

Safety Data Sheet

According to Regulation (EU) 2015/830



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

1.1	Product Name	ME12
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)
	Physical hazards	None
	Health hazards	Eye Damage 1; H318 Skin Irritation 2; H315
	Environmental Hazards	None
2.2	Label Elements	
	Hazard pictograms	A red diamond-shaped hazard pictogram with a white background. Inside the diamond, there are two black silhouettes of hands, one above the other, with black liquid dripping from the palms. This is the standard GHS pictogram for Corrosive (C).
	Signal Word	DANGER
	Hazard statement	H318: Causes serious eye damage. H315: Causes serious skin irritation.
	Precautionary statements	P280: Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P332 + P313: If skin irritation occurs: Get medical advice/attention. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a poison centre or doctor/physician. P362: Take off contaminated clothing and wash before re use.
	Contains	Nitric acid and Ammonium chloride
2.3	Other Hazards	None

Safety Data Sheet

According to Regulation (EU) 2015/830



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1	Substances	-
3.2	Mixtures	
	Name of Ingredient	Nitric acid
	CAS No	7697-37-2
	Approx. content	< 5%
	M-Factor	-
	Classification	Ox. Liq. 2; H272 Skin Corr. 1A; H314 EUH071
	Name of ingredient	Ammonium chloride
	CAS No	12125-02-9
	Approx. content	< 2%
	M-Factor	-
	Classification	Acute Tox. 4; H302 Eye Irrit. 2; H319
3.3	Further Information	Nitric acid & Ammonium chloride have been assigned Workplace Exposure Limits. Other components are either low hazard or are below the concentration limit for classification.

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. Drink plenty of water and SEEK MEDICAL ADVISE. Beware of aspiration if vomiting does occur.
	Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. SEEK MEDICAL ADVICE.
	Skin contact	Clean areas of skin affected with soap and plenty of water. If irritation persists, SEEK MEDICAL ADVICE.
4.2	Most important symptoms & side effects	
	General information	-
	Inhalation	No specific symptoms.
	Ingestion	No specific symptoms.
	Skin contact	Serious irritation and redness of the skin.
	Eye contact	Causes serious eye damage.
4.3	Indication of any immediate medical attention and special treatment needed	
	Notes for the doctor	Treat symptomatically.
4.4	Further Information	Take measures to avoid further contamination or contact. Remove contaminated clothing immediately, to be disposed of or washed before reuse.

Safety Data Sheet

According to Regulation (EU) 2015/830



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 and carbon), should be considered toxic if inhaled.
	Hazardous combustion products	This product is non-combustible.
5.3	Advice for firefighters	
	Protective actions during firefighting	As appropriate for surrounding fire.
	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 equipment and emergency procedures	Avoid contact with skin and eyes. Wear protective equipment as specified 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, sawdust, into tightly closable containers. Label container and dispose of as hazardous waste. MINOR LEAKS & SPILLAGES: Wear protective gloves and mop up with a cloth. Wash contaminated area with plenty of water.
6.4	Reference to other sections	See Section 8 for personal protective equipment. See Section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1	Precautions for safe handling	
	Usage precautions	Handle in accordance with good hygiene and safety practice. Avoid contact with skin & eyes. Wear suitable protective clothing as specified in section 8.
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	8B
7.3	Specific end use(s)	
	Usage description	Marking solution.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTIONS

Safety Data Sheet

According to Regulation (EU) 2015/830



8.1	Control Parameters	
	Occupational exposure limits	<p>Workplace Exposure Limits (WEL) for Nitric acid (HSE EH40): LTEL (8 hour TWA): - ppm - mg/m³ STEL (15 min): 1 - ppm 2.6 - mg/m³</p> <p>Workplace Exposure Limits (WEL) for Ammonium chloride, fume (HSE EH40): LTEL (8 hour TWA): - ppm 10 - mg/m³ STEL (15 min): - ppm 20 - mg/m³</p>
8.2	Exposure controls	
	Appropriate engineering controls	Ensure adequate ventilation of working area. Provide local exhaust ventilation if necessary.
	Individual protection measures	<p>Observe normal standards for handling chemicals. Avoid eye and skin contact. Wash thoroughly after handling (shower if necessary). 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.</p>
		Not required
		Lightweight chemical resistant gloves for normal use. PVC gloves for dealing with large leaks or spillages.
		Not required for normal use. Protective overalls for dealing with large leaks or spillages.
		Not required.
		Safety glasses for normal use. Goggles or full-face visors if dealing with large leaks or spillages.

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
	pH	Not available
	Melting point	Not available
	Initial boiling point and range	100°C approx.

Safety Data Sheet

According to Regulation (EU) 2015/830



	Flash point	Not available
	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	Not combustible
	Decomposition temperature	Not available
	Viscosity	Not available
	Oxidising properties	Not available

SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity	Stable under normal use and storage conditions.
10.2	Chemical stability	Will react with alkalis.
10.3	Possibility of hazardous reactions	Will react with alkalis.
10.4	Conditions to avoid	None known
10.5	Incompatible materials	Alkalis
10.6	Hazardous decomposition product(s)	May generate toxic oxides of nitrogen if involved in a fire.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects	
	Toxicological effects	Product is low toxicity.
	Acute toxicity	LC ₅₀ rat (inhalation): 130 mg/m ³ /4h - data for Nitric acid RTECS QU5775000
	Skin corrosion/irritation	Causes skin irritation.
	Serious eye damage/irritation	Causes serious eye damage.
	Respiratory sensitisation	Not sensitising.
	Inhalation	No significant hazard.
	Ingestion	No significant hazard.
	Skin contact	Causes skin irritation.
	Eye contact	Causes serious eye damage.

SECTION 12: ECOLOGICAL INFORMATION

Safety Data Sheet

According to Regulation (EU) 2015/830



12.1	Ecotoxicity	LC ₅₀ fish: 72 mg/1/96h - data for Nitric acid
12.2	Toxicity	Low toxicity.
12.3	Persistence and degradability	No data available
12.4	Mobility in soil	No data available
12.5	Results of PBT and vPvB assessment	No data available
12.6	Other adverse effects	This product is unlikely to cause significant damage to the environment.

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, product and contaminated packaging must be disposed of as Hazardous Waste.

SECTION 14: TRANSPORT INFORMATION

14.1	UN Number	1760
14.2	UN proper shipping name	Corrosive liquid, N.O.S (nitric acid)
14.3	Transport hazard classes	8
14.4	Packing group	III
14.5	Environmental hazards	None
14.6	Special Precautions for user	None
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

Safety Data Sheet

According to Regulation (EU) 2015/830



16.1	General Information	RTECS; HSE EH40; Suppliers' safety data sheets. ECHA Classification & Labelling Inventory
16.2	Hazard statements in full	H272: May intensify fire; oxidiser. H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage. H319: Causes serious eye irritation. EUH071: Corrosive to the respiratory tract.

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 except 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.