

# SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

Page 1/6

MAM

Revision  
Revision date

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

### 1.1. Product identifier

Product name MAM

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

Description Fertiliser

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

Company Metrop Agrotechniek  
Address Edisonweg 32

3404LC  
IJsselstein  
Netherlands

Web www.metrop.net  
Telephone +31 (0)30 6877274  
Fax +31 (0)30 6877423  
Email [info@metrop.nl](mailto:info@metrop.nl)

### Local Supplier

Company  
Address

Web  
Telephone  
Fax  
Email

### 1.4. Emergency telephone number

Emergency telephone number +31 (0)30 6877274  
09:00-17:00 GMT


## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

2.1.1. Classification - 67/548/EEC Xi; R36/37/38  
Symbols: Xi: Irritant  
Main hazards Irritating to eyes, respiratory system and skin.

2.1.2. Classification - EC 1272/2008 Skin irrit.2: H315; Eye irrit. 2: H319; STOT SE 3: H335;

### 2.2. Label elements

Hazard pictograms 

Signal Word Warning

Hazard Statement Skin Irrit. 2: H315 - Causes skin irritation

<b>Precautionary Statement: Prevention</b>	Eye Irrit. 2: H319 - Causes serious eye irritation STOT SE 3: H335 - May cause respiratory irritation.
	P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
	<b>Precautionary Statement: Response</b>
	P302+P352- IF ON SKIN: Wash with plenty of water. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for b P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. I lenses, if present and easy to do. Continue rinsing. P312 - Call a POISON CENTER/doctor/ /if you feel unwell P321 - Specific treatment (see on this label) P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention.
<b>Precautionary Statement: Storage</b>	P403 + P233 -Store in a well-ventilated place.Keepcontainer tightly closed. P405 - Store locked up
<b>Precautionary Statement: Disposal</b>	P501 -Dispose of contents/container to waste collection or recycling, after thorough compliance with local and national regulations

**SECTION 3: Composition/information on ingredients****3.1. Substances****67/548/EEC / 1999/45/EC**

Chemical Name	Index No.	CAS No.	EC No.	REACH Registratic Number	Conc. (%w/w)
Ammonium Nitrate	6484-52-2	229-347-8			20-30 %
Potassium Nitrate	7757-79-1	231-818-8			10-20 %
Zinc disodium ethylenediaminetetraacetate (Zinc EDTA)	14025-21-9	237-865-0			1-10 %
Cobalt disodium ethylenediaminetetraacetate (Cobalt EDTA)	15137-09-4	239-198-0			0-0,5 %

**EC 1272/2008**

Chemical Name	Index No.	CAS No.	EC No.	REACH Registratic Number	Conc. (%w/w)
Ammonium Nitrate	6484-52-2	229-347-8			20-30 %
Potassium Nitrate	7757-79-1	231-818-8			10-20 %
Zinc disodium ethylenediaminetetraacetate (Zinc EDTA)	14025-21-9	237-865-0			1-10 %
Cobalt disodium ethylenediaminetetraacetate	15137-09-4	239-198-0			0-0,5 %

**3.2. Mixtures**

	See section 3.2 for further information.
--	------------------------------------------

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>Inhalation</b>	Irritating to respiratory system. Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. Move the exposed person to fresh air. Seek medical attention if symptoms persist.
<b>Eye contact</b>	Irritating to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if irritation or symptoms persist.
<b>Skin contact</b>	Irritating to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
<b>Ingestion</b>	Ingestion may cause nausea and vomiting. Seek medical attention if irritation or symptoms persist. DO NOT INDUCE VOMITING.

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

<b>Inhalation</b>	May cause irritation to respiratory system.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Skin contact</b>	Causes skin irritation.
<b>Ingestion</b>	May cause irritation to mucous membranes.

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

<b>Inhalation</b>	Inhalation of vapour may cause shortness of breath. Seek medical attention if irritation or symptoms persist.
<b>Eye contact</b>	Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Skin contact</b>	Rinse immediately with plenty of water. Wash with soap and water.
<b>Ingestion</b>	Caution - substance not yet fully tested. May cause irritation to mucous membrane.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

	Carbon dioxide (CO <sub>2</sub> )
--	-----------------------------------

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

	Burning produces irritating, toxic and obnoxious fumes.
--	---------------------------------------------------------

**5.3. Advice for firefighters**

	Wear suitable respiratory equipment when necessary.
--	-----------------------------------------------------

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

	Ensure adequate ventilation of the working area. Wear suitable protective equipment.
--	--------------------------------------------------------------------------------------

**6.2. Environmental precautions**

	Do not allow product to enter drains. Prevent further spillage if safe.
--	-------------------------------------------------------------------------

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

	Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled container for disposal. Clean spillage area thoroughly with plenty of water.
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Observe best Manual Handling considerations when handling, carrying and dispensing.

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

Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in clearly labelled containers.


## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Exposure Limit Values

Cobalt disodium ethylenediaminetetraacetate (Cobalt EDTA)	<b>WEL 8-hr limit ppm:</b>	<b>WEL 8-hr limit mg/m<sup>3</sup>:</b>
	<b>WEL 15 min limit ppm:</b>	<b>WEL 15 min limit mg/m<sup>3</sup>:</b>
	<b>WEL 8-hr limit mg/m<sup>3</sup> total - inhalable dust:</b>	<b>WEL 15 min limit mg/m<sup>3</sup> total - inhalable dust:</b>
Potassium Nitrate	<b>WEL 8-hr limit ppm:</b>	<b>WEL 8-hr limit mg/m<sup>3</sup>:</b>
	<b>WEL 15 min limit ppm:</b>	<b>WEL 15 min limit mg/m<sup>3</sup>:</b>
	<b>WEL 8-hr limit mg/m<sup>3</sup> total - inhalable dust:</b>	<b>WEL 15 min limit mg/m<sup>3</sup> total - inhalable dust:</b>
Zinc disodium ethylenediaminetetraacetate (Zinc EDTA)	<b>WEL 8-hr limit ppm:</b>	<b>WEL 8-hr limit mg/m<sup>3</sup>:</b>
	<b>WEL 15 min limit ppm:</b>	<b>WEL 15 min limit mg/m<sup>3</sup>:</b>
	<b>WEL 8-hr limit mg/m<sup>3</sup> total - inhalable dust:</b>	<b>WEL 15 min limit mg/m<sup>3</sup> total - inhalable dust:</b>

### 8.2. Exposure controls

	
<b>8.2.1. Appropriate engineering controls</b>	Ensure adequate ventilation of the working area.
<b>8.2.2. Individual protection measures</b>	Wear chemical protective clothing
<b>Eye / face protection</b>	Approved safety goggles
<b>Skin protection - Handprotection</b>	Chemical resistant gloves (pvc)
<b>Respiratory protection</b>	Wear suitable respiratory equipment.

## SECTION 9: Physical and chemical properties

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

<b>Appearance</b>	Liquid
<b>Colour</b>	Green
<b>odour</b>	Mild
<b>Odour threshold</b>	No data available
<b>pH</b>	3.5 - 5

<b>Melting point</b>	< -1 °C
<b>Initial boiling point</b>	> 100 °C
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Vapour density</b>	No data available
<b>Relative density</b>	1.43 - 1.48 (H2O = 1 @ 20 °C)
<b>Partition coefficient</b>	Not applicable
<b>Autoignition temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive properties</b>	No data available
<b>Oxidising properties</b>	No data available
<b>Solubility</b>	Soluble in water

**9.2. Other information**

<b>Conductivity</b>	No data available
<b>Surface tension</b>	No data available
<b>Gas group</b>	No data available
<b>Benzene Content</b>	Not determined
<b>Lead content</b>	Not determined
<b>VOC (Volatile organic compounds)</b>	Not determined

**SECTION 10: Stability and reactivity**

**10. Chemical stability**

	Stable under normal conditions.
--	---------------------------------

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

<b>Acute toxicity</b>	No data is available on this product.
<b>Skin corrosion/irritation</b>	Causes skin irritation
<b>Serious eye damage/irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitisation</b>	May cause sensitisation by inhalation and skin contact
<b>Germ cell mutagenicity</b>	No data is available on this product.
<b>Carcinogenicity</b>	No data is available on this product.

**11.1.2. Mixtures**

	No data is available on this product.
--	---------------------------------------

**11.1.3. Hazard Information**

	Irritating to eyes and skin.
--	------------------------------

**11.1.4. Toxicological Information**

<b>Ammonium Nitrate</b>	Dermal Rat LD50: 2950	Oral Rat LD50: 2000
<b>Cobalt disodium ethylenediaminetetraacetate</b>	Oral Rat LD50; 2000	
<b>Potassium Nitrate</b>	Dermal Rat LD50: 2000	Oral Rat LD50: 2000
<b>Zinc disodium ethylenediaminetetraacetate</b>	Inhalation Rat LC50/4 h: 2.75	Oral Rat LD50: 5000 mg/kg

**SECTION 12: Ecological information**

**12.1. Toxicity**

Ammonium Nitrate	<b>Fish LC50/96h: 100 mg/l</b>	<b>Algae LC50/96h: 1700 mg/l</b>
Potassium Nitrate	<b>Daphnia EC50/48h: 490.0000 mg/l</b> <b>Fish LC50/96h: 1378.0000 mg/l</b>	<b>Algae IC50/72h: 1700 mg/l</b>

**12.3. Bioaccumulative potential****Partition coefficient**

	<b>Ammonium Nitrate</b> Not applicable.	<b>Potassium Nitrate</b>
	<b>Zinc Disodium ethylenediaminetetraacetate</b> No data available	
	May cause long-term adverse effects in the aquatic environment.	

**SECTION 13: Disposal considerations****General information**

	Dispose of in compliance with all local and national regulations.
--	-------------------------------------------------------------------

**Disposal methods**

	Contact a licensed waste disposal company.
--	--------------------------------------------

**Disposal of packaging**

	Do NOT reuse empty containers. Empty containers can be sent for disposal or re-use.
--	-------------------------------------------------------------------------------------

**SECTION 14: Transport information****ADR/RID**

	The product is not classified as dangerous for carriage.
--	----------------------------------------------------------

**IMDG**

	The product is not classified as dangerous for carriage.
--	----------------------------------------------------------

**IATA**

	The product is not classified as dangerous for carriage.
--	----------------------------------------------------------

**Further information**

	The product is not classified as dangerous for carriage.
--	----------------------------------------------------------

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

<b>Regulations</b>	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1991/181/EEC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
--------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**15.2. Chemical safety assessment**

	No data is available on this product.
--	---------------------------------------

**SECTION 16: Other information****Other information**

<b>Text of risk phrases in Section 3</b>	<b>R8 - Contact with combustible material may cause fire</b> <b>R9 - Explosive when mixed with combustible material.</b> <b>R36/37/38 - Irritating to eyes, respiratory system and skin.</b>
------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Text of Hazard Statements in Section 3	R36/38 - Irritating to eyes and skin R40 - Limited evidence of a carcinogenic effect. Ox. Sol. 1: H271 - May cause fire or explosion; strong oxidiser Skin Irrit. 2: H315 - Causes skin irritation. Eye Irrit. 2: H319 - Causes serious eye irritation. STOT SE 3: H335 - May cause respiratory irritation Ox. Sol. 3: H272 - May intensify fire; oxidiser. Carc. 2: H351 - Suspected of causing cancer .
----------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Further information**

	The information supplied in this Safety Data Sheet is designed only as guidance for storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material in combination with any other materials or in any other process.
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

1

1-12-2015





---

---

breathing.  
Remove contact

---

---

h rinsing, if in

---

---

1  
1-12-2015

---

**Classification**

O; R8-9 Xi; R36/37/38

O; R8

Xn; R40 Xi; R36/38

---

**Classification**

Ox. Sol. 1: H271; Skin Irrit. 2:

H315; Eye Irrit. 2: H319;

STOT SE 3: H335

Ox. Sol. 3: H272;

Skin Irrit. 2: H315

Eye Irrit. 2:

H319; Carc. 2: H351;

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

est and irritation  
ention.

eyelids open  
attention if

\_\_\_\_\_

taminated

\_\_\_\_\_

mptoms persist.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

remove contact

\_\_\_\_\_

\_\_\_\_\_

S.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

ent.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

ntainers for

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

---

a. Adopt

---

---

correctly



---

---

**3: 0.1**

/m3:  
/m3 total -

/m3 total -

---

**3: 20.8**  
/m3: 10  
/m3 total -

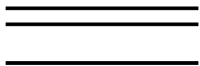
/m3 total -

---

**3: 10**

/m3: 3  
/m3 total -

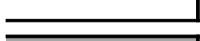
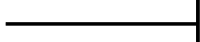
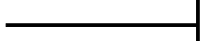
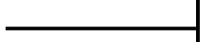
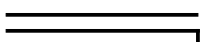
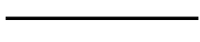
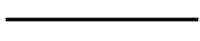
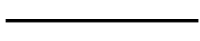
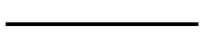
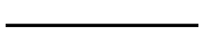
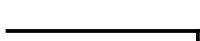
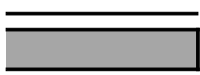
/m3 total -





1

1-12-2015



0  
).0000 mg/l

Not applicable

1  
1-12-2015

cycling.

COUNCIL  
ion of  
99/45/EC  
1488/94  
EEC,  
2010  
on the  
rg a  
gulation  
ive  
1/EC.

---

---

the safe use,  
knowledge and  
information  
al used in

---

1

1-12-2015

---