

SAFETY DATA SHEET



PCT International Pty Ltd

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Reactor RED DYE™

LIQUID MARKING DYE

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE PRODUCT AND THE MANUFACTURER

Product Name: Reactor RED DYE liquid marking dye
Product Code: none
Product Use: Non-toxic dye for marking vegetation when using herbicides
Poison Schedule: not scheduled
Supplier: PCT International Pty Ltd
ABN: 44 101 170 923
Street Address: Unit 5 / 74 Murdoch Circuit, ACACIA RIDGE QLD 4110
Telephone: + 61 7 3711 7022
Facsimile: + 61 7 3711 7055

Emergency telephone No: 1800 630 877

Other Information: This SDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

MSDS Creation Date: 17th July, 2013

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Formulation Type: Liquid solution

Ingredients	CAS No	Concentration
Diazo dye		150 g/L
Diethylene Glycol	111-46-6	60-90%
Other ingredients not considered to be hazardous		to 100%

SAFETY DATA SHEET

3. HAZARDS IDENTIFICATION

Emergency Overview Harmful if swallowed. Risk of serious damage to eyes.

Physical Appearance

Form: Liquid
Colour: Strong red
Odour: Slight aromatic odour
Water Solubility: Soluble in water
pH: n/a

Potential Health Effects

Eyes: Irritating to the eyes. Prolonged contact may cause damage.
Skin: May cause slight irritation and drying of the skin.
Ingestion: Harmful if swallowed.
Inhalation: Inhalation of spray mists may produce respiratory irritation, and can result in headaches.

Primary Routes of Entry:

Entry: Eyes, Skin, Inhalation, Ingestion
Target Organs: Eyes, Skin, Respiratory Tract, Digestive System
Carcinogenicity: Not listed by NTP, IARC, ACGIH or OSHA as a carcinogen

4. FIRST AID MEASURES

Eyes: Flush eye(s) for 15 minutes or more- If irritation persists, consult a doctor (preferably an eye specialist) and show this SDS.
Skin: Remove any contaminated clothing. Wash affected areas immediately and thoroughly with soap and water.
Ingestion: Rinse mouth and then drink plenty of water. Do not induce vomiting. If swallowed seek medical advice and show this SDS.
Inhalation: Remove affected person from site of exposure to fresh air until recovered. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Seek medical attention if symptoms persist.
First Aid Facilities: If poisoning occurs, contact a doctor or Poisons Information Centre on **13 11 26** (Australia).
General Advice: Remove soiled or soaked / contaminated clothing immediately.
Information for doctor: Treat symptomatically. Gastric lavage with medicinal charcoal in water is recommended.

5. FIRE-FIGHTING MEASURES

Flash Point: Not applicable
Autoignition Temperature: Not applicable.
Upper Explosion Limits: Not applicable.
Lower Explosion Limits: Not applicable.
Suitable Extinguishing Media: Foam, carbon dioxide, dry powder, water spray. Do not use a water jet from a fire hose.
By-products in case of Fire: If involved in a fire, the product will emit oxides of carbon, oxides of nitrogen and possibly traces of hydrogen chloride.
Further Information: Keep unnecessary persons away from the area. If safe to do so, remove intact containers, otherwise use water spray to cool them. Collect contaminated firefighting water separately, by bunding the area with sand or earth. Fire control water must not be discharged into drains.
Special Protective Equipment for Firefighters: As in any fire, water, self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective clothing.

SAFETY DATA SHEET

6. ACCIDENTAL RELEASE MEASURES

Methods for Cleaning Up/ Taking Up:

Spills: Dealing with spills has the potential to increase the risk of personal exposure- during such operations, ensure that protective clothing is worn as detailed below. Avoid contact with spilled material or contaminated surfaces. Keep people and animals away. Prevent spillage from entering drains, sewers or watercourses. If contamination thereof is unavoidable, warn the local water authority. Spills should be contained and absorbed with soil, sand, sawdust, clay, cat litter or other similar material, and once absorption is complete, this material then be placed in sealable, labeled, drums for safe disposal in an approved landfill, and in accordance with the requirements of local or State Waste Management Authorities. Alternatively, bury under at least 500^{mm} of soil in an area away from crops, pastures, homes or water sources. To decontaminate spill area, tools and equipment, wash with a suitable solution, e.g. organic solvent, detergent, bleach or caustic, and add this material to the drums of waste already collected. Label all contents. Do not burn empty containers or product.

7. HANDLING AND STORAGE

Advice on safe

Handling:

Keep out of reach of children. Avoid contact with eyes and skin. Wash hands after use, and before smoking or eating / drinking. Wash protective gear and clothing after each day's use. Spray marker dye is coloured and will strongly stain skin and clothing. If skin has been exposed to the product, thorough washing with soap and water will remove any excess product. The colour on the skin is not deep and will naturally disappear over a few days.

Advice on protection against fire and explosion:

Use product and diluted mix only in a well ventilated area.

Storage information:

Keep product in the original container, tightly closed, in a cool, well ventilated and secure area. Do not store for prolonged periods in direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure

Standards:

NOHSC has set the following exposure standard for diethylene glycol : TLV (TWA) 100 mg/m³, STEL

General protective

Measures:

Avoid contact with eyes and skin
Do not inhale mists.

Hygiene Measures:

No smoking, eating or drinking allowed when using this product.
Wash hands before breaks and at end of work shift.
Protective ointment is recommended.

Respiratory

Protection:

In case of formation of mists or vapours, an organic vapour cartridge respirator should be used.

Hand Protection:

Elbow length PVC gloves should be worn when using this product.

Eye Protection:

Safety goggles and/or face shield is recommended when using this product.

Protective clothing:

Cotton overalls buttoned to the neck and wrist, and a washable hat, are required when using this product.

Engineering Controls:

Use in a well ventilated area only. Good general (mechanical) ventilation should be sufficient to control airborne mist levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Strong red liquid

Odour:

Slight aromatic odour.

Solubility in Water:

Soluble in water.

Specific Gravity

(H₂O=1):

approx. 0.945 @ 20°C

pH Value:

not determined

SAFETY DATA SHEET

Vapour Pressure: 0.0013 kPa @ 20°C (diethylene glycol)
Melting Temperature: not measured
Boiling temperature: >240°C
Viscosity, dynamic: not measured

10. STABILITY AND REACTIVITY

Conditions to avoid: None with proper storage and handling, other than extreme heat.
Thermal
Decomposition: Not measured.
Hazardous reactions: No hazardous reactions with proper storage and handling
Hazardous
Polymerization: Unlikely to occur.
Stability: Stable under normal conditions of storage and use.
Hazardous decomposition products: Strong reactions between spray marker dye and oxidising agents are possible.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity - Oral: LD₅₀ (rat) 400-2000 mg/kg.
Acute Toxicity - Inhalation: not determined
Acute Toxicity - Dermal: not determined
Eye Irritation: (Species - rabbit) moderate irritant
Skin Irritation: (Species - rabbit) non - irritant
Skin Sensitisation: (Species - guinea pig) non-sensitising
Note: harmful by inhalation and in contact with skin
Irritant to skin
Risk of serious damage to eyes
The toxicological data refer to the undiluted 100% product.

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects:
Acute Toxicity – Fish: not determined.
Acute Toxicity - Fish: not determined.
Acute Toxicity – Algae: not determined
Acute Toxicity – Birds: not determined
Further ecological information:
Ecological notes: Do not contaminate any waterways with this product.

13. DISPOSAL CONSIDERATIONS

ALWAYS DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

Product Disposal: In accordance with local authority regulations, take to special waste incineration plant.

Container Disposal: Dispose of empty, used containers by triple rinsing, or preferably pressure rinsing. Add the rinsate to the spray tank or dispose of the rinsate in a disposal pit away from desirable plants and their roots and from watercourses. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return cleaned containers to a recycler or designated collection point. If not recycling, break, crush or puncture empty containers and bury in a local authority landfill. If no landfill available, bury the containers at

SAFETY DATA SHEET

least 500^{mm} deep in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

U.N. Number: n/a
DG Class: n/a
Hazchem Code: None Allocated
Class & Subsidiary Risk: n/a
Packing Group: 111
EPG: n/a
Storage and Transport: Considered non – dangerous goods for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. REGULATORY INFORMATION

Risk Phrases: R65 Harmful- may cause lung damage if swallowed.

Safety Phrases: S24/25 Avoid Contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

Poisons Schedule: not scheduled

Packaging & Labeling: READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Hazard Category AICS (Australia): Listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Contact Person/Point: Mr David Pearson Phone: (07) 3711 7022

This SDS contains only safety-related information. For other data, see product literature.

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...End of SDS...