



## Material Safety Data Sheet Crystal Violet, 1% in Acetic Acid

### Section 1 - Chemical Product and Company Identification

**MSDS Name:**

Crystal Violet, 1% in Acetic Acid

**Catalog Numbers:**

LC13541

**Synonyms:**

None

**Company Identification:**

LabChem Inc  
200 William Pitt Way  
Pittsburgh, PA 15238

**Company Phone Number:**

(412) 826-5230

**Emergency Phone Number:**

(800) 424-9300

**CHEMTREC Phone Number:**

(800) 424-9300

### Section 2 – Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
548-62-9	Crystal Violet	1
64-19-7	Acetic Acid	99

### Section 3 - Hazards Identification

#### Emergency Overview

**Appearance:** *Dark purple solution*

**Danger!** Corrosive. Combustible. May cause respiratory tract irritation. May cause eye and skin irritation or burns. May cause digestive tract irritation with nausea, vomiting, and diarrhea. May cause reproductive or fetal effects. Flash Point: 104°F.

**Target Organs:** *None.*

#### Potential Health Effects

**Eye:**

Eye contact may result in swelling, irritation, and damage to the cornea and conjunctiva, resulting in blurred or partial loss of vision.

**Skin:**

Skin contact may result in irritation, pain, burns, blisters, and brown or yellow stains.

**Ingestion:**

Ingestion may result in severe burns of the mouth, throat, and stomach, vomiting and diarrhea of dark blood. Asphyxia from throat swelling can occur. Perforations of the esophagus and stomach can occur.



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### **Inhalation:**

50 ppm causes irritation to most individuals. Respiratory irritation, coughing, choking, headache, dizziness, and weakness can occur. Delayed symptoms include lung fluid, chest pains, frothy sputum, cyanosis, rales and hypotension.

### **Chronic:**

May cause dermatitis and conjunctivitis. Dental erosion, tooth discolorization, jaw necrosis, nasal ulceration, laryngitis, bronchitis, pneumonia and gastrointestinal disturbances can occur.

## Section 4 - First Aid Measures

### **Eyes:**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids until no evidence of chemical remains. Cover burns with loose, sterile, non-medicated bandages. Get medical aid at once.

### **Skin:**

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover burns with a dry sterile bandage (secure, not tight). Wash clothing before reuse.

### **Ingestion:**

Call a poison control center. Do not induce vomiting, and get medical aid immediately. If victim is conscious and alert, give 2-4 cupfuls of milk or water to dilute acid. Never give anything by mouth to an unconscious person.

### **Inhalation:**

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

### **Notes to Physician:**

Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

### **General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Move container if possible, cool with flooding amounts of water. Avoid breathing corrosive vapors, knock down with water spray. Vapors are heavier than air and may travel considerable distance and flash back from source of ignition.

### **Extinguishing Media:**

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

### **Autoignition Temperature:**

867°F (464°C)

### **Flash Point:**

104°F (40°C)

### **NFPA Rating:**

CAS# 548-62-9: health-2; flammability-0; instability-0

CAS# 64-19-7: health-3; flammability-2; instability-0

### **Explosion Limits:**

Lower: 5.4      Upper: 16



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### Section 6 - Accidental Release Measures

**General Information:**

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

Absorb spill with an alkaline material such as soda ash or lime. Place in labeled plastic containers for disposal. Wash area down with water.

### Section 7 - Handling and Storage

**Handling:**

Wash thoroughly after handling. Use only in a well ventilated area. Avoid prolonged or repeated contact with skin.

**Storage:**

Store in cool, dry area away from heat and oxidizers. Do not store in direct sunlight.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits:**

Chemical Name:	ACGIH	NIOSH	OSHA
Crystal violet	none listed	none listed	none listed
Acetic acid	10 ppm TWA; 25 mg/m <sup>3</sup> TWA	10 ppm TWA; 25 mg/m <sup>3</sup> TWA	10 ppm TWA; 15 ppm STEL

**OSHA Vacated PELs:**

Acetic acid: 10 ppm TWA; 25 mg/m<sup>3</sup> TWA

**Personal Protective Equipment****Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:**

Wear appropriate gloves to prevent skin exposure.

**Clothing:**

Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.



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### Section 9 - Physical and Chemical Properties

<b>Physical State:</b>	Liquid
<b>Color:</b>	Dark purple
<b>Odor:</b>	Pungent vinegar odor
<b>pH:</b>	Strongly acidic
<b>Vapor Pressure:</b>	11 mm Hg @20°C
<b>Vapor Density:</b>	2.1
<b>Evaporation Rate:</b>	0.97 (BuOAc = 1)
<b>Viscosity:</b>	Not available
<b>Boiling Point:</b>	244°F (118°C)
<b>Freezing/Melting Point:</b>	62°F (17°C)
<b>Decomposition Temperature:</b>	Not available
<b>Solubility in water:</b>	Miscible
<b>Specific Gravity/Density:</b>	1.04
<b>Molecular Formula:</b>	Not applicable
<b>Molecular Weight:</b>	Not applicable

### Section 10 - Stability and Reactivity

**Chemical Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**

Metals, oxidizers.

**Incompatibilities with Other Materials:**

Strong oxidizers, chromic acid, chromic anhydride, nitric acid, perchloric acid, permanganates, sodium peroxide, potassium hydroxide, hydrogen peroxides, acid anhydrides.

**Hazardous Decomposition Products:**

Oxides of carbon, hydrogen chloride, nitrogen oxides.

**Hazardous Polymerization:**

Has not been reported.

### Section 11- Toxicological Information

**RTECS:**

CAS# 548-62-9: BO9000000.

CAS# 64-19-7: AF1225000.

**LD50/LC50:**

CAS# 548-62-9:

Oral, mouse: LD50 = 96 mg/kg

Oral, rabbit: LD50 = 150 mg/kg

Oral, rat: LD50 = 420 mg/kg

CAS# 64-19-7:

Inhalation, mouse: LC50 = 5620 ppm/1H

Oral, rat: LD50 = 3310 mg/kg

Skin, rabbit: LD50 = 1060 mg/kg



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### **Carcinogenicity:**

CAS# 548-62-9: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 64-19-7: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

### **Epidemiology:**

Severe eye, mucous membrane and skin irritant, skin sensitizer.

### **Teratogenicity:**

Crystal violet: Embryo or Fetus: Stunted fetus, oral-rabbit TDLo = 7 mg/kg. Specific

Developmental Abnormalities: Musculoskeletal, oral-rat TDLo = 100 mg/kg.

### **Reproductive:**

Fertility: Post-implantation mortality, oral-rat TDLo = 40 mg/kg.

### **Mutagenicity:**

Refer to RTECS# BO9000000 for specific information.

### **Neurotoxicity:**

No information available.

## Section 12 - Ecological Information

No information found

## Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

## Section 14 - Transport Information

### **US DOT**

**Shipping Name:** Acetic acid >80%

**Hazard Class:** 8 (3)

**UN Number:** UN2789

**Packing Group:** PG II

## Section 15 - Regulatory Information

### **US Federal**

#### **TSCA:**

CAS# 548-62-9 is listed on the TSCA inventory.

CAS# 64-19-7 is listed on the TSCA inventory.

#### **SARA Reportable Quantities (RQ):**

CAS# 64-19-7: final RQ = 5000 pounds (2270 kg)

#### **CERCLA/SARA Section 313:**

None of the components are on this list.

#### **OSHA - Highly Hazardous:**

None of the chemicals in this product are considered highly hazardous by OSHA.



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### US State

#### State Right to Know:

Acetic acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

#### California Regulations:

None.

### European/International Regulations

#### Canadian DSL/NDSL:

CAS# 548-62-9 is listed on Canada's DSL List.

CAS# 64-19-7 is listed on Canada's DSL List.

#### Canada Ingredient Disclosure List:

CAS# 548-62-9 is listed on the Canadian Ingredient Disclosure List.

CAS# 64-19-7 is listed on the Canadian Ingredient Disclosure List.

## Section 16 - Other Information

MSDS Creation Date: July 6, 1998

Revision Date: October 7, 2009

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