

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: PSC. 4  
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: None

### 1.3 Details of the supplier of the safety data sheet

Manufacturer: Pryor Marking Technology  
Company Identification: Pryor Marking Technology  
Address of Manufacturer: Global HQ: Egerton Street,  
Sheffield,  
UK  
Postal code: S1 4JX  
Telephone: +44 (0) 114 276044  
Fax: +44 (0) 114 2766890  
E-mail: info@pryormarking.com  
Office hours: 08:30-17:00

**1.4 Emergency telephone number** +44 (0)1142766044 Monday to Thursday, 08:30 - 17:30 GM  
(08:30 - 15:30 Friday), English

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### 2.1.1 Classification according to Regulation (EC) No1272/2008 (CLP):

Not classified

### 2.2 Label elements:

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

Product Name: PSC. 4  
Signal Word(s): None.  
Hazard Statement(s): None.  
Precautionary Statement(s): None.

**2.3 Other hazards:** None known.

**2.4 Additional Information:** None.

## 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)
ammonium chloride	12125-02-9	235-186-4	1-10	Acute Tox. 4 H302 Eye Irrit. 2 H319	GHS07
Hydrochloric acid 28%	7647-01-0	231-595-7	1-5	Skin Corr. 1B H314 STOT SE 3 H335	GHS05 GHS07

For full text of H Statements see section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

Following Inhalation:

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

Following Skin Contact:

Flush with water. Seek medical attention if irritation persists.

Following Eye Contact:

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

Following Ingestion:

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

### 4.2 Most important symptoms and effects, both acute and delayed:

May cause skin or eye irritation.

### 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:

None anticipated. Heating may cause decomposition

### 5.3 Advice for firefighters:

Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

Contain 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:

Do not release large quantities into the surface water or into drains.

### 6.3 Methods and material for containment and cleaning up:

Adsorb spillages onto sand, earth or any suitable adsorbent material.

### 6.4 Reference to other sections:

See Also Section 8, 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

Prevent large quantities of 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

Source UK EH40/2011 Workplace exposure limits

SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Hydrogen chloride (gas and aerosol mists)	7647-01-0	1	2	5	8	
Hydrogen chloride	7647-01-0	5	8	10	15	IOELV
Ammonium chloride, fume	12125-02-9		10		20	

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:

Gloves should be worn where repeated or prolonged contact can occur.



Respiratory protection:

Normally no personal respiratory protection is necessary.

Thermal hazards:

None known.

### 8.2.3. Environmental Exposure Controls:

Do not release large quantities of the product into the surface water or into drains.

## 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.

**9.2 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:

Oxides of nitrogen.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity - Ingestion:	Not classified. Calculated acute toxicity estimate (ATE) > 5000 mg/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

Toxicity - Aquatic invertebrates:	Low toxicity to invertebrates.
Toxicity - Fish:	Low toxicity to fish.
Toxicity - Algae:	Low toxicity to algae.
Toxicity - Sediment Compartment:	Not classified.
Toxicity - Terrestrial Compartment:	Not classified.

**12.2. Persistence and Degradation:** Not known.

**12.3. Bioaccumulative potential:** Not known.

**12.4. Mobility in soil:** Not known.

**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.

### 13.2 Additional Information

None

## SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous for transport.

## 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

Full list of Hazard Statement(s): H302: Harmful if swallowed  
H314: Causes severe skin burns and eye damage  
H319: Causes serious eye irritation  
H335: May cause respiratory irritation.

Precautionary Statement(s): None.

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