

SDS Reference UN
Version No. 5
Revision Date 13/08/2015
Origination Date 27/10/1997

Safety Data Sheet

REVISION



Product Name ME15

1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY

Product Name ME15
Synonym (s) -
Product Use/s ELECTRO-CHEMICAL MARKING SOLUTION
Company Identification Universal Marking Systems Ltd
Unit 4, Dukess Mill
Station Approach Telephone 01420 565 800
Medstead, GU34 5EN
Emergency Telephone 01420 565 800
e-mail address info@ums.co.uk

2. HAZARDS IDENTIFICATION

Classification of mixture (Regulation (EC) No. 1272/2008 (CLP))

Eye Irritant 2; H319

Label elements

Hazard pictogram(s)



Signal word WARNING

Hazard statements H319: Causes serious eye irritation.

Precautionary statements P264: Wash hands and exposed skin thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313: If eye irritation persists: Get medical advice/attention.

Further information Contains Citric acid and Ammonium chloride.

Other hazards May cause slight skin irritation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS-No	EINECS/ELINCS	Classification (Reg. EC 1272/2008)	Conc. %
Ammonium chloride	12125-02-9	235-186-4	Acute Tox. 4; H302 Eye Irrit. 2; H319	< 4
Citric acid	77-92-9	201-069-1	Eye Irrit. 2; H319	< 7
Potassium nitrate	7757-79-1	231-818-8	Ox. Sol. 3; H272 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE3; H335	< 2

Further Information: Other components are either low hazard or are below the concentration limit for classification. Ammonium chloride has been assigned a workplace exposure limit.

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4. FIRST AID MEASURES

Inhalation	If inhaled, provide fresh air, warmth and rest.
Skin contact	Clean areas of skin affected with soap and plenty of water.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
Ingestion	Allow the patient to vomit on his own accord. DO NOT induce vomiting. Give copious water to drink and if necessary seek medical advice.
Further information	-

5. FIRE FIGHTING MEASURES

General hazard	THE PRODUCT IS NON-COMBUSTIBLE
Extinguishing media	To suit local surroundings (e.g. water spray, carbon dioxide, foam, chemical powder)
Extinguishing media not to be used	-
Special exposure hazards	Decomposition products released in a fire should be considered toxic if inhaled.
Protective equipment	Fire fighters should wear protective equipment appropriate for surrounding fire.
Further information	Residues caused by evaporation are oxidising, will sustain fire & may explode.

6. ACCIDENTAL RELEASE MEASURES

Methods for 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 and dispose of as hazardous waste. MINOR LEAKS & SPILLAGES: Wear protective gloves. Absorb spillage into a damp cloth. Ensure cloth is fully rinsed out afterwards. Wash contaminated area with plenty of water.
Environmental considerations	Do not allow large volumes to get into waste water or waterways; if this occurs, inform the relevant water authority at once.
Further information	Wash decontaminated area well with plenty of water.

7. HANDLING & STORAGE

Advice on safe handling	Handle in accordance with good hygiene and safety practice. Avoid contact with skin & eyes. Wear suitable protective clothing as specified in section 8.
Storage conditions	Ensure adequate ventilation of the storage area. Keep containers tightly closed, cool and dry when not in use.
Further information	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.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit values	Workplace Exposure Limit (WEL) for Ammonium chloride, fume (HSE EH40): LTEL (8 hour TWA): - ppm 10 mg/m ³ STEL (15min) - ppm 20 mg/m ³
Engineering controls	Ensure adequate ventilation of working area.
Personal protection	Observe normal standards for handling chemicals. Avoid eye contact. Wash hands before breaks and after work. Wear personal protective equipment appropriate to the task (see below).
Eye protection	Safety glasses for normal use. Goggles for dealing with large leaks or spillages.
Skin protection	Lightweight chemical resistant gloves.
Respiratory protection	Not required.
Other personal protection	Not required.
Environmental exposure controls	No significant issues.
Further Information	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.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical form	Liquid supplied in 1 litre and 125 ml bottles.
Colour	Clear.
Odour	Not available.
Molecular weight	Not applicable
Molecular formula	Not applicable
pH	Approx. 2.9
Boiling pt / range	100°C approx.
Melting pt / range	Not available
General Flammability	Non-combustible
Flash point	Non-combustible
Auto-ignition temperature	Non-combustible
Decomposition temperature	Not available
Relative Density	Approx. 1
Explosive properties	Not explosive
Oxidising properties	Mildly oxidising

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9. PHYSICAL & CHEMICAL PROPERTIES

Vapour pressure	Not available
Vapour Density	Not available
Relative Evaporation Rate (n-Butyl Acetate = 1)	Not available
Viscosity	Not available
Water solubility	Miscible
Partition coefficient (log P or log K n-octanol / water)	Not available
Additional information	-

10. STABILITY & REACTIVITY

Stability	Stable under normal conditions.
Conditions to avoid	Combustible materials e.g. wood, paper, rags; alkalis and organic substances.
Incompatible Materials	Strong reducing agents and alkalis.
Hazardous decomposition products	May generate toxic fumes if involved in a fire.
Further information	Residues caused by evaporation are oxidising, will sustain fire & may explode.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	LD ₅₀ rat (oral)	3000 mg/kg	data for Citric acid RTECS GE7350000
Acute irritation/corrosivity	Skin (rabbit): 500 mg/24H – MILD Eye (rabbit): 0.75 mg/24H - SEVERE		data for Citric acid data for Citric acid
Sensitisation	No data available.		
Repeated dose toxicity	No data available.		
CMR effects	No data available.		
Further information	-		

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12. ECOLOGICAL INFORMATION

Ecotoxicity	LC ₅₀ fish EC ₅₀ Daphnia magna	440 – 760 mg/l/96H ca. 120 mg/l/72H	data for Citric acid data for Citric acid
Mobility	Miscible with water.		
Persistence and degradability	No data available.		
Bioaccumulative potential	No data available.		
Results of PBT assessment	No data available.		
Other adverse effects	This product is unlikely to cause environmental damage.		

13. DISPOSAL CONSIDERATIONS

Advice on disposal	In accordance with national (i.e. Hazardous Waste Regulations in the UK) and local authority regulations, e.g. incineration.
Contaminated packaging	Treat empty containers in the same way as the product or if possible wash out thoroughly and recycle.
Further information	In the UK, this product and its containers must be disposed of as Hazardous Waste.

14. TRANSPORT INFORMATION

United Nations number	The product is not classified for transport
Proper shipping name	-
Class	-
Subsidiary risk/s	-
Packing group	-
Marine pollutant	-
Emergency action code	-
Hazard Identification Number	-
Further information	-

15. REGULATORY INFORMATION

Classification & labelling in accordance with EC Regulation No. 1272/2008

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16. OTHER INFORMATION

Key to H statements in Section 3	H272	May intensify fire; oxidiser.
	H302	Harmful if swallowed.
	H315	Causes skin irritation.
	H319	Causes serious eye irritation.
	H335	May cause respiratory irritation.
Sources of data	RTECS; HSE EH40; suppliers' safety data sheets; ECHA Classification & Labelling Inventory.	
Date of Revision	13/08/2015	
Reason for revision	Amended information and advice to improve relevance for end users.	
Sections revised	2, 5, 6, 7, 8, 9, 10, 16	

This information is based on our present state of knowledge and is intended to describe our products from the point of view of the safety requirements. It should not be construed as guaranteeing specific properties.

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