



**COSHH Data Sheet: Bridge Biotechnology  
(91/155/EWG)**

**Section 1. Identification of Company / Business**

Business: - Production of Disinfection solutions  
Trade Name: - ESOL  
Business Name: - Bridge Biotechnology Limited  
Address: - 4, Castle Court, Carnegie Campus, Dunfermline,  
Fife, KY11 8PB, Scotland

**Section 2. Information Regarding Constituents**

**Hazardous Substances present on their own: -**

Electrochemical solution of sodium chloride in water. ESOL (+) may contain active chlorine compounds in the range of 0 to 0.1 mol/l. Cathode Output (-) may contain sodium hydroxide in the range of 0 to 0.7 mol/l.

**Other substances representing a hazard**

The solutions contain no compounds applicable to the rules for toxic compounds (67/548/EWG).

**Substances present in concentration below minimum danger threshold: -**

No known substance in this category present.

**Section 3. Identification of Hazards**

The solutions are classified as non-dangerous according to (88/279/EWG)

**Main Hazard: -** The solutions only in their strongest undiluted form (ORP +1000mV or < -600mV may cause irritation to the eyes, and throat. Where the solutions are stored in containers, inhalation of fumes should be avoided.

**Health Effects Inhalation: -** Adequate ventilation is required during the manufacture of these solutions, as a build up of fumes may cause nausea and dizziness.

#### **Section 4. First Aid.**

As a general rule, in case of doubt, or if symptoms persist, always call a Doctor.

##### **In the event of exposure by Inhalation: -**

Remove person immediately into fresh air. Should dizziness and nausea persist, call a Doctor.

##### **In the event of splashes or contact with Eyes: -**

Rinse eyes, remove any contact lenses and continue flushing with fresh water.

##### **In the event of splashes or contact with Skin: -**

There is no hazard if contact occurs when the solutions are diluted. If contact occurs when the solutions are in concentration, wash off with fresh water.

##### **In the event of Swallowing: -**

There is no hazard if swallowed in dilution. If taken in concentration, drink fresh water to dilute as quickly as possible.

#### **Section 5. Fire Fighting Measures.**

There are no special requirements for these solutions as they are non-flammable.

#### **Section 6. Action to be taken in the event of spillage**

##### **Safety Precautions: -**

Avoid spilling onto electrical equipment. The solutions are good conductors and present an electrocution hazard if spilled onto high voltage.

##### **Environmental Safety Precautions: -**

These solutions are biodegradable and have a limited active life. There are no potential risks to the environment.

##### **Cleaning Methods: -**

Wipe up with absorbent paper towels, there are no special disposal requirements. Solutions will evaporate harmlessly if left.

## **Section 7. Handling and Storage.**

### **Handling: -**

In the area where the solutions are being produced, there must be good exhaust ventilation to atmosphere. For those with sensitive skin, it may be advisable to wear gloves.

### **Fire Prevention: -**

There are no special requirements, as these solutions are non-flammable.

### **Storage: -**

Store in a cool dry ventilated area, in sealed polythene or PET containers and ensure the solutions are correctly labelled. As the ESOL (+) and Cathode Output (-) solutions will degrade back into a sodium chloride and water solution, when exposed to the atmosphere; they should be used within ten days of manufacture.

## **Section 8. Exposure Control – Personal Safety**

### **Engineering Control Procedures: -**

Where solutions are being manufactured on site, engineering solutions should be implemented to prevent the build up of fumes where an area has inadequate ambient ventilation.

Mechanical fume extraction may be required in this situation. Apply documented process and safety controls and personnel protection if required, such as gloves and masks.

### **Safety Breathing Apparatus: -**

No special breathing apparatus is required if the ventilation called for as above is implemented. If ventilation is not functioning the production of solutions should cease until it is working properly.

### **Hand Protection: -**

Only the strongest solutions may cause skin irritation and protective gloves should be on hand if required.

### **Eye and Facial Protection: -**

Safety glasses may be worn to reduce the risk of eye contact. Solutions will dissipate rapidly upon dilution.

### **Body Protection: -**

Normal industrial clothing.

## **Section 9. Physical Properties**

Physical State: -	Liquid at ambient temperatures.
Appearance: -	Clear liquid, as water.
Odour: -	ESOL (+) has a Chlorine like odour at full strength. Cathode Output (-) has no odour.
Solubility: -	Completely soluble.
pH Values: -	ESOL (+) 2.0 - 6.5 Cathode Output (-) 10.0 - 13.0
mV Values: -	ESOL (+) > + 1000 Cathode Output (-) > - 800
Melting Point: -	0 <sup>0</sup> C
Boiling Point: -	100 <sup>0</sup> C
Flash Point: -	Not applicable
Inflammability: -	Not applicable
Density: -	1,000 kg/m <sup>3</sup>
Vapour Pressure: -	2,330 Pa @ 20 <sup>0</sup> C

## **Section 10. Stability and Reactivity**

### **Stability: -**

Stable under all normal conditions.

### **Materials to avoid: -**

ESOL in its undiluted form will eventually oxidise untreated metals including stainless steel below a 316 quality.  
ESOL can speed up the corrosion of tin, zinc, iron and aluminium.

### **Hazardous Decomposition Information: -**

Not applicable

## **Section 11. Toxicological Information**

### **In the event of exposure by inhalation: -**

Very low order of toxicity however may cause mild respiratory irritation.

### **In the event of swallowing: -**

Very low order of toxicity.

### **In the event of splashes or contact with the skin: -**

Very low order

### **In the event of splashes or contact with the eyes: -**

Very low order of toxicity however the possibilities of allergic sensitisation should be considered.

### **Chronic toxicity / carcinogens: -**

None

## **Section 12. Ecological Information**

### **Eco-Toxicity: -**

None

### **Degradability: -**

Fully bio-degradable

### **Bioaccumulation: -**

None

### **Mobility: -**

None

## **Section 13. Disposal Procedures**

There are no special disposal procedures

## **Section 14. Transport Procedures**

Not classified as hazardous for transport.

## **Section 15. Regulatory Information**

Not listed

## **Section 16. Other Information**

The information in this document meets the European requirements for safety and health measurements. (91/155/EWG).

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