Safety Data Sheet

Aceto-Carmine (Schneider)

Section 1  Product Description

Product Name: Aceto-Carmine (Schneider)
Recommended Use: Science education applications
Synonyms: Acetocarmine
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2  Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER

Flammable liquid and vapor. Causes serious eye damage. Harmful to aquatic life.

GHS Classification:
Serious Eye Damage/Eye Irritation Category 1, Flammable Liquid Category 3, Hazardous to the aquatic environment - Acute Category 3

Section 3  Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>53</td>
</tr>
<tr>
<td>Acetic Acid, Glacial</td>
<td>64-19-7</td>
<td>45</td>
</tr>
<tr>
<td>Carmine</td>
<td>1390-65-4</td>
<td>2</td>
</tr>
</tbody>
</table>

Section 4  First Aid Measures

Emergency and First Aid Procedures
Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin Contact: After contact with skin, wash immediately with plenty of water.
Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5  Firefighting Procedures

Extinguishing Media: Use dry chemical, CO2 or appropriate foam.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

Section 6  Spill or Leak Procedures
Steps to Take in Case Material Is Released or Spilled:  Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Diike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area.

Section 7  Handling and Storage

Handling:  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/lighting/…/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Storage:  Keep container tightly closed. Store in a well-ventilated place. Keep cool. Keep container tightly closed in a cool, well-ventilated place.

Storage Code:  White - Corrosive. Separate acids from bases; separate oxidizer acids from organic acids.

Section 8  Protection Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH (TWA)</th>
<th>ACGIH (STEL)</th>
<th>OSHA PEL (TWA)</th>
<th>OSHA PEL (STEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid, Glacial</td>
<td>10 ppm TWA</td>
<td>15 ppm STEL</td>
<td>10 ppm TWA; 25 mg/m3 TWA</td>
<td>N/A</td>
</tr>
<tr>
<td>Carmine</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Control Parameters

Engineering Measures:  Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment (PPE):

Respiratory Protection:  No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 11. A respirator is not normally required.

Respirator Type(s):  None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

Eye Protection:  Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection:  Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves:  Nitrile - Extra Thick (8 mm)

Section 9  Physical Data

Formula: See Section 3
Molecular Weight:  No data available
Appearance:  Colorless Dark Red Liquid
Odor:  Strong Vinegar
Odor Threshold:  No data available
pH:  No data available
Melting Point:  No data available
Boiling Point:  No data available
Flash Point:  39 C
Flammable Limits in Air:  No data available

Vapor Pressure:  No data available
Evaporation Rate (BuAc=1):  No data available
Vapor Density (Air=1):  No data available
Specific Gravity:  > 1
Solubility in Water:  Soluble
Log Pow (calculated):  No data available
Autoignition Temperature:  No data available
Decomposition Temperature:  No data available
Viscosity:  No data available
Percent Volatile by Volume:  No data available

Section 10  Reactivity Data

Reactivity:  Not generally reactive under normal conditions.
Safety Data Sheet

Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible Materials: Water-reactive materials, Acetic anhydride, Acetaldehydes, Caustics (bases), Oxidizing materials, Halogens, Carbonates, Strong oxidizing agents
Hazardous Polymerization: Will not occur

Section 11  Toxicity Data

Routes of Entry: Inhalation, Ingestion, and Skin contact.
Symptoms (Acute): Impaired Kidney Function, Respiratory Irritation, Lachrymation, Allergies
Delayed Effects: No data available

Acute Toxicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Oral LD50 Rat</td>
<td>90000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Acetic Acid, Glacial</td>
<td>64-19-7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid</td>
<td>64-19-7</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Carmine</td>
<td>1390-65-4</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Chronic Effects:

| Mutagenicity:    | No evidence of a mutagenic effect. |
| Teratogenicity:  | No evidence of a teratogenic effect (birth defect). |
| Sensitization:   | No evidence of a sensitization effect. |
| Reproductive:    | No evidence of negative reproductive effects. |
| Target Organ Effects:
| Acute:          | Respiratory system |
| Chronic:        | Teeth, Respiratory system |

Section 12  Ecological Data

Overview: Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.
Mobility: This material is expected to have moderate mobility in soil. It absorbs to most soil types.
Persistence: Biodegradation, Photodegradation, Adsorbs to soil.
Bioaccumulation: Bioconcentration is not expected to occur.
Degradability: Biodegrades quickly.
Other Adverse Effects: No data

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Eco Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No data available</td>
</tr>
<tr>
<td>Acetic Acid, Glacial</td>
<td>64-19-7</td>
<td>Aquatic LC50 (96h) Fathead Minnow 79 MG/L</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aquatic EC50 (24h) Daphnia 47 MG/L</td>
</tr>
<tr>
<td>Carmine</td>
<td>1390-65-4</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Section 13  Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): If discarded, this product is considered a RCRA corrosive waste, D002.
Section 14
Transport Information

Ground - DOT Proper Shipping Name: UN 2790
Acetic Acid Solution
Class 8
P.G. III

Air - IATA Proper Shipping Name: UN 2790
Acetic Acid Solution
Class 8
P.G. III

Section 15
Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>§ 313 Name</th>
<th>§ 304 RQ</th>
<th>CERCLA RQ</th>
<th>§ 302 TPQ</th>
<th>CAA 112(2) TQ</th>
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</thead>
<tbody>
<tr>
<td>Acetic Acid, Glacial</td>
<td>64-19-7</td>
<td>No</td>
<td>5000 lb</td>
<td>5000 lb</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ</td>
<td>final RQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carmine</td>
<td>1390-65-4</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Section 16
Additional Information

Revised: 10/20/2015
Replaces: 09/09/2015
Printed: 10-29-2015

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

- ACGIH: American Conference of Governmental Industrial Hygienists
- CAS: Chemical Abstract Service Number
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
- DOT: U.S. Department of Transportation
- IARC: International Agency for Research on Cancer
- N/A: Not Available
- NTP: National Toxicology Program
- OSHA: Occupational Safety and Health Administration
- PEL: Permissible Exposure Limit
- ppm: Parts per million
- RCRA: Resource Conservation and Recovery Act
- SARA: Superfund Amendments and Reauthorization Act
- TLV: Threshold Limit Value
- TSCA: Toxic Substances Control Act
- IDLH: Immediately dangerous to life and health