MATERIAL SAFETY DATA SHEET
Carbol fuchsin, dilute aqueous stain

STATEMENT OF HAZARDOUS NATURE
Hazardous according to criteria of Worksafe Australia

COMPANY DETAILS
Company: ProSciTech
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IDENTIFICATION SECTION
Product Name: Carbol fuchsin, dilute aqueous stain
Other Names: Diluted Carbol Fuchsin
Product Code: ACFD-500
U.N. Number: None allocated
Dangerous Goods Class: None allocated
and Subsidiary Risk: None allocated
Hazchem Code: None allocated
Poison Schedule: None allocated
Use: Used in Hospital and Pathology Microbiology laboratories only

Physical Description and Properties
Appearance: Bright red liquid
Boiling Point/Melting Point: approx. 100°C/0°C
Vapour Pressure: 30hPa@20°C
Specific Gravity: 1L=1.01kg
Flash Point: Not determined
Flammability Limits: Not determined
Solubility in water: Soluble in all proportions

Other Properties

Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARAROSANILINE CHLORIDE (Below Cutoff)</td>
<td>569-61-9</td>
<td>0.1%</td>
</tr>
<tr>
<td>METHANOL (Below Cutoff)</td>
<td>67-56-1</td>
<td>1%</td>
</tr>
<tr>
<td>PHENOL (Below Cutoff)</td>
<td>108-95-2</td>
<td>0.5%</td>
</tr>
<tr>
<td>WATER AND OTHER NON-HAZARDOUS SUBSTANCES</td>
<td>Mixture</td>
<td>98.4%</td>
</tr>
</tbody>
</table>

Cumulative Hazardous Substance from Below Cutoffs: Mixture 0%
HEALTH HAZARD INFORMATION

Health Effects:

Acute Swallowed:
Harmful if swallowed. May cause irritation to mouth, throat and stomach with effects including mucous build up, irritation to the tongue and lips and pains in the stomach, which may lead to nausea, vomiting and diarrhoea.

Additional information for Swallowed. Overexposure to methanol has been suggested as a cause of the following effects in both laboratory animals and humans: Liver abnormalities, kidney damage, eye damage, lung damage, brain damage and nervous system damage. Methanol has been reported to cause death or serious irreversible injury such as blindness in humans. Studies in experimental animals indicate that the metabolism of methanol to formic acid results in metabolic acidosis and reversible or irreversible damage to the optic nerve. Ingestion of methanol, even in small amounts, can cause blindness and death. Onset of symptoms may be delayed for 18 - 24 hours and are similar in affect to ethanol poisoning.

Eye:
May cause irritation to the eyes, with effects including: tearing, pain, stinging and blurred vision.

Skin:
Harmful by skin contact. May cause irritation to the skin, with effects including; Redness and itchiness.

Inhaled:
Mists from the product may cause irritation to the nose, throat and respiratory system with effects including: Cough, discomfort, difficulty breathing and shortness of breath.

Chronic:
Product may also be absorbed through the skin with resultant toxic effects. Prolonged or repeated exposure may lead to irreversible damage to health.

First Aid:

Swallowed:
If swallowed, DO NOT induce vomiting. Give 3 to 4 glasses of water to drink. Seek immediate medical assistance.

Eye:
If material is splashed into eyes, immediately, flush with plenty of water for 15 minutes, ensuring eye lids are held open. If irritation persists transport to hospital or doctor.

Skin:
If material is splashed onto the skin, remove any contaminated clothing and wash skin thoroughly with soap and water. If irritation persists transport to hospital or doctor. Additional information for Skin: If product contains less than 25 % phenol, then remove any contaminated clothing, wash thoroughly with soap and water, then methylated spirits. If product contains greater than 25 % phenol, then remove any contaminated clothing, swab repeatedly with glycerin, PEG (polyethylene glycol) or PEG - methylated spirits mixture or if necessary or available methylated spirits alone.

Inhaled:
Move victim to fresh air. Apply resuscitation if victim is not breathing.

First Aid Facilities:
Eye wash fountain, safety shower and normal wash room facilities

Advice to Doctor
Treat symptomatically. In case of poisoning, contact Poisons Information Centre. In Australia call Tel: 131126 In New Zealand Tel: 034747000

PRECAUTIONS FOR USE

Exposure Standards:

METHANOL (Below Cutoff)
(Worksafe Australia)
[TWA]200 ppm 262 mg/m³
[STEL]250 ppm 328 mg/m³

Notices: Sk

References: H
Carbol fuchsin, dilute aqueous stain

(ACGIH)
[TWA] 200 ppm 262 mg/m³
[STEL] 250 ppm 328 mg/m³

Notices: Sk

PHENOL (Below Cutoff)
(Worksafe Australia)
[TWA] 1 ppm 4 mg/m³

Notices: Sk

References: A

(ACGIH)
[TWA] 5 ppm 19 mg/m³

Carcinogen Category: A4

Engineering Controls:
Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate unless the material is heated, reacted or otherwise changed in some type of chemical reaction, then the use of a local exhaust ventilation system is recommended.

Personal Protection:
GLOVES: Not normally required, however, if handling large quantities or if the skin is likely to be exposed to this product over prolonged periods, then the use of PVC or natural rubber is recommended.
EYES: Chemical goggles or faceshield to protect eyes.
RESPIRATORY PROTECTION: Avoid breathing of vapours/gases. Select and use respirators in accordance with AS/NZS 1715/1716. The use of a dust mask (disposable) or a half-face respirator with P1 filter is recommended. Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended.

Flammability:
This material is not a flammable or combustible liquid

SAFE HANDLING INFORMATION

Storage and Transport:
Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition. Store away from oxidizing agents. Keep containers closed, when not using the product. Store in original packages as approved by manufacturer.

Spills and Disposal:
Material may be slippery when spilt. Walk cautiously. Ventilate area. Wear protective equipment to prevent skin and eye contact, as outlined under personal protection in this MSDS. Bund area using sand or soil - to prevent run off into drains and waterways. Use absorbent (soil, sand, vermiculite or other inert material). Collect and seal in properly labelled containers for disposal.

Fire/Explosion Hazard:
If safe to do so, move undamaged containers from fire area.
Hazardous Decomposition Products: Decomposes on heating emitting oxides of carbon.
Fire Fighting Procedures: Fire fighters to wear Self-contained breathing apparatus (SCBA) in confined spaces, in oxygen deficient atmospheres or if exposed to products of decomposition. Full protective clothing is also recommended.
Extinguishing Media: Use extinguishing media suitable for surrounding fire situation.

OTHER INFORMATION
**Carbol fuchsine, dilute aqueous stain**

**Incompatibilities**
(Materials to avoid)

Strong alkalis, acids and oxidizing agents.

**Animal Toxicity Data:**

Oral (rat): 728 mg/kg/2Y continuous feeding.

TOXIC EFFECTS: Tumorigenic according to the criteria of the Registry of Toxic Effects of Chemical Substances (RTECS), particularly of liver and of the thyroid. PARAROSANILINE CHLORIDE has been classified as a CATEGORY 3 CARCINOGEN (WORKSAFE). Substances suspected of having carcinogenic potential are those substances which have possible carcinogenic effects on humans but in respect of which the available information is not adequate for making a satisfactory assessment. There is some evidence from appropriate animal or epidemiological studies, but this is insufficient to place the substance in Category 2.