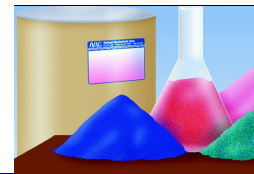




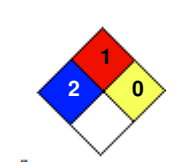
National Biochemicals Corp.
 1780 Enterprise Parkway
 Twinsburg, OH 44087 USA
 TEL: 330-425-2522, FAX: 330-425-2583



MATERIAL SAFETY DATA SHEET

Crystal Violet

| NPFA | HMIS | Personal Protective Equipment |
|------|------|-------------------------------|
|------|------|-------------------------------|



| | |
|--------------|---|
| HEALTH | 2 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |
| PPE | C |



In Case of Emergency: Call ChemTrac (24 hr): 800-424-9300, 703-527-3887 Call (330)425-2522

| | | |
|---------|----------------|----------|
| MC 0775 | Crystal Violet | MSDS1061 |
|---------|----------------|----------|

1. Product Identification

Product Name: Crystal Violet
 Catalog Number: MC 0775
 Synonyms: C.I. 42555; Gentian Violet; Hexamethyl-p-Rosaniline Chloride; Basic Violet 3
 CAS No.: 548-62-9
 Molecular Weight: 408
 Chemical Formula: [(CH3)2NC6H4]2C:C6H4:N(CH3)2Cl
 Product Codes: MC 3886

CHEMTREC (24 HR. EMERGENCY TELEPHONE NUMBER), CALL 1-800-424-9300
 INTERNATIONAL CHEMTREC, CALL: 1-703-527-3887

FOR NON-EMERGENCY ASSISTANCE, CALL: 1-330-425-2522

2. Composition/Information on Ingredients

Hexamethyl-p-roaniline Chloride 548-62-9 90 - 100% Yes

3. Hazards Identification

Emergency Overview

WARNING! CAUSES SEVERE EYE IRRITATION. HARMFUL IF SWALLOWED. MAY BE HARMFUL IF INHALED. MAY CAUSE IRRITATION TO SKIN AND RESPIRATORY TRACT.

Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate
 Flammability Rating: 1 - Slight
 Reactivity Rating: 1 - Slight
 Contact Rating: 3 - Severe
 Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES
 Storage Color Code: Green (General Storage)
 Potential Health Effects

Inhalation:
 Inhalation of dust may irritate the mucous membranes of the upper respiratory tract.

Ingestion:
 Toxic. Results in symptoms of nausea, vomiting, diarrhea, and abdominal pain. Severe systemic poisonings have not been reported in man, but animal studies have shown blood pressure rise and death from respiratory paralysis. Estimated lethal human dose: 1 tsp - 1 oz.

Skin Contact:
 May cause irritation. Can stain area of contacted skin.

4. First Aid Measures

Causes severe irritation. Contact may cause permanent eye damage.

Chronic Exposure:
 No information found.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse.

Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Eye Contact:

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

Note to Physician:

Monitor for possible nitrite intoxication.

5. Fire Fighting Measures

Fire:

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Explosion:

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

7. Handling and Storage

Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Dark green powder or greenish glistening pieces having a metallic luster.

Odor: Slight characteristic odor. Odorless.

Solubility: Soluble in water.

Specific Gravity: No information found.

pH: No information found.

% Volatiles by volume @ 21C (70F): 0

Boiling Point: No information found.

Melting Point: 215C (419F)

Vapor Density (Air=1): Not applicable.

Vapor Pressure (mm Hg): Not applicable.

Evaporation Rate (BuAc=1): No information found.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

When heated to decomposition it emits toxic fumes of nitrogen oxides and hydrogen chloride.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Strong acids and oxidizing agents.

Conditions to Avoid:

Heat, dusting and incompatibles. Incompatibles.

11. Toxicological Information

Oral rat LD50: 420 mg/kg. Investigated as a tumorigen, mutagen, reproductive effector.

-----\Cancer Lists\-----

---NTP Carcinogen---

Ingredient Known Anticipated IARC Category

Hexamethyl-p-rosaniline Chloride No No None
(548-62-9)

12. Ecological Information

Environmental Fate:

No information found.

Environmental Toxicity:

Dangerous to the environment. Very toxic to aquatic organisms; may cause long term adverse effects in the aquatic environment.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----

Ingredient TSCA EC Japan Australia

Hexamethyl-p-rosaniline Chloride (548-62-9) Yes Yes Yes Yes

-----\Chemical Inventory Status - Part 2\-----

--Canada--

Wednesday, May 31, 2006 Page 3 of 5 MC 3886 MSDS 0328

MC 3886 MSDS0328 Crystal Violet

16. Other Information

NFPA Ratings: Health: 2 Flammability: 1 Reactivity: 0

Label Hazard Warning:

WARNING! CAUSES SEVERE EYE IRRITATION. HARMFUL IF SWALLOWED. MAY BE HARMFUL IF INHALED. MAY CAUSE IRRITATION TO SKIN AND RESPIRATORY TRACT.

Label Precautions:

Avoid breathing dust.

Store in a tightly closed container.

Use with adequate ventilation.

Wash thoroughly after handling.

Do not get in eyes.

Avoid contact with skin and clothing.

Label First Aid:

In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately. If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention

16. Other Information

HMIS rating involves data interpretations that may vary from one company to another.

They are intended only for rapid, general identification of the magnitude. All the information contained in this MSDS must be considered.

As a part of good industrial and personal hygiene exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

During use avoid contact with eyes, skin clothing or by inhalation.

Wash thoroughly after handling.

When not in use keep in tightly closed container.

Status: Reviewed Reviewed By: PRP Review Date: 1/28/2008

DISCLAIMER:

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