

## Material Safety Data Sheet

### 1. Identification

*Identification of the product*

Catalogue No: **61001**  
Product name: **Cou-Lo® Formula "A" Coulometric Anode Solution**  
Synonyms: Cou-Lo® Formula A Coulometric Anode Solution;

*Manufacturer/supplier identification*

Company: G.R. Scientific Ltd  
P.O. Box 242, Ampthill, Bedfordshire,  
United Kingdom, MK45 5AQ

Emergency telephone no.: +44 (0) 1525 404747 Fax +44 (0) 1525 404848

### 2. Composition/information on ingredients

*Chemical classification*

Components

Methyl Alcohol 15-20%  
CAS number: 67-56-1 EC-No.: 203-713-7  
Symbol: F T  
R-phrases: R11-23/24/25-39/23/24/25

Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Chloroform 30-35%  
CAS number: 67-66-3 EC-No.: 200-663-8  
Symbol: Xn  
R-phrases: R22-38-40-48/20/22

Harmful if swallowed. Irritating to skin. Possible risk of irreversible effects. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

Non-toxic proprietary iodide 10-20%  
CAS number: N/A EC-No.: N/A

Sulphur Dioxide 2-10%  
CAS number: 7446-09-5 EC-No.: 231-195-2  
Symbol: T  
R-phrases: R23-34

Toxic by inhalation. Causes burns.

Xylenes 25-35%  
CAS number: 1330-20-7 EC-No.: 215-535-7  
Symbol: Xn  
R-phrases: R10-20/21-38

Flammable. Harmful by inhalation and in contact with skin. Irritating to skin.

### 3. Hazards identification

Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

### 4. First aid measures

- Eye contact: Irrigate thoroughly with water for at least 15 minutes. OBTAIN MEDICAL ATTENTION.
- Inhalation: Remove from exposure, rest and keep warm. In severe cases obtain medical attention.
- Skin contact: Wash off skin thoroughly with water for at least 15 minutes. Remove contaminated clothing and wash before re-use. In severe cases, OBTAIN MEDICAL ATTENTION.
- Ingestion: Wash out mouth thoroughly with water and give plenty of water to drink and induce vomiting if conscious. OBTAIN MEDICAL ATTENTION.

### 5. Fire-fighting measures

*Special risks:*

Flammable. Will release toxic compounds when burning.

*Suitable extinguishing media:*

Water spray, dry powder, foam or carbon dioxide

Do not stay in dangerous zone without respiratory protective equipment. Prevent fire fighting water entering watercourses or ground-water.

### 6. Accidental release measures

Shut off all sources of ignition. Inform others to keep at a safe distance. Wear appropriate protective clothing.

If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb on an inert absorbent, transfer to container and arrange removal by disposal company. Ventilate area to dispel residual vapour.

For large spillages liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages.

### 7. Handling and storage

*Handling:*

Take precautions against static discharge. All electrical equipment must be flame proofed. Wear appropriate protective clothing. Work under fume extractor. Do not inhale substance. Do not empty into drains.

*Storage:*

- Store at room temperature (15 to 25°C recommended).
- Keep well closed and protected from direct sunlight and moisture.
- Store small containers in suitable flammable liquid storage cabinets when not in use.
- Larger drums (200litres) must be kept in purpose-built stores.

### 8. Exposure controls/personal protection

As appropriate to the situation and the quantity handled. Engineering methods to control or prevent exposure are preferred. Methods could include process enclosure or mechanical ventilation.

- Respirator: Self-contained breathing apparatus
- Ventilation: Fume cupboard, flameproof
- Gloves: Butyl rubber, Viton™, PE
- Eye Protection: Goggles or face-shield
- Other Precautions: Plastic apron, sleeves, boots - if handling large quantities

See section 15 for UK exposure limits.

## 9. Physical and chemical properties

|                           |                             |
|---------------------------|-----------------------------|
| Physical State:           | Liquid                      |
| Appearance:               | Clear to light brown,       |
| Odour:                    | Characteristic odour        |
| Vapour Pressure:          | 100mm, @ 10°C               |
| Boiling Point:            | 61°C                        |
| Flash Point:              | 11°C                        |
| Solubility in water:      | Miscible in all proportions |
| Specific Gravity/Density: | 1.2                         |
| Vapour density (air=1):   | 4.0                         |

## 10. Stability and reactivity

Stable.

Flammable

To be avoided : Oxidisers, ignition sources and heat.

The possibility of reaction with other substances cannot be excluded.

## 11. Toxicological information

- After ingestion: toxic.
- After inhalation of vapours: Irritation symptoms in the respiratory tract.
- After contact with substance: Irritation of: eyes, mucous membranes.
- After the absorption of large quantities: nausea, vomiting, headache, inebriation, impaired vision, blindness (Irreversible damage of the optical nerve.).

Systemic effect: lethargy, gastrointestinal upset, anemia, damage to CNS, kidney, liver and blindness..

Chloroform has been found to cause cancer in laboratory animals. (Damage to: liver kidneys) (LOAEL 124 mg/m<sup>3</sup>/180d)

Carcinogen, Category 3

Evidence of reproductive effects.

## 12. Ecological information

Daphnia toxicity: EC50 (Daphnia magna): >10,000 mg.kg/24h

Fish toxicity: EC50 (Salmo gairdneri): 13,000 mg/kg/96h

A harmful effect on aquatic organisms cannot be excluded in the event of improper handling or disposal.

## 13. Disposal considerations

Chemical residues are generally classified as special waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before returning for recycling.

When recovery and recycling is not possible, incineration in a high temperature incinerator is the recommended method of disposal.

## 14. Transport information

UN-No.: 1993                      IMDG class: 3  
IMO: 3/1993                      Packaging group: II  
IATA: 1993                      Packaging group: II  
Correct technical name: **FLAMMABLE LIQUID, NOS,  
(CONTAINS METHYL ALCOHOL AND  
XYLENE)**



## 15. Regulatory information

*Labelling according to EC directives*

Symbol: F T    Highly flammable. Toxic.



R-phrases: R11-23/24/25-39/23/24/25

Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

S-phrases: S7-16-36/37-45

Keep container tightly closed. Keep away from sources of ignition - No smoking. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

EC-No.: 200-659-6

### *Local Regulations*

Regulated in the UK under the Highly Flammable Liquids and Liquefied Petroleum Gases Regulations 1972.

U.K. Transport Category 2

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

## 16. Other information

Date of issue: 10 February 2006

### **Important Statement**

The information above is believed to be accurate and represents the best information currently available from multiple crosschecked sources.

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