

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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MAM

Revision 1

Revision date 01-12-15

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

1.1. Product identifier

Product name	MAM
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1.2. Relevant identified uses of the substance or mixture and uses advised against

Description	Fertiliser
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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
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
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification - 67/548/EEC	Xi; R36/37/38
Main hazards	Symbols: Xi: Irritant 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 Eye Irrit. 2: H319 - Causes serious eye irritation STOT SE 3: H335 - May cause respiratory irritation.
Precautionary Statement: Prevention	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.
Precautionary Statement: Response	P302+P352 - IF ON SKIN: Wash with plenty of water. 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. 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.
Precautionary Statement: Storage	P403 + P233 -Store in a well-ventilated place.Keep container tightly closed. P405 - Store locked up
Precautionary Statement: Disposal	P501 -Dispose of contents/container to waste collection or recycling, after thorough rinsing, if in 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 Registration Number	Conc. (%w/w)	Classification
Ammonium Nitrate	6484-52-2	229-347-8			20-30 %	O; R8-9 Xi; R36/37/38
Potassium Nitrate	7757-79-1	231-818-8			10-20 %	O; R8
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 %	Xn; R40 Xi; R36/38

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
Ammonium Nitrate	6484-52-2	229-347-8			20-30 %	Ox. Sol. 1: H271; Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335
Potassium Nitrate	7757-79-1	231-818-8			10-20 %	Ox. Sol. 3:
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 %	Skin Irrit. 2: Eye Irrit. 2: H319; Carc. 2: H351;

3.2. Mixtures

	See section 3.2 for further information.
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SECTION 4: First aid measures**4.1. Description of first aid measures**

Inhalation	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.
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Eye contact	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.
Skin contact	Irritating to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	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

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

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

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

	Carbon dioxide (CO ₂)
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5.2. Special hazards arising from the substance or mixture

	Burning produces irritating, toxic and obnoxious fumes.
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5.3. Advice for firefighters

	Wear suitable respiratory equipment when necessary.
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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.
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6.2. Environmental precautions

	Do not allow product to enter drains. Prevent further spillage if safe.
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6.3. Methods and material for containment and cleaning up

	Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

	Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best Manual Handling considerations when handling, carrying and
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7.2. Conditions for safe storage, including any incompatibilities

	Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labelled containers.
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SECTION 8: Exposure controls/personal protection





8.1. Control parameters

8.1.1. Exposure Limit Values

Cobalt disodium ethylenediaminetetraacetate (Cobalt EDTA)	WEL 8-hr limit ppm:	WEL 8-hr limit mg/m³: 0.1
	WEL 15 min limit ppm:	WEL 15 min limit mg/m³:
	WEL 8-hr limit mg/m³ total - inhalable dust:	WEL 15 min limit mg/m³ total - inhalable dust:
	WEL 8-hr limit mg/m³ total - respirable dust:	WEL 15 min limit mg/m³ total - respirable dust:

Potassium Nitrate	WEL 8-hr limit ppm: WEL 15 min limit ppm: WEL 8-hr limit mg/m3 total - inhalable dust WEL 8-hr limit mg/m3 total - respirable dust:	WEL 8-hr limit mg/m3: 20.8 WEL 15 min limit mg/m3: 10 WEL 15 min limit mg/m3 total - inhalable dust: WEL 15 min limit mg/m3 total - respirable dust:
Zinc disodium ethylenediaminetetraacetate (Zinc EDTA)	WEL 8-hr limit ppm: WEL 15 min limit ppm: WEL 8-hr limit mg/m3 total - inhalable dust: WEL 8-hr limit mg/m3 total - respirable dust:	WEL 8-hr limit mg/m3: 10 WEL 15 min limit mg/m3: 3 WEL 15 min limit mg/m3 total - inhalable dust: WEL 15 min limit mg/m3 total - respirable dust:

8.2. Exposure controls

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Green
odour	Mild
Odour threshold	No data available
pH	3.5 - 5
Melting point	<-1 °C
Initial boiling point	>100 °C
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	1.43 - 1.48 (H2O = 1 @ 20 °C)
Partition coefficient	Not applicable
Autoignition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available
Solubility	Soluble in water

9.2. Other information

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

SECTION 10: Stability and reactivity**10. Chemical stability**

	Stable under normal conditions.
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SECTION 11: Toxicological information**11.1. Information on toxicological effects**

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

11.1.2. Mixtures

	No data is available on this product.
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11.1.3. Hazard Information

	Irritating to eyes and skin.
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11.1.4. Toxicological Information

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

SECTION 12: Ecological information**12.1. Toxicity**

Ammonium Nitrate	Fish LC50/96h: 100 mg/l	Algae LC50/96h: 1700
Potassium Nitrate	Daphnia EC50/48h: 490.0000 mg/l Fish LC50/96h: 1378.0000 mg/l	Algae IC50/72h: 1700.0000 mg/l

12.3. Bioaccumulative potential

Partition coefficient	
Ammonium Nitrate	Not applicable
Potassium Nitrate	Not applicable
Zinc Disodium ethylenediaminetetraacetate	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.
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Disposal methods

	Contact a licensed waste disposal company.
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Disposal of packaging

	Do NOT reuse empty containers. Empty containers can be sent for disposal or recycling.
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SECTION 14: Transport information**ADR/RID**

	The product is not classified as dangerous for carriage.
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IMDG

	The product is not classified as dangerous for carriage.
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IATA

	The product is not classified as dangerous for carriage.
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Further information

	The product is not classified as dangerous for carriage.
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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulations	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 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. COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on 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.
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15.2. Chemical safety assessment

	No data is available on this product.
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SECTION 16: Other information**Other information**

Text of risk phrases in Section 3	R8 - Contact with combustible material may cause fire R9 - Explosive when mixed with combustible material. R36/37/38 - Irritating to eyes, respiratory system and skin. R36/38 - Irritating to eyes and skin R40 - Limited evidence of a carcinogenic effect.
Text of Hazard Statements in Section 3	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 the safe use, 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 used in combination with any other materials or in any other process.
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