

# Safety Data Sheet

## Crystal Violet

**CAROLINA®**  
www.carolina.com

### Section 1 Product Description

**Product Name:** Crystal Violet  
**Recommended Use:** Science education applications  
**Synonyms:** Basic Violet 3, CI 42555, Gentian Violet, Aniline Violet, Methanaminium, N-(4-(bis(4-(dimethylamino)phenyl)methylene)-2,5-cyclohexadien-1-ylidene)-N-methyl-, Chloride, Hexamethyl-P-rosaniline Chloride  
**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**



Toxic if swallowed. Causes skin irritation. Causes serious eye damage. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Very toxic to aquatic life.

**GHS Classification:**

Serious Eye Damage/Eye Irritation Category 1, Hazardous to the aquatic environment - Acute Category 1, Skin Corrosion/Irritation Category 2, Carcinogenicity Category 2, Reproductive Toxicity Category 2, Acute Toxicity - Oral Category 3

**Other Safety Precautions:** IF exposed or concerned: Get medical advice/attention.

|                                                     |                                                                    |
|-----------------------------------------------------|--------------------------------------------------------------------|
| <b>Acute Toxicity Dermal Contains</b>               | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Acute Toxicity Inhalation Gas Contains</b>       | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Acute Toxicity Inhalation Vapor Contains</b>     | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Acute Toxicity Inhalation Dust/Mist Contains</b> | 100 % of the mixture consists of ingredient(s) of unknown toxicity |

### Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u> | <u>CAS #</u> | <u>%</u> |
|----------------------|--------------|----------|
| Crystal Violet       | 548-62-9     | 100      |

### 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, take off immediately all contaminated clothing, and wash immediately with plenty of water.  
**Ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

### Section 5 Firefighting Procedures

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

## Section 6 Spill or Leak Procedures

|                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Steps to Take in Case Material Is Released or Spilled:</b> | Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.<br>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. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Collect spillage. |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Section 7 Handling and Storage

|                      |                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling:</b>     | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. Avoid direct sunlight and heat. |
| <b>Storage:</b>      | Store locked up. Keep container tightly closed in a cool, well-ventilated place.                                                                                                                                                                                                                                                                                                                  |
| <b>Storage Code:</b> | Green - general chemical storage                                                                                                                                                                                                                                                                                                                                                                  |

## Section 8 Protection Information

| <u>Chemical Name</u> | <u>ACGIH</u> | <u>OSHA PEL</u> |
|----------------------|--------------|-----------------|
| Crystal Violet       | (TWA)<br>N/A | (STEL)<br>N/A   |
|                      |              | (TWA)<br>N/A    |
|                      |              | (STEL)<br>N/A   |

### Control Parameters

|                                             |                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Engineering Measures:</b>                | No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.                                                                                                                                                                                             |
| <b>Personal Protective Equipment (PPE):</b> | Lab coat, apron, eye wash, safety shower.                                                                                                                                                                                                                                                                                                                          |
| <b>Respiratory Protection:</b>              |                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Respirator Type(s):</b>                  | None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.                                                                                                                                                                                         |
| <b>Eye Protection:</b>                      | Wear chemical splash goggles when handling this product. Have an eye wash station available.                                                                                                                                                                                                                                                                       |
| <b>Skin Protection:</b>                     | 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. |
| <b>Gloves:</b>                              | Butyl rubber, Neoprene, Nitrile, Polyvinyl chloride                                                                                                                                                                                                                                                                                                                |

## Section 9 Physical Data

|                                                   |                                                      |
|---------------------------------------------------|------------------------------------------------------|
| <b>Formula:</b> C25H30N3Cl                        | <b>Vapor Pressure:</b> No data available             |
| <b>Molecular Weight:</b> 407.97                   | <b>Evaporation Rate (BuAc=1):</b> No data available  |
| <b>Appearance:</b> Metallic Green Solid           | <b>Vapor Density (Air=1):</b> No data available      |
| <b>Odor:</b> No data available                    | <b>Specific Gravity:</b> No data available           |
| <b>Odor Threshold:</b> No data available          | <b>Solubility in Water:</b> Soluble                  |
| <b>pH:</b> No data available                      | <b>Log Pow (calculated):</b> 0.51                    |
| <b>Melting Point:</b> No data available           | <b>Autoignition Temperature:</b> No data available   |
| <b>Boiling Point:</b> No data available           | <b>Decomposition Temperature:</b> 215 C              |
| <b>Flash Point:</b> No data available             | <b>Viscosity:</b> No data available                  |
| <b>Flammable Limits in Air:</b> No data available | <b>Percent Volatile by Volume:</b> No data available |

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## Section 10

## Reactivity Data

|                                          |                                                                               |
|------------------------------------------|-------------------------------------------------------------------------------|
| <b>Reactivity:</b>                       | Not generally reactive under normal conditions.                               |
| <b>Chemical Stability:</b>               | Stable under normal conditions.                                               |
| <b>Conditions to Avoid:</b>              | Elevated temperatures                                                         |
| <b>Incompatible Materials:</b>           | Strong oxidizing agents                                                       |
| <b>Hazardous Decomposition Products:</b> | Hydrogen chloride, Nitrogen containing gases, Carbon dioxide, Carbon monoxide |
| <b>Hazardous Polymerization:</b>         | Will not occur                                                                |

## Section 11

## Toxicity Data

|                          |                                              |
|--------------------------|----------------------------------------------|
| <b>Routes of Entry</b>   | Inhalation, Ingestion, and Skin contact.     |
| <b>Symptoms (Acute):</b> | Cardiovascular system, Respiratory disorders |
| <b>Delayed Effects:</b>  | No data available                            |

### Acute Toxicity:

| Chemical Name  | CAS Number | Oral LD50                                                    | Dermal LD50    | Inhalation LC50 |
|----------------|------------|--------------------------------------------------------------|----------------|-----------------|
| Crystal Violet | 548-62-9   | Oral LD50 Rabbit<br>150 mg/kg<br>Oral LD50 Mouse<br>96 mg/kg | Not determined | Not determined  |

### Carcinogenicity:

| Chemical Name  | CAS Number | IARC       | NTP        | OSHA       |
|----------------|------------|------------|------------|------------|
| Crystal Violet | 548-62-9   | Not listed | Not listed | Not listed |

### Chronic Effects:

|                              |                                                   |
|------------------------------|---------------------------------------------------|
| <b>Mutagenicity:</b>         | No evidence of a mutagenic effect.                |
| <b>Teratogenicity:</b>       | Evidence of a teratogenic effect (birth defect).  |
| <b>Sensitization:</b>        | No evidence of a sensitization effect.            |
| <b>Reproductive:</b>         | Evidence of negative effects on the unborn fetus. |
| <b>Target Organ Effects:</b> |                                                   |
| <b>Acute:</b>                | Cardiovascular system, Respiratory system         |
| <b>Chronic:</b>              | No data available                                 |

## Section 12

## Ecological Data

|                               |                                                                                                            |
|-------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Overview:</b>              | Severe ecological hazard. This product may be toxic to plants and/or wildlife.                             |
| <b>Mobility:</b>              | This material is expected to have essentially no mobility in soil. It absorbs strongly to most soil types. |
| <b>Persistence:</b>           | Adsorbs to soil.                                                                                           |
| <b>Bioaccumulation:</b>       | Bioconcentration may occur.                                                                                |
| <b>Degradability:</b>         | Biodegrades quickly.                                                                                       |
| <b>Other Adverse Effects:</b> | No data                                                                                                    |

| Chemical Name  | CAS Number | Eco Toxicity |
|----------------|------------|--------------|
| Crystal Violet | 548-62-9   |              |

## Section 13

## Disposal Information

|                                |                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disposal Methods:</b>       | Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance. |
| <b>Waste Disposal Code(s):</b> | Not Determined                                                                                                                                        |

## Section 14

## Transport Information

|                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Ground - DOT Proper Shipping Name:</b><br>Not regulated for transport by US DOT. | <b>Air - IATA Proper Shipping Name:</b><br>Not regulated for air transport by IATA. |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|

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## Section 15

## Regulatory Information

### TSCA Status:

All components in this product are on the TSCA Inventory.

### Chemical Name

### CAS Number

### § 313 Name

### § 304 RQ

### CERCLA RQ

### § 302 TPQ

### CAA 112(2) TQ

Crystal Violet

548-62-9

No

No

No

No

No

### California Prop 65:

No California Proposition 65 ingredients

## Section 16

## Additional Information

Revised: 08/21/2018

Replaces: 06/15/2018

Printed: 08-24-2018

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