

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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

1.1. Product identifier

Product name MR2

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

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

Main hazards No Significant Hazard

2.2. Label elements

Risk phrases No Significant Hazard.

2.3. Other hazards

Other hazards None.

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)
Disodium octaborate tetrahydrate		12280-03-4	234-541-0		0-0,5%
Potassium Nitrate		7757-79-1	231-818-8		40-50%
Magnesium Nitrate Hexahydrate		13446-18-9	233-826-7		1-10%

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)
Disodium octaborate tetrahydrate		12280-03-4	234-541-0		0-0,5%
Potassium Nitrate		7757-79-1	231-818-8		40-50%
Magnesium Nitrate Hexahydrate		13446-18-9	233-826-7		1-10%

3.2. Mixtures

See section 3.1 for further information.

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

Inhalation	May cause irritation to mucous membranes. Move the exposed person to fresh air
Eye contact	May cause irritation to eyes. Rinse immediately with plenty of water for 15 minute the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin contact	May cause irritation to skin. Wash off immediately with plenty of soap and water. contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	May cause irritation to mucous membranes. DO NOT INDUCE VOMITING. Seek attention if irritation or symptoms persist.

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

Inhalation	No Significant Hazard.
Eye contact	No known adverse health effects.
Skin contact	No irritation expected
Ingestion	No Significant Hazard

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

No first aid requirements

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

Use extinguishing media appropriate to the surrounding fire conditions.

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.

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 co

disposal. Clean spillage area thoroughly with plenty of water.

6.4. Reference to other sections

See section 2 & 3 for further information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area; 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.

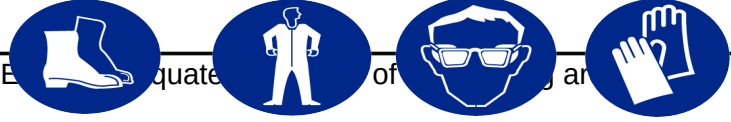
SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

Potassium Nitrate	WEL 8-hr limit ppm:	WEL 8-hr limit mg/m ³ :
	WEL 15 min limit ppm:	WEL 15 min limit mg/m ³ :
	WEL 8-hr limit mg/m ³ total inhalable dust:	WEL 15-min limit mg/m ³ total inhalable dust:
	WEL 8-hr limit mg/m ³ total respirable dust:	WEL 15 min limit mg/m ³ total respirable dust:

8.2. Exposure controls

8.2.1. Appropriate engineering controls	
8.2.2. Individual protection measures	Wear protective clothing.
Eye / face protection	In case of splashing, wear: Approved safety goggles.
Skin protection - Handprotection	Chemical resistant gloves (PVC).

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	3.75 - 5.25
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	1.56 - 1.6 (Water = 1 @ 20 °C)
Partition coefficient	No data available
Autoignition temperature	No data available
Explosive properties	No data available
Oxidising properties	No data available
Solubility	Soluble in water

9.2. Other information

Gas group	no data available
Benzene Content	Not determined
Lead content	Not determined
VOC (Volatile organic compounds)	Not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

	No Significant Hazard
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10.2. Chemical stability

	Stable under normal conditions.
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10.3. Possibility of hazardous reactions

	No Significant Hazard
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10.4. Conditions to avoid

	No Significant Hazard
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10.5. Incompatible materials

	No data is available on this product
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10.6. Hazardous decomposition products

	No data available on this product.
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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	No Significant Hazard.
Serious eye damage/irritation	May cause irritation to eyes.
Respiratory or skin sensitisation	No Significant Hazard.
Germ cell mutagenicity	No data is available on this product.
Carcinogenicity	No data is available on this product.
Reproductive toxicity	

11.1.4. Toxicological Information

Disodium octaborate tetrahydrate	Oral Rat LD50: 2550mg/Kg	Dermal Rabbit LD50:
Potassium Nitrate	Dermal Rat LD50: 2000	Oral Rat LD50: 2000

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

Disodium octaborate tetrahydrate	Daphnia EC50/48h: 113.0000 mg/l	Algae IC50/72h: 10.00
	Fish LC50/96h: 80.0000 mg/l	Green algae EC50/96h:
	Daphnia LC50/24h: 242mg/l	
Potassium Nitrate	Daphnia EC50/48h: 490.0000 mg/l	Algae IC50/72h: 1700

	Fish LC50/96h: 1378.0000 mg/l
Magnesium Nitrate Hexahydrate	Daphnia EC50/48h: 490.0000 mg/l Fish LC50/96h: 1378.0000 mg/l

12.3. Bioaccumulative potential

Partition coefficient

	Potassium Nitrate Not applicable	Magnesium Nitrate Hexahydrate No data available
	Disodium octaborate tetrahydrate Not applicable	

Further information

	No data is available on this product
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MR2

Revision
Revision date

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SECTION 13: Disposal considerations

General information

	Dispose of in compliance with all local and national regulations.
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Disposal of packaging

	Empty containers can be cleaned with water. Empty containers can be sent to land cleaning, if in compliance with local and national regulations
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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

	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. REGULATION (EU) 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.
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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

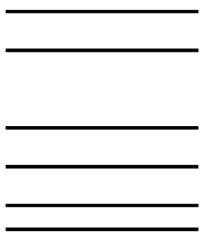
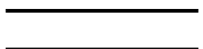
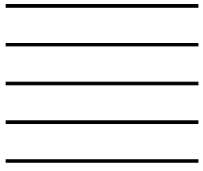
Text of risk phrases in Section 3	R8 - Contact with combustible material may cause fire. R36 - Irritating to eyes R60 - May impair fertility R61 - May cause harm to the unborn child.
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Text of Hazard Statements in Section 3	Ox. Sol. 3: H272 - May intensify fire; oxidiser. Eye Irrit. 2: H319 - Causes serious eye irritation.
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Further information	The information supplied in this Safety Data Sheet is designed only as guidance for the safe 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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Classification

T;R60-61
O; R8
Xi; R36

Classification

Repr.1B: H360FD
Ox. Sol. 3: H272;
Eye Irrit. 2: H319;



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SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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MR1

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

1.1. Product identifier

Product name	MR1
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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	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

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

Main hazards	No Significant Hazard
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2.2. Label elements

Risk phrases	The product is classified as non hazardous.
	No Significant Hazard.

2.3. Other hazards

Other hazards	None.
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SECTION 3: Composition/information on ingredients

3.2. Mixtures

67/548/EEC / 1999/45/EC

Chemical Name	Index No.	CAS No.	EC No.	REACH Registr Number
Potassium Nitrate		7757-79-1	231-818-8	

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	May cause irritation to mucous membranes. Move the exposed person to fresh air.
Eye contact	May cause irritation to eyes. Rinse immediately with plenty of water. Keep the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin contact	May cause irritation to skin. Wash off immediately with plenty of water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	May cause irritation to mucous membranes. DO NOT INDUCE VOMITING. Seek medical attention if irritation or symptoms persist.

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

Inhalation	May cause irritation to respiratory system.
Eye contact	May cause irritation to eyes.
Skin contact	May cause irritation to skin.
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.
Skin contact	No sensitization effects reported. Wash with soap and water.
Ingestion	May cause irritation to mucous membranes.

SECTION 5: Firefighting measures

5.1. Extinguishing media

	Use extinguishing media appropriate to the surrounding fire.
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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.
--	--

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

	Absorb with inert, absorbent material. Sweep up. Transfer to appropriate disposal. Clean spillage area thoroughly with plenty of water.
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6.4. Reference to other sections

	See section 2, 8, 13 for further information.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

	Avoid contact with eyes and skin. Ensure adequate ventilation. Observe best Manual Handling considerations when handling, carry
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7.2. Conditions for safe storage, including any incompatibilities

	Keep in a cool, dry, well ventilated area. Keep containers tightly sealed. Store in labelled containers.
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7.3. Specific end use(s)

	Fertiliser.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

Potassium Nitrate	WEL 8-hr limit ppm: WEL 15 min limit ppm:
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8.2. Exposure controls

8.2.1. Appropriate engineering controls	Ensure adequate ventilation of the working area.
8.2.2. Individual protection measures	Wear protective clothing.
Eye / face protection	In case of splashing, wear: Approved safety goggles.
Skin protection - Handprotection	Chemical resistant gloves (PVC).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State	Liquid
Colour	Green
odour	Characteristic
pH	3.75 - 5.25
Melting point	No data available
Boiling point	No data available
Flash point	Not applicable
Evaporation rate	No data available
Flammability limits	Not applicable
Vapour Flammability	Not applicable
Vapour pressure	No data available
Vapour density	No data available
Relative density	1.51 - 1.55 (Water = 1 °C)
Partition coefficient	Not applicable
Autoignition temperature	Not applicable
Viscosity	No data available
Explosive	Not applicable
Oxidising	Not applicable
Solubility	Soluble in water

9.2. Other information

Conductivity	no data available
Surface tension	no data available
Gas group	no data available
Benzene Content	no data available
Lead content	no data available
VOC (Volatile organic)	no data available

compounds)

Water solubility

Soluble in water. Soluble in water.

SECTION 10: Stability and reactivity

10.1. Reactivity

Avoid contact with: Strong bases.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data is available on this product.

10.4. Conditions to avoid

Burning produces obnoxious and irritating fumes.
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10.5. Incompatible materials

Strong bases.

10.6. Hazardous decomposition products

No data available on this product.

SECTION 11: Toxicological information
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11.1. Information on toxicological effects

Acute toxicity	No data is available on this product.
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11.1.4. Toxicological Information
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Potassium Nitrate	Dermal Rat LD50: 2000
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SECTION 12: Ecological information

12.1. Toxicity

Potassium Nitrate	Daphnia EC50/48h: 490.0000 mg/l Fish LC50/96h: 1378.0000 mg/l
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No data is available on this product.

12.2. Persistence and degradability
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Readily biodegradable.

12.3. Bioaccumulative potential
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No data is available on this product.

12.4. Mobility in soil

Miscible in water.

12.5. Results of PBT and vPvB assessment

Caution - substance not yet fully tested.

12.6. Other adverse effects

May cause long-term adverse effects in the aquatic environ
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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 recycled.
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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.
--	--

IATA

	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****Regulations**

	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAM 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 and 93/105/EC and 2000/21/EC. COMMISSION REGULATION (EU) No 2017/745 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) in relation to the 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 and 93/105/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****Revision**

	This document differs from the previous version in the following aspects: 9 - 9.1. Information on basic physical and chemical properties (S) 9 - 9.1. Information on basic physical and chemical properties (C) 9 - 9.1. Information on basic physical and chemical properties (O) 9 - 9.1. Information on basic physical and chemical properties (PI) 9 - 9.1. Information on basic physical and chemical properties (B)
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	<p>9 - 9.1. Information on basic physical and chemical properties (M)</p> <p>9 - 9.1. Information on basic physical and chemical properties (FI)</p> <p>9 - 9.1. Information on basic physical and chemical properties (FI)</p> <p>9 - 9.1. Information on basic physical and chemical properties (AI)</p> <p>9 - 9.1. Information on basic physical and chemical properties (E)</p> <p>9 - 9.1. Information on basic physical and chemical properties (O)</p> <p>9 - 9.1. Information on basic physical and chemical properties (Vi)</p> <p>9 - 9.1. Information on basic physical and chemical properties (R)</p> <p>9 - 9.1. Information on basic physical and chemical properties (Vi)</p> <p>9 - 9.1. Information on basic physical and chemical properties (Vi)</p> <p>9 - 9.1. Information on basic physical and chemical properties (E)</p> <p>9 - 9.1. Information on basic physical and chemical properties ().</p> <p>9 - 9.1. Information on basic physical and chemical properties ().</p>
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MR1

Other information

	<p>9 - 9.1. Information on basic physical and chemical propert</p> <p>9 - 9.2. Other information (Conductivity).</p> <p>9 - 9.2. Other information (Partition coefficient).</p> <p>9 - 9.2. Other information (Gas group).</p> <p>9 - 9.2. Other information (Surface tension).</p> <p>9 - 9.2. Other information (Benzene Content).</p> <p>9 - 9.2. Other information (Product Subcategory).</p> <p>9 - 9.2. Other information (Lead content).</p> <p>16 - Maximum content of VOC.</p>
Text of risk phrases in Section 3	R8 - Contact with combustible material may cause fire.

Further information

	<p>The information supplied in this Safety Data Sheet is design use, storage and handling of the product. This information is based on the best knowledge and belief at the date of publication however no guarantee is made for its accuracy. This information relates only to the specific material and is not valid for such material used in combination with any other material.</p>
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Revision 1
Revision date 30-9-2014

[Redacted]

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Revision 1
Revision date 30-9-2014

[Redacted]

Conc. (%w/w)	Classification

[Redacted]

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of water for 15 minutes holding
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ity of soap and water. Remove
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JCE VOMITING. Seek medical

medical attention if

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conditions.

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to suitable, labelled containers for
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Revision 1
Revision date 30-9-2014

tion of the working area. Adopt
ing and dispensing.

ghtly closed. Store in correctly

WEL 8-hr limit mg/m3: 20.8
WEL 15 min limit mg/m3: 10

Revision 1
Revision date 30-9-2014

Oral Rat LD50: 2000

Algae IC50/72h: 1700.0000 mg/l

Revision 1
Revision date 30-9-2014



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sent for disposal or recycling.



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as well as Council Directive
>, 93/105/EC and 2000/21/EC.

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melting point).
flash point).
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autoignition temperature).
explosive).
oxidizing).
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relative density).
viscosity).
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evaporation rate).

Revision 1
Revision date 30-9-2014

ies (Solubility).

ned only as guidance for the safe
is correct to the best of our
| guarantee is made to its
rial designated and may not be
materials or in any other process.
