



Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name Gentian Violet, HARLECO ® , Certified Biological Stain, For Microbiology **Product Code** 227

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 1/24/2005
Print Date 1/24/2005

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 |
|---------------------|-----------|-------------|
| Crystal Violet | 548-62-9 | 90 |
| Zinc | 7440-66-6 | 1 |
| Michler's Ketone | 90-94-8 | 0.2 |
| Paraffin Oil, White | 8042-47-5 | 3 |

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

Eyes Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. MAY CAUSE EYE INJURY.

Skin Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation Hazardous in case of inhalation (lung irritant).

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Ingestion May be hazardous in case of ingestion. Do not ingest.

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**

Risks of explosion of the product in presence of static discharge:
Slightly explosive in presence of open flames, sparks and static discharge.

Risks of explosion of the product in presence of mechanical impact:
Slightly explosive in presence of shocks.

**Fire Fighting Media
and Instructions**

Use DRY chemicals, CO2, 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

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| 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

| | |
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| 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

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| 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. |
|-----------------------------|---|

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)



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| 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. |
|---|--|

Product Name

Crystal Violet
Zinc

Exposure Limits

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

Michler's Ketone
Paraffin Oil, White

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. |
| 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

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| 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. | |

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| 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. |

Section 12. Ecological Information

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|---------------------|----------------|
| 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

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|-------------------------|--|
| 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

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

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.