

## MATERIAL SAFETY DATA SHEET

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### 1. Identification of the substance or preparation and the company/undertaking

Product Name: Electrode Conditioning Solution B

Product number: R-300-025ECS-02

company: Lab21 Environmental Ltd  
184 Science Park  
Cambridge  
CB4 0GA  
UK

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### 2. Composition/information on ingredients

Product name: Electrode Conditioning Solution B

CAS number: none                      EC number: none

<u>Hazardous Ingredients</u>	<u>Proportion</u>	<u>CAS-No</u>	<u>EC-No</u>
Hydrochloric acid Symbol: C	16.0%	7647-01-0	231-595-7

R-phrases: R34,37

Causes burns. Irritating to respiratory system.

### 3. Hazards identification

Irritating to eyes, respiratory system and skin.

### 4. First aid measures

If swallowed: Wash out mouth thoroughly with water and give plenty of water to drink. Do not induce vomiting. Seek medical advice.

After eye contact: Irrigate thoroughly with water for at least 15 minutes. Obtain medical attention.

After skin contact: Remove contaminated clothing. Wash skin thoroughly with water and mild soap. Seek medical advice if irritation persists. Launder clothing before reuse.

If inhaled: Remove individual from contaminated air, rest and keep warm. If breathing is difficult give oxygen and seek medical assistance.

### 5. Fire-fighting measures

Not combustible. May evolve toxic fumes in fire. (Hydrogen chloride and other chloride compounds).

Fire fighters should wear self contained breathing apparatus if exposure to fumes is likely. Use extinguisher to suit environment.

## 6. Accidental release measures

Wear protective clothing when dealing with spills. Absorb spills with sand or vermiculite. Neutralise with sodium bicarbonate. Dispose of in accordance with local regulations.

## 7. Handling and storage

Handling: Change contaminated clothing. Wash hands after working with substance.

Storage: Store sealed in original container in a cool well ventilated situation away from foods and other chemicals. Do not store in direct sunlight. Observe good hygiene and housekeeping practices. Solution is acidic and may corrode metals.

## 8. Exposure controls and personal protection

UK Exposure Limits:

Hydrogen chloride: 8 mg/m<sup>3</sup> Short term (5 ppm) & 2 mg/m<sup>3</sup> long-term (1 ppm) (IVL)

Engineering Controls:

Always use this product with good general ventilation (10-15 changes of air in the room per hour) or preferably in a chemical fume hood. Maintain atmospheric concentrations as low as possible.

Personal Protection:

Avoid all skin and eye contact. Wear protective clothing including safety glasses and rubber or PVC gloves. Never pipette by mouth.

## 9. Physical and chemical properties

Appearance:	Clear Liquid
Boiling point (°C):	100 (approx)
Specific Gravity (g/mL):	1.1
Flash Point (°C):	Not flammable
Flammability limits (%):	Not flammable
Solubility in water (g/L):	Completely miscible

Other Properties: pH approx 1. Acidic solution.

## 10. Stability and reactivity

Stable

Substances to be avoided: amines, carbides, hydrides, fluorine, alkali metals, bases, salts of oxyhalogenic acids, aldehydes, sulphides

## 11. Toxicological information

After ingestion: May cause irritation of mucous membranes in mouth, pharynx, oesophagus and gastrointestinal tract.

After skin contact: May cause irritation.

After eye contact: May cause irritation.

After inhalation of vapours: May cause irritation to the respiratory tract.

## 12. Ecological information

Harmful effect due to pH shift.

Harmful effect on aquatic organisms. Does not cause biological oxygen deficit.

### 13. Disposal considerations

Contact a licensed professional waste disposal service to dispose of this material. Observe local and national environmental regulations.

### 14. Transport information

This product contains less than 25% of the following ingredient.

HYDROCHLORIC ACID, C (corrosive)

UN no: 1789, Class 8

Non – hazardous for air, road or sea transport.

### 15. Regulatory information

Labelling according to EC directives.

Symbol(s): Xi Irritant

R phrases: R36/37/38

Irritating to eyes, respiratory system and skin.

S phrases: 26, 45

In case of contact with eyes, wash immediately with plenty of water and seek medical advice.

In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

Within the UK, the use of this material must be assessed under the Control of Substances Hazardous to Health (COSHH) regulations.

### 16. Other information

None

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