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<b>Electrode Conditioning Solution B</b>		

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**
**1.1 Product Identifiers**

Product name : Electrode Conditioning Solution B  
Product number : R-300-025ECS-02  
Substance name : 5M Hydrochloric acid  
REACH reg no. : This product is exempt from registration, insufficient annual volume.

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

Identified uses : Reagent for analysis and electrode preparation.

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

Company : Modern Water Monitoring Limited  
: Units 15-17 Cambridge Science Park  
: Cambridge, CB4 0FQ  
: UK  
Email : [info@modernwater.co.uk](mailto:info@modernwater.co.uk)

**1.4 Emergency telephone number**

+44 (0) 1483 696030

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**SECTION 2: Hazards identification**
**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

Skin irritation (Category 2)

Eye irritation (Category 2)

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

**2.2 Label elements**


Hazard pictogram



Signal Word: Warning

Hazard statements:

H319	Causes serious eye irritation
H315	Causes skin irritation
H335	May cause respiratory irritation.

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## Precautionary statements:

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of water/...
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309 + P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

**2.3 Other hazards** : Not known

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**SECTION 3: Composition/information on ingredients**

**3.1 Substance** : Not relevant, see 3.2 Mixtures

**3.2 Mixtures**

Hazardous ingredients classification according to Regulation (EC) No. 1272/2008 CLP

Substance name	Concentration	CAS No	EC No
Hydrochloric acid	3%	7647-01-0	231-595-7
H314 – causes severe skin burns and eye damage			

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**SECTION 4: First Aid measures**
**4.1 Description of first aid measure**

**General advice:** When in doubt or if symptoms observed, get medical advice. Show this safety data sheet to the doctor in attendance.

**After Inhalation:** Remove casualty to fresh air and keep warm. If breathing difficult or respiratory tract irritation get medical assistance. If not breathing, give artificial respiration and get urgent medical assistance.

**In case of skin contact:** Remove contaminated clothing. Wash off with soap and plenty of water. Get medical assistance.

**After eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes. Remove contact lenses. Get urgent medical assistance.

**In case of ingestion:** If accidentally swallowed rinse mouth with plenty of water (only if person is conscious). Do not induce vomiting. Get medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

Can cause skin and eye damage

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### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

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## SECTION 5: Fire-fighting measures.

### 5.1 Extinguishing media:

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Unsuitable extinguishing media

No restriction

### 5.2 Special hazards arising from the substance or mixture

Possible generation of hydrogen Chloride (HCl) fumes

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus.

### 5.4 Additional information

None

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## SECTION 6: Accidental release measures.

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment (see section 8). Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

### 6.2 Environmental precautions

Do not let large quantities to enter drains or surface water. Spills are to be contained. Discharge into environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in a suitable closed container for disposal. Dispose correctly, referring to local regulations.

### 6.4 References to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage.

### 7.1 Precautions for safe handling

Avoid exposure to skin and eyes.

### 7.2 Conditions for safe storage, including and incompatibilities

Store in a cool place, below 25°C. Keep contained upright and the cap tightly closed.

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### 7.3 Specific end use(s)

Apart from uses specified in section 1.2, no other specific uses.

## SECTION 8: Exposure controls/personal protection.

### 8.1 Control parameters

Components with workplace control parameters

Component	CAS-No	Value type	Limit value	
Hydrochloric Acid	7647-01-0	STEL	5ppm (8mg/m <sup>3</sup> )	EU and UK EH40 WEL
		Long Term, TWA	1ppm (2mg/m <sup>3</sup> )	EU and UK EH40 WEL

### 8.2 Exposure controls:

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at end of workday.

#### Personal protective equipment

Wear suitable protective clothing

##### Eye/face protection

Safety glasses with side-shields conforming to EN166 or equivalent standard.

##### Skin protection

Handle with gloves (PVC or nitrile)

## SECTION 9: Physical and chemical properties.

### 9.1 Information on basic physical and chemical properties

Appearance	Clear colourless Liquid
Odour	none
Odour threshold	not applicable
pH	1 (approx.)
Melting point/range (°C)	not applicable
Boiling point (°C):	85 (approx.)
Flash point	not flammable
Evaporation rate	no data available
Flammability (solid/gas)	not applicable
Upper/lower flammability rates	not flammable
Vapour pressure (mmHg at 20°C)	146 (approx.)
Vapour density	no data available
Relative density	1.1 (approx.)
Water solubility	completely miscible
Partition coefficient: n-octane/water	no data available
Auto ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	not applicable

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Oxidising properties no data available

### 9.2 Other data

Corrosion May be corrosive to metals.

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## SECTION 10: Stability and reactivity.

### 10.1 Reactivity

Mildly reactive to metals and bases.

### 10.2 Chemical stability

This product is chemically stable under standard ambient conditions (room temperature).

### 10.3 Possibility of hazardous reactions

No data available.

### 10.4 Conditions to avoid

No data available.

### 10.5 Incompatible materials

Metals, bases.

### 10.6 Hazardous decomposition products

Hydrogen Chloride (HCl)

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## SECTION 11: Toxicological information.

### 11.1 Information on toxicological effects

#### Acute toxicity

No data available

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes eye irritation

#### Respiration or skin sensitisation

Not sensitising

#### Germ cell mutagenicity

No indication of human germ cell mutagenicity exist

#### Carcinogenicity

No indication of human carcinogenicity

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### **Reproductive toxicity**

No indication of human reproductive toxicity exist

### **Specific target organ exposure – single exposure**

No data available

### **Specific target organ exposure – repeated exposure**

No data available

### **Aspiration hazard**

Not applicable

### **Other adverse effects**

No data available

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## **SECTION 12: Ecological information.**

### **12.1 Toxicity**

No data available

### **12.2 Persistence and degradability**

No data available

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

### **12.5 Results of PBT and vPvB assessment**

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **12.6 Other adverse effects**

No data available

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## **SECTION 13: Disposal considerations.**

### **13.1 Waste treatment methods:**

#### **Product**

Dispose in accordance to local regulations, consult the local waste disposal expert.

#### **Contaminated packaging**

Dispose in accordance to local regulations, the same way as the product itself.

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**SECTION 14: Transport information.**

Non – Hazardous for air, road and sea transport.

**Land transport (ADR/RID)**

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not applicable
14.3	Transport hazard	Not applicable
14.4	Packaging group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precaution for user	Not applicable

**Air transport (IATA)**

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not applicable
14.3	Transport hazard	Not applicable
14.4	Packaging group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precaution for user	Not applicable

**SEA transport (IMDG)**

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not applicable
14.3	Transport hazard	Not applicable
14.4	Packaging group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precaution for user	Not applicable

**SECTION 15: Regulatory information.**


**15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture**

None applicable

**15.2 Chemical Safety Assessment**

No data available

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**SECTION 6: Other information.**

**Abbreviations and acronyms**

ADR – European Agreement Concerning the International Carriage of Dangerous Goods by Road

IATA – International Air Transportation Association

IMDG – international Maritime Code of Dangerous Goods

STEL – Short term exposure limit

TWA – Time Weighted Average

WEL – Workplace Exposure Limit

**Symbol, R and S phrases for this mixture**

None

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