



SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1	Product Name	MA4
1.2	Relevant identified uses of the substance	Marking solution
1.3	Details of the supplier	Universal Marking Systems Ltd
		Dukes Mill
		Station Approach
		Medstead
		Alton
		Hants
		GU34 5EN
		England
	Telephone	+44 (0) 1420 565800
	Email	Info@ums.co.uk
	Web	www.ums.co.uk
1.4	Emergency Telephone Number	+44(0) 1420 565800

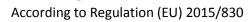
SECTION 2: HAZARDS IDENTIFICATION

2.1	Classification of the substance or mixture	
	Classification of mixture	EC 1272/2008 (CLP) Not classified
	Physical hazards	None
	Health hazards	None
	Environmental Hazards	None
2.2	Label Elements	
	Hazard pictograms	None
	Signal Word	None
	Hazard statement	None
	Precautionary statements	None
	Contains	
2.3	Other Hazards	This product is low hazard but may cause slight skin & eye irritation

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1	Substances	-
3.2	Mixtures	
	Name of Ingredient	Potassium nitrate
	CAS No	7757-79-1
	Approx. content	<4%
	M-Factor	-
	Classification	Ox. Sol. 2; H272
		Skin Irrit. 2; H315
		Eye Irrit. 2; H319
		STOT SE3; H335
3.3	Further Information	Other components are either low hazard or are below the
		concentration limit for classification.

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SECTION 4: FIRST AID MEASURES

4.1	Description of First Aid Measures	
	General information	-
	Inhalation	If inhaled, provide fresh air, warmth and rest. If necessary, seek medical advice.
	Ingestion	If product is swallowed, DO NOT induce vomiting. Allow patient to vomit on his own accord. Give copious water to drink and seek medical advice. Show product label or this safety data sheet.
	Eye contact	In case of contact with eyes, rinse immediately with plenty of water until irritation subsides.
	Skin contact	Clean areas of skin affected with soap and plenty of water.
4.2	Most important symptoms & side effects	
	General information	-
	Inhalation	No specific symptoms.
	Ingestion	No Specific symptoms.
	Skin contact	May cause slight irritation.
	Eye contact	May cause slight irritation.
4.3	Indication of any immediate medical attention and special treatment needed	
	Notes for the doctor	Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1	Suitable extinguishing media	To suit local surroundings (e.g. water spray, carbon dioxide, foam, chemical powder).
5.2	Special hazards arising from the mixture	
	Specific hazards	Decomposition products released in a fire, (e.g. oxides of nitrogen), should be considered toxic if inhaled.
	Hazardous combustion products	This product is non-combustible.
5.3	Advice for firefighters	
	Protective actions during firefighting	No specific actions.
	Special protective equipment for firefighters	Fire fighters should wear protective equipment appropriate for surrounding fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Personal precautions, protective	Avoid contact with skin and eyes. Wear personal protective equipment
	equipment and emergency procedures	as detailed in section 8.
6.2	Environmental precautions	Do not allow large volumes to get into waste water or waterways; if this occurs, inform the relevant water authority at once.
6.3	Methods and material for containment and cleaning up	LARGE LEAKS & SPILLAGES: Adhere to personal protective measures. Take up with absorbent material, e.g. sand, into tightly closable containers. DO NOT use organic absorbent material. Label container

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According to Regulation (EU) 2015/830

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		and dispose of as prescribed.
		MINOR LEAKS & SPILLAGES: Wear protective gloves and absorb spillage
		into a damp cloth. Ensure cloth is fully rinsed out afterwards. Wash
		contaminated area with plenty of water.
6.4	Reference to other sections	For personal protective equipment see section 8. For waste disposal see
		section 13.

SECTION 7: HANDLING AND STORAGE

7.1	Precautions for safe handling	
	Usage precautions	Handle in accordance with good hygiene and safety practice. Wear suitable protective clothing as specified in section 8. Avoid contact with organic or combustible materials. CAUTION: This includes wood, paper and rags. If these become contaminated and are allowed to dry out, they may spontaneously catch fire.
7.2	Conditions for safe storage, including any incompatibilities	
	Storage precautions	Ensure adequate ventilation of the storage area. Keep containers tightly closed, cool and dry when not in use.
	Storage Class	12
7.3	Specific end use(s)	
	Usage description	Marking solution.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTIONS

8.1	Control Parameters	
	Occupational exposure limits	No Workplace Exposure Limits (WEL) assigned.
		LTEL (8 hour TWA): - ppm - mg/m ³
		STEL (15 min): - ppm - mg/m³
	Exposure controls	
	Appropriate engineering controls	Ensure adequate ventilation of working area. Provide local exhaust
		ventilation if necessary.
	Individual protection measures	Observe normal standards for handling chemicals.
		Wash hands before breaks and after work.
		Store work clothes separately.
		Do not eat, drink or smoke in the working area.
		Wear personal protective equipment appropriate to the task (see
		below).
		Personal protective equipment should be selected as appropriate for
		the identified hazard(s). It should be regularly inspected for soundness
		against leaks, bad fitting and possible chemical penetration.
		Recommended safe use periods should never be exceeded.
		Not required
	mh .	Lightweight chemical resistant gloves for normal use.
	THE STATE OF THE S	PVC gloves for dealing with large leaks or spillages.

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None required for normal use. Protective overalls for dealing with large leaks or spillages.
Not required.
Safety glasses

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

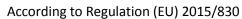
9.1	Information on basic physical and chemical properties (typical data)	
	Appearance	Liquid supplied in 1 litre and 125 ml plastic bottles
	Colour	Not available
	Odour	Not available
	Odour threshold	Not available
	рН	Approx. 6.2
	Melting point	Not available
	Initial boiling point and range	100°C approx.
	Flash point	Non-combustible
	Evaporation rate	Not available
	Evaporation factor	Not available
	Upper/lower flammability or explosive	
	limits	Non-combustible
	Vapour pressure	Not available
	Vapour density	Not available
	Relative density	Approx. 1
	Bulk density	Not applicable
	Solubility(ies)	Miscible with water.
	Partition coefficient	Not available
	Auto-ignition temperature	Non-combustible
	Decomposition temperature	Not available
•	Viscosity	Not available

SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity	Stable under normal use and storage conditions.
10.2	Chemical stability	May react with organic materials.
10.3	Possibility of hazardous reactions	May react with reducing agents.
10.4	Conditions to avoid	Avoid contact with combustible materials like wood, paper and rags.
10.5	Incompatible materials	Strong reducing agents
10.6	Hazardous decomposition product(s)	May generate toxic fumes if involved in a fire.

SECTION 11: TOXICOLOGICAL INFORMATION

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11.1	Information on toxicological effects		
	Toxicological effects	No significant toxicological data as this is a low hazard product.	
	Acute toxicity	LD ₅₀ rat (oral): 3750 mg/kg - data for Potassium nitrate RTECS TT3700000	
	Skin corrosion/irritation	May cause slight irritation to skin.	
	Serious eye damage/irritation	May cause slight irritation to eyes.	
	Respiratory sensitisation	Not sensitising.	
	Inhalation	Low hazard	
	Ingestion	Low hazard	
	Skin contact	May cause slight irritation.	
	Eye contact	May cause slight irritation	

SECTION 12: ECOLOGICAL INFORMATION

12.1	Ecotoxicity	LC _{so} - Gambusia affinis: 22.5mg/1/96h – data for Potassium nitrate	
		EC _{so} - Daphnia magna: 226mg/1/72h – data for Potassium nitrate	
12.2	Toxicity Low toxicity		
12.3	Persistence and degradability No data available		
12.4	Mobility in soil	in soil No data available	
12.5	Results of PBT and vPvB assessment	No data available	
12.6	Other adverse effects	rse effects This product is low hazard and unlikely to cause environmental damage.	

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods	
	General information	In accordance with national (i.e. Hazardous Waste Regulations in the
		UK) and local authority regulations, e.g. incineration.
		Treat empty containers in the same way as the product or if possible
		wash out thoroughly and recycle.
	Disposal methods	In the UK, this product and its contaminated packaging can be disposed
		of as normal industrial waste.

SECTION 14: TRANSPORT INFORMATION

14.1	UN Number	The product is not hazardous for transport.

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According to Regulation (EU) 2015/830

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14.2	UN proper shipping name	-
14.3	Transport hazard classes	-
14.4	Packing group	-
14.5	Environmental hazards	-
14.6	Special Precautions for user	-
14.7	Transport in bulk according to Annex II of	
	MARPOL 73/78 and the IBC Code	Not intended to be transported in bulk.

SECTION 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	
	National regulations	Ensure compliance with all relevant national regulations.
	EU legislation	In accordance with EC Regulation No. 1272/2008
	Guidance	Ensure compliance with all relevant guidance.
	German Water Hazard Class (WGK)	1
15.2	Chemical safety assessment	Not applicable.

SECTION 16: OTHER INFORMATION

16.1	General Information	RTECS;	RTECS; Suppliers' safety data sheets; ECHA Classification & Labelling	
		Inventory		
16.2	Hazard statements in full	H272	May intensify fire; oxidiser	
		H315	Causes skin irritation	
		H319	Causes serious eye irritation	
		H335	May cause respiratory irritation	

Disclaimers

Information contained in this publication or as otherwise supplied to users is believed to be accurate and is given in good faith, but it is for the users to satisfy themselves of the suitability of the products for their own particular purpose. Universal Marking Systems gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded expect to the extent that exclusion is prevented by law. Universal Marking Systems accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.

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