



Crystal Violet Powder MSDS

Effective Date: August 6, 2013

24 Hour Emergency Contact:

ChemTel: (800)255-3924

www.pioneerforensics.com

1. PRODUCT AND COMPANY IDENTIFICATION

Product:	Crystal Violet Powder
Product Number(s):	PF020
CAS#:	548-62-9
Synonyms:	Gentian Violet; Basic Violet 3; Methyl Violet 10B; Aizen Crystal Violet; Bismuth Violet; Hexamethyl-p-rosaniline Chloride
Manufacturer:	Pioneer Forensics, LLC 804 E. Eisenhower Blvd. Loveland, CO 80537 Ph: (970) 292-8487
Emergency Number:	(800) 255-3924 (CHEM-TEL)
Customer Service:	(970) 292-8487

2. HAZARDS IDENTIFICATION

Emergency Overview: HARMFUL IF INGESTED OR EXPOSED TO THE EYES. MAY BE HARMFUL IF INHALED OR ABSORBED THROUGH THE SKIN.

Safety Ratings: Health: 3, Severe Reactivity: 1, Slight
Flammability: 3, Severe Contact: 3, Severe

OSHA Regulatory Status: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential Acute Health Effects:

Routes of Exposure: Inhalation, ingestion, skin contact, eye contact

Inhalation: May cause irritation of respiratory tract.

Ingestion: Toxic if swallowed.

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

Eye Contact: Causes eye irritation. May cause permanent eye damage.

Target Organs and Symptoms: Skin, lungs, mucous membranes, gastrointestinal tract, eyes. Irritation, nausea, vomiting, diarrhea, abdominal pain, blood pressure rise, weight loss.

Chronic Health Effects: Prolonged or repeated exposure may cause cancer.

Potential Environmental Effects:

This product is harmful to aquatic life and can have long term effects.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS#</u>	<u>Chemical Formula</u>	<u>Formula Weight</u>	<u>Hazardous</u>	<u>% by Weight</u>
Crystal Violet	548-62-9	C ₂₅ H ₃₀ N ₃ Cl	407.99	Yes	100

4. FIRST AID MEASURES

First Aid Procedures:

- Inhalation:** Remove to fresh air. If breathing is difficult, administer oxygen. If the victim is not breathing, provide artificial respiration. Get medical attention.
- Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. GET MEDICAL ATTENTION IMMEDIATELY.
- Skin Contact:** Wash affected area with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.
- Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention.

General Advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

Notes to Physician: Treat symptomatically. Monitor for possible nitrite intoxication. Symptoms may be delayed.

5. FIRE FIGHTING MEASURES

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

Flammable Properties: May be combustible at high temperatures.

Flash Point: No information found

Auto-ignition Temp: No information found

Flammable Limits in Air (% by volume): Lower Explosion Limit: No information found
Upper Explosion Limit: No information found

Suitable Extinguishing Media: Water spray, dry powder, alcohol resistant foam, carbon dioxide

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Hazardous Combustion Products: Carbon oxides, nitrogen oxides, hydrochloric acid

Specific Hazards:	May be flammable or explosive in the presence of heat, flames, and sparks. High powder concentrations in air may cause an explosion hazard.
Special Protective Equipment For Firefighters:	As in any fire, wear MSHA/NIOSH approved (or equivalent) self-contained positive pressure or pressure-demand breathing apparatus and full protective gear.
Specific Methods:	Use water spray to cool unopened containers. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion, do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Ventilate area of leak or spill. Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Wear appropriate personal protective equipment as specified in the Exposure Control and Personal Protection Section 8. Avoid generation of dust in the surrounding air. Avoid contact with eyes, skin, and clothing.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses, or onto the ground.
Methods for Containment:	Prevent entry into waterways, sewer, basements or confined areas. Dike the spilled material, where this is possible.
Methods for Cleaning Up:	Absorb spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, fleece), and place in a non-combustible container for reclamation or disposal. Clean contaminated surface thoroughly. Never return spills in original containers for re-use. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling:	Do not handle or open near flame, sources of heat, or sources of ignition. Wear personal protective equipment (see section 8). Provide sufficient air exchange and/or exhaust in work rooms. Avoid contact with skin, eyes and clothing. Do not ingest. When using, do not smoke. Keep away from incompatible materials. Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty since they retain product residues. Observe all warnings and precautions listed for the product.
Storage:	Store in a cool, dry, ventilated area away from flame, sources of ignition, heat, and incompatible materials. Store in a segregated and approved area if possible. Store in original container. Keep containers tightly closed and upright. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure Limits:	No information found
Engineering Controls:	Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Personal Protective Equipment:	
Eye/Face Protection:	Wear goggles or safety glasses with side shields and a face shield.

Skin Protection:	Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.
Respiratory Protection:	Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are not known, or in any other circumstances where air-purifying respirators may not provide adequate protection.
General Hygiene Considerations:	Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance:	Lustrous, crystalline powder
Color:	Dark green
Odor:	Slight characteristic
Molecular Formula:	$C_{25}H_{30}N_3Cl$
Molecular Weight:	407.99
pH:	2.5 - 3.5 (1% w/v aqueous solution at 20 °C)
Specific Gravity:	1.19
Freezing/Melting Point:	215 °C (419 °F)
Boiling Point:	No information found
Flash Point:	No information found
Auto Ignition Temperature:	No information found
Flammable Limits in Air (% by Volume):	
Upper:	No information found
Lower:	No information found
Solubility:	50 g/L aqueous at 27 °C
Vapor Pressure:	No information found
Vapor Density:	No information found
Percent Volatile:	0 % at 21 °C (70 °F)
Odor threshold (ppm):	No information found
Evaporation Rate:	No information found
Partition Coefficient (n-octanol/water):	1.172 at 25 °C (77 °F)

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat, flames, dust generation, incompatibles
Incompatible Materials:	Strong acids, oxidizing agents, reducing agents
Hazardous Decomposition Products:	Carbon oxides, nitrogen oxides, hydrochloric acid
Possibility of Hazardous Reactions:	Thermal decomposition or exposure to incompatible materials may yield hazardous decomposition products.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological Data:	Oral Rat LD50: 420 mg/kg Oral Mouse LD50: 96 mg/kg Oral Rabbit LD50: 150 mg/kg
Acute Effects:	Harmful if ingested or exposed to the eyes. Hazardous if inhaled or absorbed through the skin.
Local Effects:	Causes eye, skin, and respiratory tract, and gastrointestinal tract irritation. May cause nausea, vomiting, diarrhea, abdominal pain, blood pressure rise, and respiratory paralysis if swallowed. May cause permanent eye damage if exposed to eyes.
Sensitization:	No information found
Chronic Effects:	Prolonged or repeated exposure may cause peritonitis, weight loss, cancer, adverse genetic material effects, adverse reproductive effects, and birth defects.
Carcinogenic Effects:	May cause cancer based on animal data. This product is not classified as a human carcinogen by IARC, ACGIH, NTP, or OSHA.
Skin Corrosion/Irritation:	Causes skin irritation.
Epidemiology:	No information found
Mutagenicity:	Mutagenic for various human and mammalian cells and bacteria/yeast.
Neurological Effects:	No information found
Reproductive Effects:	May cause adverse reproductive effects based on animal data.
Teratogenic Effects:	May cause birth defects based on animal data.
Target Organs:	Skin, lungs, mucous membranes, gastrointestinal tract, eyes.

12. ECOLOGICAL INFORMATION

Ecotoxicological Data:	EC50 Water flea (<i>Daphnia magna</i>): 5 mg/L 48 H EC50 Algae (<i>Pseudokirchneriella subcapitata</i>): 0.8 mg/L 72 H
Ecotoxicity:	Dangerous to the environment. Harmful to aquatic life.
Environmental Effects:	May cause long term adverse effects in the aquatic environment.
Persistence and Degradability:	Not readily biodegradable. Products of biodegradation are not likely, but are as toxic as the product itself.
Partition Coefficient (n-octanol/water):	1.172 at 25 °C (77 °F)

13. DISPOSAL INFORMATION

Disposal Instructions:	All wastes must be handled in accordance with local, state and federal regulations.
Contaminated Packaging:	Since emptied containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

Waste Codes: No information found

14. TRANSPORT INFORMATION

DOT: Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: Crystal Violet

U.S. EPCRA (SARA Title III):

Sections 311/312:	<u>Hazard Categories</u>	<u>List (Yes/No)</u>
	Section 311 – Hazardous Chemical	Yes
	Immediate Hazard	Yes
	Delayed Hazard	Yes
	Fire Hazard	No
	Pressure Hazard	No
	Reactivity Hazard	No

Section 313: Not listed

CERCLA: No information found

International Inventories:	<u>Country(s) or Region</u>	<u>Inventory Name</u>	<u>On Inventory (Yes/No)*</u>
	Australia	Australian Inventory of Chemical Substances (AICS)	Yes
	Canada	Domestic Substances List (DSL)	Yes
	Canada	Non-Domestic Substances List (NDSL)	No
	China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
	Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
	Europe	European List of Notified Chemical Substances (ELINCS)	No
	Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
	Korea	Existing Chemicals List (ECL)	Yes
	New Zealand	New Zealand Inventory	No
	Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s)

16. OTHER INFORMATION

Product Use: Laboratory and/or field reagent

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Reason for Revision: Not applicable