



Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name	HARLECO® Crystal Violet	Product Code	192
Manufacturer	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	Effective Date	12/22/2004
		Print Date	12/22/2004

For More Information Call

856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call

800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Synonym	Basic Violet 3
Material Uses	Analytical reagent.
Chemical Family	Organic Dye.

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Zinc	7440-66-6	0-5
C.I. Basic Violet 1	548-62-9	95-100
Michler's Ketone	90-94-8	0.2

Section 3. Hazards Identification

Physical State and Appearance	Solid. (Crystalline powder)
Emergency Overview	WARNING !POISON ! CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE EYE INJURY. CANCER HAZARD CONTAINS MATERIAL WHICH CAN CAUSE CANCER CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: SKIN. WARNING: This product contains a chemical(s) known to the State of California to cause cancer.
Routes of Entry	Inhalation. Ingestion.
Potential Acute Health Effects	<p>Eyes Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. MAY CAUSE EYE INJURY.</p> <p>Skin Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.</p> <p>Inhalation Hazardous in case of inhalation (lung irritant).</p> <p>Ingestion May be hazardous in case of ingestion. Do not ingest.</p>

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Potential Chronic Health Effects

Carcinogenic Effects Classified 1 (Known To Be Human Carcinogens.) by NTP [Michler's Ketone].

Additional information See Toxicological Information (section 11)

**Medical Conditions
Aggravated by
Overexposure:**

Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 5. Fire Fighting Measures

Flammability of the Product	Non-flammable.
Auto-ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not applicable.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	<p>Risks of explosion of the product in presence of static discharge: Slightly explosive in presence of open flames, sparks and static discharge.</p> <p>Risks of explosion of the product in presence of mechanical impact: Slightly explosive in presence of shocks.</p>
Fire Fighting Media and Instructions	Use DRY chemicals, CO ₂ , water spray or foam.
Protective Clothing (Fire)	Wear suitable protective clothing.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Dust can combine with air to form an explosive mixture Thermal decomposition may release toxic and/or hazardous gases.

Section 6. Accidental Release Measures

Small Spill and Leak	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill and Leak	Use a shovel to put the material into a convenient waste disposal container. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
Spill Kit Information	No specific spill kit required for this product.

Section 7. Handling and Storage

Handling	Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep in a well-ventilated place.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
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Personal Protection**Eyes** Splash goggles.**Body** Lab coat.**Respiratory** Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.**Hands** Gloves.**Feet** Not applicable.**Protective Clothing (Pictograms)**

Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
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Product Name

Zinc

C.I. Basic Violet 1
Michler's Ketone**Exposure Limits**

SUVA (Switzerland, 1997). Skin
 Kurzzeitgrenzwerte: 0.2 mg/m³ 15 minute(s).
 MAK: 0.1 mg/m³ 8 hour(s).
 Not available.
 Not available.

Section 9. Physical and Chemical Properties

Odor	Odorless.
Color	Dark Green
Physical State and Appearance	Solid. (Crystalline powder)
Molecular Weight	Not applicable.
Molecular Formula	C ₂₅ H ₃₀ N ₃ Cl
pH	Not available.

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Boiling/Condensation Point	Decomposition temperature: 215°C (419°F)
Melting/Freezing Point	419.85°C (787.7°F) based on data for: Zinc.
Specific Gravity	The only known value is 7.14 (Water = 1) (Zinc).
Vapor Pressure	Not available.
Vapor Density	Not available.
Odor Threshold	Not available.
Evaporation Rate	Not available.
LogK_{ow}	Not available.
Solubility	Soluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Reactive with oxidizing agents, acids.
Rem/Incompatibility	Not available.
Hazardous Decomposition Products	These products are CO _x ,NO _x ,HCl
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

RTECS Number:	Zinc c.i. basic violet 1 Michler's Ketone	ZG8600000 BO9000000 DJ0250000
Toxicity	Acute oral toxicity (LD ₅₀): 96 mg/kg [Mouse]. (C.I. Basic Violet 1).	
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified 1 (Known To Be Human Carcinogens.) by NTP [Michler's Ketone].	
Acute Effects on Humans	Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Hazardous in case of inhalation (lung irritant). May be hazardous in case of ingestion.	

Special Remarks on Other Toxic Effects on Humans Irritating to mucous membranes.

Synergetic Products (Toxicologically)	Not available.
Irritancy	<u>Draize Test:</u> Not available.
Sensitization	Not available.
Carcinogenic Effects	Classified 1 (Known To Be Human Carcinogens.) by NTP [Michler's Ketone].
Toxicity to Reproductive System	Not available.
Teratogenic Effects	Not available.
Mutagenic Effects	Not available.

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Section 12. Ecological Information

Ecotoxicity Not available.

BOD5 and COD Not available.

Toxicity of the Products of Biodegradation The products of degradation are as toxic as the product itself.

Section 13. Disposal Considerations

EPA Waste Number Not available.

Treatment Material does not have an EPA Waste number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished.
ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS. Always contact permitted waste disposer (TSD) to assure compliance with all Current local, State and Federal Regulations.

+ Section 14. Transport Information

DOT Classification Proper Shipping Name: TOXIC SOLID, ORGANIC, N.O.S. (GENTIAN VIOLET)
Hazard Class: 6.1
UN number: UN2811
Packing Group: III
RQ: Not applicable.



TDG Classification Not available.

IMO/IMDG Classification Not available.

ICAO/IATA Classification Not available.

Section 15. Regulatory Information

U.S. Federal Regulations TSCA 8(b) inventory: Zinc; C.I. Basic Violet 1; Michler's Ketone
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Zinc; C.I. Basic Violet 1; Michler's Ketone
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Zinc: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; C.I. Basic Violet 1: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Michler's Ketone: Delayed (Chronic) Health Hazard
SARA 313 toxic chemical notification and release reporting: Zinc 2.5%; Michler's Ketone 0.2%
Clean Water Act (CWA) 307: Zinc
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 accidental release prevention: No products were found.
Clean air act (CAA) 112 regulated flammable substances: No products were found.
Clean air act (CAA) 112 regulated toxic substances: No products were found.

WHMIS (Canada) Class D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).
Class D-1B: Material causing immediate and serious toxic effects (TOXIC).

CEPA DSL: Zinc; C.I. Basic Violet 1; Michler's Ketone

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

International Regulations

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EINECS	Zinc	231-175-3	
	C.I. Basic Violet 1		208-953-6
	Michler's Ketone		202-027-5

DSCL (EEC) R22- Harmful if swallowed.
R36/37/38- Irritating to eyes, respiratory system and skin.

International Lists Australia (NICNAS): Zinc; C.I. Basic Violet 1; Michler's Ketone

China: C.I. Basic Violet 1; Michler's Ketone

Japan (MITI): C.I. Basic Violet 1; Michler's Ketone

Korea (TCCL): Zinc; C.I. Basic Violet 1; Michler's Ketone

Philippines (RA6969): Zinc; C.I. Basic Violet 1; Michler's Ketone
China: C.I. Basic Violet 1; Michler's Ketone

State Regulations Pennsylvania RTK: Zinc: (environmental hazard, generic environmental hazard); Michler's Ketone: (special hazard, environmental hazard, generic environmental hazard)
Massachusetts RTK: Zinc; Michler's Ketone
New Jersey: Crystal Violet
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Michler's Ketone
California prop. 65 (no significant risk level): Michler's Ketone
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Michler's Ketone

Section 16. Other Information

**National Fire
Protection
Association
(U.S.A.)**



Changed Since Last Revision **+**

Notice to Reader

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