

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

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

1.1 Product identifier

Product Name	AL. 1
CAS No.:	Not applicable.
EC No.:	Not applicable.
REACH Registration No.:	Not known.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s):	For the electrolytic chemical etching of metals
Uses Advised Against:	Not known.

1.3 Details of the supplier of the safety data sheet

Manufacturer:	Pryor Marking Technology
Company Identification:	Pryor Marking Technology Ltd.
Address of Manufacturer:	Global HQ: Egerton Street Sheffield UK
Postal code:	S1 4JX
Telephone:	+44 (0) 1142766044
Fax:	+44 (0) 1142766890
E-mail:	info@pryormarking.com
Office hours:	08:00-17:30

1.4 Emergency telephone number

0114 276 6044 Monday to Friday 08:00-17:30 (15:30 Friday) GMT

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No. 1272/2008 (CLP)

Aquatic Chronic 2; H411

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product Name
Hazard Pictogram(s)

AL. 1



GHS09

Signal Word(s)

None.

Hazard Statement(s)

H411: Toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

P273: Avoid release to the environment.
P391: Collect spillage.
P501: Dispose of contents in accordance with local, state or national legislation.

2.3 Other hazards

None known.

2.4 Additional Information

For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
copper sulfate	7758-98-7	231-847-6	5-10	Acute Tox. 4 H302 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	GHS07 GHS09
ammonium chloride	12125-02-9	235-186-4	1-5	Acute Tox. 4 H302 Eye Irrit. 2 H319	GHS07
hydrochloric acid 28%	7647-01-0	231-595-7	0.1-1	Skin Corr. 1B H314 STOT SE 3 H335	GHS05 GHS07
sodium etasulfate	126-92-1	204-812-8	<0.1	Skin Irrit. 2 H315 Eye Dam. 1 H318	GHS07 GHS05

For full text of H Statements see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Remove to fresh air. Get medical attention if any discomfort continues.

Skin Contact: Flush with water. Seek medical attention if irritation persists.

Eye Contact: Immediately flush with water. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.

Ingestion: Do not induce vomiting. Seek medical attention if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

None anticipated. Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media:

As appropriate for surrounding fire.

Unsuitable extinguishing media:

None.

5.2 Special hazards arising from the substance or mixture

Heating may cause decomposition.

5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Dike fire control water for later disposal.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Wear suitable gloves if prolonged skin contact is likely.

6.2 Environmental precautions

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Adsorb spillages onto sand, earth or any suitable adsorbent material. Earth may be shovelled to contain spillage and to avoid contamination of sewers and watercourses.

6.4 Reference to other sections:

See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Prevent material from entering surface waters, drains and soil.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature:

Ambient.

Storage life: Stable under normal conditions.
Incompatible materials: None known.

7.3 Specific end use(s):

For the electrolytic chemical etching of metals.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Copper and compounds: dust and mists (as Cu)	7758-98-7		1		2	
Ammonium chloride, fume	12125-02-9		10		20	
Hydrogen chloride (gas and aerosol mists)	7647-01-0	1	2	5	8	
Hydrogen chloride	7647-01-0	5	8	10	15	IOELV

Remark Footnote
IOELV IOELV: Indicative Occupational Exposure Limit Value

8.2 Exposure controls

8.2.1. Appropriate engineering controls:

Ensure adequate ventilation.

8.2.2. Personal protection equipment



Eye Protection:

Wear safety glasses with side protection (EN166) if contact with the eyes is likely



Skin protection:

Wear safety glasses with side protection (EN166) if contact with the eyes is likely



Respiratory protection:

Normally no personal respiratory protection is necessary.

Thermal hazards:

None known.

8.2.3. Environmental Exposure Controls:

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Liquid.
	Colour : Not known.
Odour:	Not known.
Odour threshold:	Not known.
pH:	Not known.
Melting point/freezing point:	Not known.
Initial boiling point and boiling range:	Not known.
Flash Point:	Not known.
Evaporation rate:	Not known.
Flammability (solid, gas):	Not known.
Upper/lower flammability or explosive limits:	Not known.
Vapour pressure:	Not known.
Vapour density	Not known.
Density (g/ml):	Not known.
Relative density:	Not known.
Solubility(ies):	Solubility (Water) : Soluble Solubility (Other) : Not known.
Partition coefficient: n-octanol/water:	Not known.
Auto-ignition temperature:	Not known.
Decomposition Temperature (°C):	Not known.
Viscosity:	Not known.
Explosive properties:	Not known.
Oxidising properties:	Not known.

9.3 Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

None anticipated.

10.2 Chemical Stability:

Stable under normal conditions.

10.3 Possibility of hazardous reactions:

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid:

None anticipated.

10.5 Incompatible materials:

Not known.

10.6 Hazardous decomposition products:

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion:	Not classified. Calculated acute toxicity estimate (ATE)- 6000mg/kg bw
Acute toxicity - Skin Contact:	Not classified.
Acute toxicity - Inhalation:	Not classified.
Skin corrosion/irritation:	Not classified.
Serious eye damage/irritation:	Not classified.
Skin sensitization data:	Not classified.
Respiratory sensitization data:	Not classified.
Germ cell mutagenicity:	Not classified.
Carcinogenicity:	Not classified.
Reproductive toxicity:	Not classified.
Lactation:	Not classified.
STOT - single exposure:	Not classified.
STOT - repeated exposure:	Not classified.
Aspiration hazard:	Not classified.

11.2 Other information:

Not known.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

Toxicity - Aquatic invertebrates:	Not known.
Toxicity - Fish:	Not known.
Toxicity - Algae:	Not known.
Toxicity - Sediment Compartment:	Not classified.
Toxicity - Terrestrial Compartment:	Not classified.

12.2. Persistence and Degradation:

Not known.
Not known.

12.3. Bioaccumulative potential:

Not known.

12.4. Mobility in soil:

12.5. Results of PBT and vPvB assessment:

Not known.

12.6 Other adverse effects:

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Dispose of contents in accordance with local, state or national legislation. Dispose of this material and its container to hazardous or special waste collection point.

13.2 Additional Information:

Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

ADR

14.1	UN Number	3082
14.2	UN Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Copper sulfate)
14.3	Transport hazard class(es)	9
14.4	Packing group	III
14.5	Environmental hazards	Yes
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

ADN

14.1	UN Number	3082
14.2	UN Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Copper sulfate)
14.3	Transport hazard class(es)	9
14.4	Packing group	III
14.5	Environmental hazards	Yes
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

RID

14.1	UN Number	3082
14.2	UN Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Copper sulfate)
14.3	Transport hazard class(es)	9
14.4	Packing group	III
14.5	Environmental hazards	Yes
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

IATA/ICAO

14.1	UN Number	3082
14.2	UN Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Copper sulfate)
14.3	Transport hazard class(es)	9
14.4	Packing group	III
14.5	Environmental hazards	Yes
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.

IMDG

14.1	UN Number	3082
14.2	UN Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Copper sulfate)
14.3	Transport hazard class(es)	9

14.4	Packing group	III
14.5	Environmental hazards	Yes
14.6	Special precautions for the user	Read SDS and supplier instructions on correct use of the product.
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	The product is 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

Candidate List of Substances of Very High Concern for Authorisation	Not listed
REACH: ANNEX XIV list of substances subject to authorisation	Not listed
REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not listed
Community Rolling Action Plan (CoRAP)	Not listed
Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants	Not listed
Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer	Not listed
Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals	Not listed
National regulations - Other	Not known.

15.2 Chemical Safety Assessment: A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

Hazard Pictogram(s):



GHS09

Hazard Statement(s):

H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H315: Causes skin irritation
H319: Causes serious eye irritation
H335: May cause respiratory irritation
H400: Very toxic to aquatic life
H410: Very toxic to aquatic life with long lasting effects
H411: Toxic to aquatic life with long lasting effects.

Precautionary Statement(s):

P273: Avoid release to the environment.
P391: Collect spillage.
P501: Dispose of contents in accordance with local, state or

national legislation.

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 product for their own particular purpose. Pryor Marking Technology 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. Pryor Marking Technology. 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.

Version:	1.0
Issue date:	23/03/16
Previous version:	-
Issue date of previous version:	-
Sections changed from previous version:	-