



# Material Safety Data Sheet

## 1. Identification

*Identification of the product*

Catalogue No: **61002**  
Product name: **Cou-Io® Formula "C" Coulometric Cathode Solution**  
Synonyms: Cou-Lo® Formula C Coulometric Cathode 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

2-Methoxyethanol >50-90%  
CAS number: 109-86-4 EC-No.: 203-713-7  
Symbol: T

R-phrases: R60-61-10-20/21/22

May impair fertility. May cause harm to the unborn child. Flammable. Harmful by inhalation, in contact with skin and if swallowed.

Non-toxic proprietary amine >10-25%  
CAS number: N/A EC-No.: N/A

Sulphur Dioxide <10%  
CAS number: 7446-09-5 EC-No.: 231-195-2  
Symbol: T  
R-phrases: R23-34  
Toxic by inhalation. Causes burns.

Iodine 10%  
CAS number: 7553-56-2 EC-No.: 231-442-4  
Symbol: Xn N  
R-phrases: R20/21-50  
Harmful by inhalation and in contact with skin. Very toxic to aquatic organisms.

## 3. Hazards identification

- May impair fertility.
- May cause harm to the unborn child.
- Flammable.
- Harmful by inhalation, in contact with skin and if swallowed.

#### **4. First aid measures**

- Eye contact: Irrigate thoroughly with water for at least 15 minutes. If discomfort persists 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. OBTAIN MEDICAL ATTENTION.

#### **5. Fire-fighting measures**

*Special risks:*

Flammable. Will release toxic compounds when burning.

*Suitable extinguishing media:*

Water spray, foam, dry powder or carbon dioxide

#### **6. Accidental release measures**

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

Absorb on an inert absorbent or soda ash, transfer to a suitable container and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent.

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:*

Care should be taken to remove any peroxides present before distilling to low volume.

Under no circumstances eat, drink or smoke while handling this material.

Wash hands and face thoroughly after working with material. Contaminated clothing should be removed and washed before re-use.

*Storage:*

Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight and moisture.

#### **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: Nitrile
- 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:	Light straw coloured
Odour:	Strong sulphur dioxide & iodine odour
Vapour Pressure:	50 mm @ 30°C
Boiling Point:	124°C
Flash Point:	46°C
Solubility in water:	Soluble
Specific Gravity/Density:	0.9
Vapour density (air=1)	2.6
pH:	about 6

## 10. Stability and reactivity

Stable.

Avoid oxidisers, ignition sources, heat.

Incompatible with water.

## 11. Toxicological information

- After inhalation: Toxic.
- Ingestion: Toxic
- After eye contact: May irritate.
- After skin contact: May irritate. harmful. Danger of skin absorption.
- Systemic effect: Causes lethargy, headache, gastrointestinal upset, anemia ,CNS disorders. After the absorption of large quantities: Toxic effect on: liver, kidneys.
- After long-term exposure to the chemical: Toxic effect on: reproductive organs.

The information available to us suggests that the risk of an embryotoxic effect must be considered probable. Pregnant women should not be exposed to the product.

No evidence of carcinogenic properties. Evidence of reproductive effects.

Toxic for Reproduction, Category 2

## 12. Ecological information

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

Do not allow to enter drinking water supplies, waste water, or soil!

## 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.

## 14. Transport information

UN-No.:	1188	IMDG class: 3
IMO:	3/1188	Packaging group: III
IATA:	1188	Packaging group: III
Correct technical name:	<b>ETHYLENE GLYCOL MONOMETHYL ETHER</b>	
ADR/RID:	3,31'(c)	



## 15. Regulatory information

Labelling according to EC directives



Symbol: T Toxic.

R-phrases: R60-61-10-20/21/22

May impair fertility. May cause harm to the unborn child. Flammable. Harmful by inhalation, in contact with skin and if swallowed.

S-phrases: S53-45

Avoid exposure-obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

EC-No.: 203-713-7

Toxic for Reproduction, Category 2

### *Local Regulations*

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

UK Exposure Limits: MEL - 2-Methoxyethanol:

Long term: 16 mg/m<sup>3</sup> (5 ppm) (Sk)

## 16. Other information

Date of issue: 25<sup>th</sup> March 2009

### **Important Statement**

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

However, we make no warranty express or implied, with respect to such information, and we assume no liability resulting from its use.

**Users should make their own investigations to determine the suitability of the information for their particular purposes.**

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