SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : Carbol Fuchsin

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25233

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:
AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:
Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:
Fisher Science Education   Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:

- **Irritant**
  - Acute toxicity (oral, dermal, inhalation), category 4
  - Skin irritation, category 2

- **Health hazard**
  - Carcinogenicity, category 2
  - Germ cell mutagenicity, category 2
  - Specific target organ toxicity following single exposure, category 1
  - Specific target organ toxicity following repeated exposure, category 2

- **Corrosive**
  - Serious eye damage, category 1

- **Flammable**
  - Flammable liquids, category 3

Acute Tox. 4 (Oral)
Carc. 2
Flam. Liq. 3
Aquatic Acute 3
Acute Tox. 4 (Inhalation)
Acute Tox. 4 (Dermal)
Eye Dam. 1
Skin Irrit. 2
Muta. 2
STOT RE 2
STOT SE 1

**Signal word** : Danger
Hazard statements:
- Flammable liquid and vapour
- Harmful if swallowed
- Harmful in contact with skin
- Harmful if inhaled
- Suspected of causing cancer
- Suspected of causing genetic defects
- Causes damage to organs
- May cause damage to organs through prolonged or repeated exposure
- Causes serious eye damage
- Causes skin irritation
- Harmful to aquatic life

Precautionary statements:
- If medical advice is needed, have product container or label at hand
- Keep out of reach of children
- Read label before use
- Obtain special instructions before use
- Keep away from heat/sparks/open flames/hot surfaces. No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use explosion-proof electrical/ventilating/light/equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge
- Avoid release to the environment
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Do not breathe dust/fume/gas/mist/vapours/spray
- Wash skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid breathing dust/fume/gas/mist/vapours/spray
- Use only outdoors or in a well-ventilated area
- IF exposed or concerned: Get medical advice/attention
- Call a POISON CENTER or doctor/physician if you feel unwell
- Get Medical advice/attention if you feel unwell
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
- Immediately call a POISON CENTER or doctor/physician
- If skin irritation occurs: Get medical advice/attention
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- Take off contaminated clothing and wash before reuse
- In case of fire: Use agents recommended in section 5 for extinction
- IF exposed: Call a POISON CENTER or doctor/physician
- Specific treatment (see supplemental first aid instructions on this label)
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- Rinse mouth
- IF ON SKIN: Wash with soap and water
- Specific measures (see supplemental first aid instructions on this label)
- Wash contaminated clothing before reuse
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Store locked up
- Store in a well ventilated place. Keep cool
- Dispose of contents and container to an approved waste disposal plant
Other Non-GHS Classification:

<table>
<thead>
<tr>
<th>Health</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>2</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>X</td>
</tr>
</tbody>
</table>

NFPA SCALE (0-4)

NFPA/HMIS

SECTION 3 : Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deionized Water</td>
<td>7732-18-5</td>
<td>87.38 %</td>
</tr>
<tr>
<td>Fuchsin Basic, Dry Salt</td>
<td>632-99-5</td>
<td>0.3 %</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>7.92 %</td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>4.4 %</td>
</tr>
</tbody>
</table>

Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

**After inhalation:** Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Loosen clothing and place exposed in a comfortable position. Seek medical assistance if cough or other symptoms appear.

**After skin contact:** Wash hands and exposed skin with soap and plenty of water. Seek medical attention if irritation persists or if concerned.

**After eye contact:** Protect unexposed eye. Flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Seek immediate medical attention.

**After swallowing:** Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention if irritation, discomfort, or vomiting persists.

Most important symptoms and effects, both acute and delayed:


Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

**Suitable extinguishing agents:** Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

**For safety reasons unsuitable extinguishing agents:**
Safety Data Sheet
according to 29CFR1910/1200 and GHS Rev. 3

Effective date: 01.31.2015

Carbol Fuchsin

Special hazards arising from the substance or mixture:
Thermal decomposition can lead to release of irritating gases and vapors.

Advice for firefighters:

- **Protective equipment**: Wear protective eyeware, gloves, and clothing. Refer to Section 8.
- **Additional information (precautions)**: Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**
Ensure adequate ventilation. Ensure that air-handling systems are operational. Avoid contact with skin, eyes and clothing.

**Environmental precautions:**
Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

**Methods and material for containment and cleaning up:**
Wear protective eyeware, gloves, and clothing. Refer to Section 8. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal. Absorb spill with inert material (e.g. vermiculite, sand or earth). Use non-sparking equipment.

Reference to other sections:

SECTION 7: Handling and storage

**Precautions for safe handling:**
Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances. Empty containers can still be hazardous since they retain product residue. Do not add water in case of insufficient ventilation.

**Conditions for safe storage, including any incompatibilities:**
Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials. Store in secure, flammable storage area away from sources of ignition.

SECTION 8: Exposure controls/personal protection

**Control Parameters:**
- 67-56-1, Methanol, OSHA REL TWA 260 mg/m³
- 67-56-1, Methanol, ACGIH TLV TWA 260 mg/m³
- 108-95-2, Phenol, ACGIH TLV TWA 15 mg/m³
- 108-95-2, Phenol, OSHA REL TWA 15 mg/m³

**Appropriate Engineering controls:**
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Use under a chemical fume hood.
Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment. Use under a chemical fume hood.

Protection of skin: Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Eye protection: Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

SECTION 9 : Physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance (physical state,color):</th>
<th>Explosion limit lower:</th>
<th>Explosion limit upper:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opaque Red liquid</td>
<td>4%</td>
<td>20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Odor:</th>
<th>Vapor pressure:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol odor</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Odor threshold:</th>
<th>Vapor density:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Determined</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>pH-value:</th>
<th>Relative density:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Determined</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Melting/Freezing point:</th>
<th>Solubilities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Determined</td>
<td>Soluble in water</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boiling point/Boiling range:</th>
<th>Partition coefficient (n-octanol/water):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Determined</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash point (closed cup):</th>
<th>Auto/Self-ignition temperature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>47.7 C</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaporation rate:</th>
<th>Decomposition temperature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Determined</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flammability (solid,gaseous):</th>
<th>Viscosity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable</td>
<td>a. Kinematic:Not Determined</td>
</tr>
<tr>
<td></td>
<td>b. Dynamic: Not Determined</td>
</tr>
</tbody>
</table>

Density: Not Determined

SECTION 10 : Stability and reactivity

Reactivity: Nonreactive under normal conditions.
Chemical stability: Stable under normal conditions.
Possible hazardous reactions: None under normal processing. Vapours may form explosive mixture with air.
Conditions to avoid: Incompatible materials. Excess heat.
Incompatible materials: Strong oxidizers, acids, halogens, and calcium hypochlorite.
Hazardous decomposition products: Carbon dioxide, carbon monoxide, irritating and toxic gases

SECTION 11 : Toxicological information
### Acute Toxicity:

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
<th>Solvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LDLO Human - 143 mg/kg</td>
<td>Methanol</td>
</tr>
<tr>
<td>Inhalation</td>
<td>LC50: Rat 128.2 mg/l - 4h</td>
<td>Methanol</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50: rabbit 17,100 mg/kg</td>
<td>Methanol</td>
</tr>
<tr>
<td>Oral</td>
<td>LD50 Rat: 410.0 - 650.0 mg/kg</td>
<td>Phenol</td>
</tr>
</tbody>
</table>

### Chronic Toxicity: No additional information.

### Corrosion Irritation:

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
<th>Solvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ocular</td>
<td>Rabbit: Corrosive</td>
<td>Phenol</td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit: Severe irritation -24h</td>
<td>Phenol</td>
</tr>
</tbody>
</table>

### Sensitization:

<table>
<thead>
<tr>
<th>Value</th>
<th>Solvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol - Causes damage to organs.</td>
<td>Phenol - May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
</tbody>
</table>

### Single Target Organ (STOT):

<table>
<thead>
<tr>
<th>Value</th>
<th>Solvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol - Causes damage to organs.</td>
<td>Phenol - May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
</tbody>
</table>

### Numerical Measures:

<table>
<thead>
<tr>
<th>Value</th>
<th>Solvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No additional information.</td>
<td></td>
</tr>
</tbody>
</table>

### Carcinogenicity:

<table>
<thead>
<tr>
<th>Value</th>
<th>Solvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC:: Group 3: Not classifiable as to its carcinogenicity to humans (2-Propanol)</td>
<td>Phenol - In vitro tests showed mutagenic effects</td>
</tr>
<tr>
<td>IARC: Group 2B: Possibly carcinogenic to humans: Fuschin 632-99-5</td>
<td>Phenol - In vitro tests showed mutagenic effects</td>
</tr>
</tbody>
</table>

### Mutagenicity:

<table>
<thead>
<tr>
<th>Value</th>
<th>Solvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol - In vitro tests showed mutagenic effects</td>
<td>Phenol - In vitro tests showed mutagenic effects</td>
</tr>
</tbody>
</table>

### Reproductive Toxicity:

<table>
<thead>
<tr>
<th>Value</th>
<th>Solvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No additional information.</td>
<td></td>
</tr>
</tbody>
</table>

### Ecological Information

#### Ecotoxicity

- **Phenol**: fish LC50 - Leuciscus idus (Golden orfe) - 14.00 - 25.00 mg/l - 48 h
- **Phenol**: invertebrates EC50 - Daphnia magna (Water flea) - 56 mg/l - 48 h
- **Phenol**: algae EC50 - Chlorella vulgaris (Fresh water algae) - 370.00 mg/l - 96 h
- **Basic fuchsin**: fish LC50 - Oryzias latipes - 4.3 mg/l - 48 h

#### Persistence and degradability: Readily degradable in the environment.

#### Bioaccumulative potential: Bioaccumulation is expected to be low.

#### Mobility in soil: No information Available.

#### Other adverse effects:

### Disposal Considerations

#### Waste disposal recommendations:

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed together with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and...
SECTION 14 : Transport information

UN-Number
1992

UN proper shipping name
Flammable Liquids, Toxic, N.O.S., (Ethyl alcohol, phenol solution)

Transport hazard class(es)
- Class: 3 Flammable liquids
- Class: 6.1 Toxic substances

Packing group: III

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):
- Acute, Chronic, Fire

SARA Section 313 (Specific toxic chemical listings):
- 67-56-1 Methanol
- 108-95-2 Phenol

RCRA (hazardous waste code):
- 67-56-1 Methanol - U154
- 108-95-2 Phenol - U188

TSCA (Toxic Substances Control Act):
- All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):
- 67-56-1 Methanol 5000 lbs
- 108-95-2 Phenol 1000 lbs

Proposition 65 (California):

Chemicals known to cause cancer:
- None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:
- None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:
- None of the ingredients is listed

Chemicals known to cause developmental toxicity:
- 67-56-1 Methanol

Canada
Canadian Domestic Substances List (DSL):
All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):
None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):
67-56-1 Methanol
108-95-2 Phenol

SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: . The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:

Effective date : 01.31.2015
Last updated : 03.19.2015