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MSDS Number: **C5720** \* \* \* \* \* *Effective Date: 02/10/09* \* \* \* \* \* *Supersedes: 04/12/06*

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**MSDS MATERIAL SAFETY DATA SHEET****CHEMTREC:** 800-424-9300 (USA)

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703-527-3887(Outside USA and Canada)

**CANUTEC:** 613-996-6666

**From:** Mallinckrodt Baker, Inc  
222 Red School Lane  
Phillipsburg, NJ 08865

NOTE: Use CHEMTREC and CANUTEC  
phone numbers only in the event  
of a chemical emergency.

Emergency Telephone Number: 908-859-2151

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

**MALLINCKRODT****J. T. BAKER**


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## Crystal Violet (C.I. 42555)

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### 1. Product Identification

**Synonyms:** C.I. 42555; Gentian Violet; Hexamethyl-p-Rosaniline Chloride; Basic Violet 3**CAS No.:** 548-62-9**Molecular Weight:** 408**Chemical Formula:** [(CH<sub>3</sub>)<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>]<sub>2</sub>C:C<sub>6</sub>H<sub>4</sub>:N(CH<sub>3</sub>)<sub>2</sub>Cl**Product Codes:**

J.T. Baker: F906, F907

Mallinckrodt: E062

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Hexamethyl-p-rosaniline 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.**

**SAF-T-DATA<sup>(tm)</sup>** 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 &amp; SHIELD; LAB COAT &amp; 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.

**Eye Contact:**

Causes severe irritation. Contact may cause permanent eye damage.

**Chronic Exposure:**

No information found.

**Aggravation of Pre-existing Conditions:**

No information found.

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## 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.

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## 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.

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## 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.

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## 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.

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## 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.

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## 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.

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## 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.

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## 11. Toxicological Information

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

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Hexamethyl-p-rosaniline Chloride (548-62-9)	No	No	None

## 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\-----				
Ingredient	Korea	--Canada--		Phil.
		DSL	NDSL	
Hexamethyl-p-rosaniline Chloride (548-62-9)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302-		-----SARA 313-----	
	RQ	TPQ	List	Chemical Catg.
Hexamethyl-p-rosaniline Chloride (548-62-9)	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----			
Ingredient	CERCLA	-RCRA-	-TSCA-
		261.33	8(d)
Hexamethyl-p-rosaniline Chloride (548-62-9)	No	No	No

Chemical Weapons Convention: No    TSCA 12(b): No    CDTA: No  
 SARA 311/312: Acute: Yes    Chronic: No    Fire: No    Pressure: No  
 Reactivity: No    (Pure / Solid)

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 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 if irritation develops.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

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**Prepared by:** Environmental Health & Safety

Phone Number: (314) 654-1600 (U.S.A.)