

## MATERIAL SAFETY DATA SHEET

### SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Material Name:** Congo Red.  
**Catalogue Number:** C093, C0931, C0935.  
**Other Names:** Direct Red 28; 1-Naphthalensulfonic acid, 3,3'-(4,4'-biphenylenebis(azo))bis(4- amino-, disodium salt); 3,3'-[[1,1'-Biphenyl]-4,4'-diylbis(azo)]bis[4-amino-1-naphthalenesulfonic acid disodium salt; Congo Red Certified; Congo Red  
**Recommended Use:** Biological Stain.

**Supplier Name:** ProSciTech  
**Street Address:** 1/11 Carlton Street, Kirwan, Qld. 4817 Australia  
**Telephone Number:** (07) 4773 9444 **Fax Number:** (07) 4773 2244  
**Emergency Contact:** (07) 4773 9444 8:30am – 5:00pm, Monday to Friday

### SECTION 2 - HAZARDS IDENTIFICATION

**Hazard Classification:** Hazardous according to criteria of NOHSC.  
**Hazardous and/or Dangerous Nature:** HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.  
**Risk Phrases:** R16 Explosive when mixed with oxidising substances.  
 R36/38 Irritating to eyes and skin.  
 R40 Limited evidence of a carcinogenic effect.  
 R45/63 May cause cancer, possible risk of harm to the unborn child.  
**Safety Phrases:** S2 Keep out of reach of children.  
 S36/37 Wear suitable protective clothing and gloves.  
 S46 If swallowed, seek medical advice immediately and show this container or label.  
 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).

### SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

**SUBSTANCE:** **Chemical Identity:** Congo Red.  
**Common Name(s):**  
**CAS Number(s):** 573-58-0

MIXTURE:	Ingredients	Cas Number(s)	Proportion (%)
	Congo Red	573-58-0	100

### SECTION 4 - FIRST AID MEASURES

**Swallowed:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Eye:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

**Skin:** In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. FOR SERIOUS CONTACT: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

**Inhaled:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**First Aid Facilities:** Eyebath/eyewash & Safety shower.

**Medical Attention & Special Treatment:** Not available.

**ADDITIONAL INFORMATION:** Not available.

## SECTION 5 - FIRE FIGHTING MEASURES

### Suitable Extinguishing Media:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

### Hazards from Combustion Products:

May be combustible at high temperature. These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...), sulfur oxides (SO<sub>2</sub>, SO<sub>3</sub>...). Some metallic oxides. Slightly flammable to flammable in presence of open flames and sparks, of heat, of oxidizing materials. Non-flammable in presence of shocks. Slightly explosive in presence of oxidizing materials. Strong oxidizing agents can cause fire on contact. Avoid contact with oxidizing agents (i.e. perchlorates, peroxide, permanganates, chlorates, nitrates, chlorine, bromine, and fluorine) as a fire or explosion can occur on contact.

### Precautions for Fire Fighters:

Use full protective equipment and NIOSH approved self contained breathing apparatus to suit chemical fires.

**Hazchem Code:** Not available.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### Emergency Procedures:

Not available.

### Containment and clean up:

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.

## SECTION 7 - HANDLING & STORAGE

### Precautions for Safe Handling:

Keep locked up, away from heat and sources of ignition. Empty containers pose a fire risk - evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment (refer to Section 8). If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, metals.

### Conditions for Safe Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C.

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

**National Exposure Standards:** No exposure standard allocated.

**Biological Limit Values:** No biological limit allocated.

### Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Personal Protective Equipment:

Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Splash goggles. Full suit. Dust respirator. Boots. A self contained breathing apparatus should be used to avoid inhalation. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

## SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance:</b>	Powdered Solid. Dark Red/Brownish-red.
<b>Odour:</b>	Odourless.
<b>pH:</b>	1% solution/water: 8.5 – 9.0 (basic).
<b>Vapour pressure (mm of Hg at 25°C):</b>	Not available.
<b>Vapour density:</b>	Not available.
<b>Boiling point/range (°C):</b>	Not available.
<b>Freezing/melting point (°C):</b>	>360°C.
<b>Solubility:</b>	Soluble in cold water. 1g/30ml water. Very slightly soluble in acetone. Insoluble in diethyl ether. Soluble in Ethanol.
<b>Specific gravity or density:</b>	Not available.
<b>Flash Point:</b>	Not available.
<b>Flammable (explosive) limits:</b>	Not available.
<b>Ignition temperature:</b>	Not available.
<b>Additional Information:</b>	Not available.

## SECTION 10 - STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable under normal conditions of use.
<b>Conditions to avoid:</b>	Excess heat, incompatible materials.
<b>Incompatible Materials:</b>	Highly reactive with oxidizing agents. Reactive with reducing agents, acids. Incompatible with strong acids (i.e. Hydrochloric, Sulfuric, and Nitric) and reducing agents.
<b>Hazardous Decomposition Products:</b>	May be combustible at high temperature. These products are carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ...), sulfur oxides (SO <sub>2</sub> , SO <sub>3</sub> ...). Some metallic oxides. Slightly flammable to flammable in presence of open flames and sparks, of heat, of oxidizing materials. Non-flammable in presence of shocks. Slightly explosive in presence of oxidizing materials. Strong oxidizing agents can cause fire on contact. Avoid contact with oxidizing agents (i.e. perchlorates, peroxide, permanganates, chlorates, nitrates, chlorine, bromine, and fluorine) as a fire or explosion can occur on contact.
<b>Hazardous Reactions:</b>	Decomposes on exposure to acid fumes. Avoid contact with oxidizing agents (i.e. perchlorates, peroxide, permanganates, chlorates, nitrates, chlorine, bromine, and fluorine) as a fire or explosion can occur on contact. Incompatible with strong acids (i.e. Hydrochloric, Sulfuric, and Nitric) and reducing agents.

## SECTION 11 - TOXICOLOGICAL INFORMATION

<b>Exposure and Health Effects:</b>	
<b>Ingestion:</b>	May be harmful if swallowed, particularly if ingested in large amounts. May cause gastrointestinal tract irritation with nausea, vomiting and diarrhea. May affect blood (change in clotting factors, alterations of platelets and leukocytes, transient leukopenia, leukocytosis), behavior (somnia), respiration (dyspnea, chronic pulmonary edema), and the vascular system.
<b>Inhalation:</b>	May be harmful if inhaled. May cause respiratory tract and mucous membrane irritation.
<b>Skin Contact:</b>	May cause skin irritation. May cause allergic reaction
<b>Eye Contact:</b>	Causes eye irritation
<b>Human/Animal data:</b>	Acute oral toxicity (LD50): 15200 mg/kg [Rat].
<b>Carcinogenicity:</b>	MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Classified POSSIBLE for human. May cause adverse reproductive effects (fetotoxicity, female and male fertility) and birth defects (teratogenic -developmental abnormalities) based on animal data. May affect genetic material (mutagenic) based on animal data. No data is available from IARC, NTP, or OSHA regarding the carcinogenicity of Congo Red. However, Congo Red is a benzidine-based dye and benzidine has been classified by IARC as Group 1 carcinogen.

**SECTION 12 – ECOLOGICAL INFORMATION**

<b>Ecotoxicity:</b>	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
<b>Persistence and degradability:</b>	The product itself and its products of degradation are not toxic.
<b>Mobility:</b>	Not available.
<b>Additional Information:</b>	Not available.

**SECTION 13 - DISPOSAL CONSIDERATIONS****Disposal Methods:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Special Precautions:**

Not available.

**SECTION 14 - TRANSPORT INFORMATION**

<b>UN Number:</b>	Not applicable.
<b>UN Proper Shipping Name:</b>	Not applicable.
<b>Class and Subsidiary risk:</b>	Not applicable.
<b>Packing Group:</b>	Not applicable.
<b>Special Precautions for User:</b>	Not available.
<b>Hazchem Code:</b>	Not available.

**SECTION 15 - REGULATORY INFORMATION**

**Poison Schedule Number:** None allocated.

**SECTION 16 - OTHER INFORMATION**

Date of preparation of MSDS: November 09

Comment:

The information published in this Material Safety Data Sheet has been compiled from data in various technical publications. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. We reserve the right to revise material Safety Data Sheets as new information becomes available. Copies may be made for non-profit use.