

SDS Reference UN4400  
Version No. 5  
Revision Date 21/12/2015  
Origination Date 21/01/2005

# Safety Data Sheet

## REVISION



Product Name ME 4

### 1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY

**Product Name** ME 4  
**Synonym (s)** -  
**Product Use/s** MARKING  
**Company Identification** Universal Marking Systems Ltd  
Unit 4, Dukes Mill  
Station Approach Telephone 01420 565 800  
Medstead, GU34 5EN  
**Emergency Telephone** 01420 565 800  
**e-mail address** [info@ums.co.uk](mailto: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.

Other hazards None.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS-No	EINECS/ELINCS	Classification (Reg. EC 1272/2008)	Conc. %
Citric acid	77-92-9	201-069-1	Eye Irrit. 2; H319	5 – 10
Ammonium nitrate	6484-52-2	229-347-8	Ox. Sol. 3; H272	20 - 25

**Further Information:** Other components are either low hazard or are below the concentration limit for classification.

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### 4. FIRST AID MEASURES

<b>Inhalation</b>	If inhaled, provide fresh air, warmth and rest.
<b>Skin contact</b>	Clean areas of skin affected with soap and plenty of water.
<b>Eye contact</b>	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.
<b>Ingestion</b>	Allow the patient to vomit on his own accord. DO NOT induce vomiting. Give copious water to drink and if necessary seek medical advice.
<b>Further information</b>	-

### 5. FIRE FIGHTING MEASURES

<b>General hazard</b>	PRODUCT IS NON-COMBUSTIBLE BUT MAY INTENSIFY A FIRE IF INVOLVED.
<b>Extinguishing media</b>	To suit local surroundings (e.g. water spray, carbon dioxide, foam, chemical powder)
<b>Extinguishing media not to be used</b>	-
<b>Special exposure hazards</b>	Decomposition products released in a fire should be considered toxic if inhaled.
<b>Protective equipment</b>	Fire fighters should wear protective equipment appropriate for surrounding fire.
<b>Further information</b>	-

### 6. ACCIDENTAL RELEASE MEASURES

<b>Methods for cleaning up</b>	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 and absorb spillage into a damp cloth. Ensure cloth is fully rinsed out afterwards. Wash contaminated area with plenty of water.
<b>Environmental considerations</b>	Do not allow large volumes to get into waste water or waterways; if this occurs, inform the relevant water authority at once.
<b>Further information</b>	Wash decontaminated area well with plenty of water.

### 7. HANDLING & STORAGE

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

<b>Exposure limit values</b>	Workplace Exposure Limits (WEL) – none assigned. LTEL (8 hour TWA): - ppm - mg/m <sup>3</sup> STEL (15min) - ppm - mg/m <sup>3</sup>
<b>Engineering controls</b>	Ensure adequate ventilation of working area.
<b>Personal protection</b>	Observe normal standards for handling chemicals. Avoid eye contact. Wash thoroughly after handling (shower if necessary). Store working clothes separately. Wear personal protective equipment appropriate to the task (see below).
<b>Eye protection</b>	Safety spectacles for normal use. Goggles or full-face visor for dealing with large leaks or spillages.
<b>Skin protection</b>	Lightweight chemical resistant gloves for normal use. PVC gloves for dealing with large leaks or spillages.
<b>Respiratory protection</b>	None required.
<b>Other personal protection</b>	None required for normal use. Protective overalls if dealing with large leaks or spillages.
<b>Environmental exposure controls</b>	Data not supplied.
<b>Further Information</b>	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.

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### 9. PHYSICAL & CHEMICAL PROPERTIES

Physical form	Liquid.
Colour	Not available.
Odour	Not available.
Molecular weight	Not applicable.
Molecular formula	Not applicable.
pH	Approx. 2.5
Boiling pt / range	Not available.
Melting pt / range	Not available
General Flammability	Non-combustible.
Flash point	Non-combustible.
Auto-ignition temperature	Non-combustible..
Decomposition temperature	Not available
Relative Density	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not available
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, alkalis and organic substances. Avoid contact with wood, paper and rags.
Incompatible materials	Strong reducing agents and alkalis.
Hazardous decomposition products	May generate toxic oxides of nitrogen if involved in a fire.
Further information	-

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### 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity</b>	LD <sub>50</sub> rat (oral)	3000 mg/kg	data for Citric acid RTECS GE7350000
	LD <sub>50</sub> rat (oral)	2217 mg/kg	data for Ammonium nitrate RTECS BR9050000
<b>Acute irritation/corrosivity</b>	Skin (rabbit): 500 mg/24H - MILD		data for Citric acid RTECS GE7350000
	Eye (rabbit): 0.75 mg/24H - SEVERE		data for Citric acid RTECS GE7350000
<b>Sensitisation</b>	No data available.		
<b>Repeated dose toxicity</b>	No data available.		
<b>CMR effects</b>	No data available.		
<b>Further information</b>	-		

### 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	LC <sub>50</sub> fish	440 - 760 mg/l/96H	data for Citric acid
	EC <sub>50</sub> daphnia magna	ca. 120 mg/l/72H	data for Citric acid
	LC <sub>50</sub> fish	5657 mg/l/96H	data for Ammonium nitrate
<b>Mobility</b>	Miscible with water..		
<b>Persistence and degradability</b>	No data available.		
<b>Bioaccumulative potential</b>	No data available.		
<b>Results of PBT assessment</b>	No data available.		
<b>Other adverse effects</b>	This product is unlikely to cause environmental damage.		

### 13. DISPOSAL CONSIDERATIONS

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

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### 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

### 16. OTHER INFORMATION

**Key to H statements in Section 3** H272 May intensify fire; oxidizer.  
H319 Causes serious eye irritation.  
**Sources of data** RTECS; suppliers' safety data sheets; ECHA Classification & Labelling Inventory.  
**Date of Revision** 21/12/2015  
**Reason for revision** Full revision to comply with EC Regulation No. 1272/2008.  
**Sections revised** 1, 2, 3, 4, 5, 6, 7, 8, 10, 13, 15, 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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