Material Safety Data Sheet
Gentian Violet

MSDS# 10350

Section 1 - Chemical Product and Company Identification

MSDS Name: Gentian Violet
Catalog Numbers: C581-100, C581-25, G12-100
Synonyms: Aniline violet; Crystal violet; Hexamethyl pararosaniline chloride.

Company Identification:
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call:
201-796-7100
Emergency Number US:
201-796-7100
CHEMTREX Phone Number, US:
800-424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#:</th>
<th>548-62-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name:</td>
<td>C.I. BASIC VIOLET 1</td>
</tr>
<tr>
<td>%:</td>
<td>~100.0</td>
</tr>
<tr>
<td>EINECS#:</td>
<td>208-953-6</td>
</tr>
</tbody>
</table>

Hazard Symbols: XN

Risk Phrases: 22 41

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! May cause skin irritation. Harmful if swallowed. May cause respiratory and digestive tract irritation. May cause severe eye irritation and possible injury. May cause reproductive and fetal effects. Target Organs: Eyes.

Potential Health Effects

Eye: May cause severe eye irritation. This product contains a cationic dye. Similar dyes have caused permanent injury to the cornea and conjunctiva in documented exposure cases with human or rabbit eyes.

Skin: May cause skin irritation.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.
Inhalation: May cause respiratory tract irritation.
Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. Combustion generates toxic fumes.

Extinguishing Media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
Explosion Limits:
  Lower: Not available
  Upper: Not available
NFPA Rating: health: 2; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions.

Section 7 - Handling and Storage

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. May form flammable dust-air mixtures. Avoid contact with skin and eyes. Keep container tightly closed. Avoid ingestion and inhalation.
Storage: Do not store in direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.I. BASIC VIOLET 1</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: C.I. BASIC VIOLET 1: None listed

Engineering Controls:
Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: green
Odor: none reported
pH: Not available
Vapor Pressure: Negligible.
Vapor Density: Not applicable.
Evaporation Rate: Negligible.
Viscosity: Not available
Boiling Point: Not applicable.
Freezing/Melting Point: Not available
Decomposition Temperature: Not available
Solubility in water: Soluble in water.
Specific Gravity/Density: Not available.
Molecular Formula: C25H30CIN3
Molecular Weight: 407.6831

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Materials containing similar functional groups can decompose at elevated temperatures.

Conditions to Avoid: Incompatible materials, dust generation.

Incompatibilities with Other Materials: Strong oxidizing agents.


Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 548-62-9: BO9000000
RTECS: CAS# 548-62-9: Oral, mouse: LD50 = 96 mg/kg;
LD50/LC50: Oral, rabbit: LD50 = 150 mg/kg;
Oral, rat: LD50 = 420 mg/kg;

Carcinogenicity: C.I. BASIC VIOLET 1 - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Not regulated as a hazardous material
Hazard Class:
UN Number:
Packing Group:
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XN
Risk Phrases:
R 22 Harmful if swallowed.
R 41 Risk of serious damage to eyes.
Safety Phrases:
S 22 Do not breathe dust.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

WGK (Water Danger/Protection)
CAS# 548-62-9: 2

Canada
CAS# 548-62-9 is listed on Canada's DSL List
Canadian WHMIS Classifications: D1B, D2B
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
CAS# 548-62-9 is listed on Canada's Ingredient Disclosure List

US Federal
TSCA
CAS# 548-62-9 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 11/11/1997
Revision #5 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.