restricted

#### Hazard Identification No.

none

#### Substance Identification No.

none

#### UN number

not relevant

#### Proper shipping name

not relevant

### Sea transport (IMO/ IMDG-code)

#### Class

not restricted

#### Packing group

none

#### UN number

none

According to Regulation (EC) No. 1907/2006

## DISSOLVINE E-MN-13

<b>EMS</b> not relevant
<b>Marine pollutant</b> no
<b>Proper shipping name</b> not relevant

<i>Air transport (ICAO-TI / IATA-DGR)</i>	
<b>UN number</b> none	
<b>Class</b> not restricted	
<b>Packing group</b> none	
<b>Proper shipping name</b> not relevant	

### 15. REGULATORY INFORMATION

<b>Product label name</b> Ethylenediaminetetraacetic acid, manganese disodium complex
<b>Labelling according to EC directives</b>
<b>EC-number</b> not applicable

<b>R(isk) phrase(s) (EU classification)</b>	
<b>Code</b> none	<b>Description</b> none

<b>S(afety) phrase(s) (EU classification)</b>	
<b>Code</b> none	<b>Description</b> none

<b>Other information</b> Concentration limits for Na <sub>3</sub> -NTA (31. ATP of Dir. 67/548/EEC): C ≥ 25%: Xn; R22-36-40 20% ≤ C < 25%: Xn; R36-40 5% ≤ C < 20%: Xn; R40
<b>German Water Hazard Class (WGK)</b> 2 ( Internal assessment )

### 16. OTHER INFORMATION

According to Regulation (EC) No. 1907/2006

## DISSOLVINE E-MN-13

R-pharse information		
Chemical name	R(isk) phrase(s) (EU classification)	
Ethylenediaminetetraacetic acid, manganese-disodium complex	none	none
Nitrilotriacetic acid, trisodium salt	R22 R36 R40	Harmful if swallowed Irritating to eyes Limited evidence of a carcinogenic effect

### History

#### Other information

The R phrases as described in this chapter relate to the substances of the product and not to the final product. Classification of the final product is given in chapter 15 .

#### Date of printing/ pdf file generated

2009/11/06

#### Revision

0.23

#### Composed by

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A. Reichwein

#### Changes were made in section

14, Land transport

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.