

Date Prepared: 03/26/2014

Reviewed On: 03/26/2014

**1 Identification**

- **Product Identifier**
- **Product Name:** Gram Crystal Violet
- **Catalog Number:** 212525
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** *In-vitro Diagnostics*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 – 8663  
Email Address: [Technical\\_Services@bd.com](mailto:Technical_Services@bd.com)
- **Information Department:** Technical Service
- **Emergency telephone number:**  
In case of a chemical emergency, spill, fire, exposure, or accident, contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Hazard(s) identification**

- **Classification of the substance or mixture**

GHS07

Acute Tox. 4      H332 Harmful if inhaled.

Aquatic Chronic 3      H412 Harmful to aquatic life with long lasting effects.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xn; Harmful

R40:      Limited evidence of a carcinogenic effect.

R52/53:      Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**

GHS07

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- **Signal word** Warning
- **Hazard-determining components of labeling:**  
methanol
- **Hazard statements**  
H332 Harmful if inhaled.  
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P271 Use only outdoors or in a well-ventilated area.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **NFPA ratings (scale 0-4)**


 Health = 2  
 Flammability = 2  
 Reactivity = 0

- **HMIS ratings (scale 0-4)**


 HEALTH 2 Health = 2  
 FIRE 2 Flammability = 2  
 REACTIVITY 0 Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **Identification number(s):**
- **EC number:** 2089536
- **Chemical characterization: Mixture**
- **Description:** Mixture consisting of the following components.

- **Dangerous Components:**

CAS: 67-63-0 EINECS: 200-661-7	isopropanol	Xi R36; F R11 R67	5.0%
CAS: 67-56-1 EINECS: 200-659-6	methanol	T R23/24/25-39/23/24/25; F R11	2.4%

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CAS: 64-17-5 EINECS: 200-578-6	ethanol	F R10	2.4%
CAS: 548-62-9 EINECS: 208-953-6	C.I. Basic Violet 3	Xn R22-40; Xi R41; N R50/53 Carc. Cat. 3	0.4%

· **Additional information** Risk phrases refer to section 15.**4 First-aid measures**· **Description of first aid measures**· **General information**

Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.

· **After inhalation** Supply fresh air; consult doctor in case of complaints.· **After skin contact** Immediately wash with water and soap and rinse thoroughly.· **After eye contact**

Rinse opened eye for 15 minutes under running water. Then consult a doctor.

· **After swallowing** Immediately call a doctor.· **Information for doctor** Show this product label or this MSDS.· **Most important symptoms and effects, both acute and delayed**

Dizziness

Headache

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**5 Fire-fighting measures**· **Extinguishing media**· **Suitable extinguishing agents**

CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture**

No further relevant information available.

· **Advice for firefighters**· **Protective equipment:** No special measures required.**6 Accidental release measures**· **Personal precautions, protective equipment and emergency procedures** Not required.· **Environmental precautions:** Wipe up with damp sponge or mop.· **Methods and material for containment and cleaning up:**

Absorb liquid components with liquid-binding material.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

## 7 Handling and storage

- **Handling**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 15 - 30 °C
- **Information about storage in one common storage facility:**  
Store away from oxidizing agents.  
Do not store together with acids.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed containers.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:**  
No further data; see Section 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

**67-63-0 isopropanol**

PEL	980 mg/m <sup>3</sup> , 400 ppm
REL	Short-term value: 1225 mg/m <sup>3</sup> , 500 ppm Long-term value: 980 mg/m <sup>3</sup> , 400 ppm
TLV	Short-term value: 984 mg/m <sup>3</sup> , 400 ppm Long-term value: 492 mg/m <sup>3</sup> , 200 ppm

**67-56-1 methanol**

PEL	260 mg/m <sup>3</sup> , 200 ppm
REL	Short-term value: 325 mg/m <sup>3</sup> , 250 ppm Long-term value: 260 mg/m <sup>3</sup> , 200 ppm Skin
TLV	Short-term value: 328 mg/m <sup>3</sup> , 250 ppm Long-term value: 262 mg/m <sup>3</sup> , 200 ppm Skin; BEI

**64-17-5 ethanol**

PEL	1900 mg/m <sup>3</sup> , 1000 ppm
REL	1900 mg/m <sup>3</sup> , 1000 ppm

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TLV	1880 mg/m <sup>3</sup> , 1000 ppm
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· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal Protective Equipment**

· **General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.

· **Protection of hands:**

Chemical resistant gloves (i.e. nitrile, or equivalent).

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing (lab coat).

### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

**Form:** Liquid

**Color:** Purple

· **Odor:** Characteristic

· **pH-value:** Not applicable

· **Change in condition**

**Melting point/Melting range:** Not determined

**Boiling point/Boiling range:** Not determined

· **Flash point:** 43 °C (109 °F)

· **Auto igniting:** Product is not self igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Solubility in / Miscibility with**

**Water:** Slightly soluble

· **Solvent content:**

**Organic solvents:** 9.8 %

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 · **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Incompatible materials: strong acids and oxidizers.
- **Hazardous decomposition products:**  
Nitrogen oxides (NOx)  
Carbon monoxide (CO) and carbon dioxide (CO2)  
Ammonia (NH4)

**11 Toxicological information**

- **Information on toxicological effects**
  - **Acute toxicity:**
  - **LD/LC50 values that are relevant for classification:**
- |                                     |      |                                      |
|-------------------------------------|------|--------------------------------------|
| <b>64-17-5 ethanol</b>              |      |                                      |
| Oral                                | LD50 | 3450 mg/kg (MOU)<br>7060 mg/kg (rat) |
| <b>548-62-9 C.I. Basic Violet 3</b> |      |                                      |
| Oral                                | LD50 | 96 mg/kg (mou)                       |
- **Primary irritant effect:**
  - **on the skin:** No irritating effect.
  - **on the eye:** No irritating effect.
  - **Sensitization:** No sensitizing effects known.
  - **Subacute to chronic toxicity:** Target organs: thyroid, kidney, ureter or bladder tumors.
  - **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:

 · **Carcinogenic categories**

 · **IARC (International Agency for Research on Cancer)**

67-63-0	isopropanol	3
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 · **NTP (National Toxicology Program)**

None of the ingredients is listed.

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**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:** This material is not expected to be toxic to aquatic life.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Other information:**  
 The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **Additional ecological information:**
- **General notes:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
 Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.  
 This product is not considered a RCRA hazardous waste.  
 Must not be disposed of with solid waste.
- **Uncleaned packagings:**
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- |                                     |      |
|-------------------------------------|------|
| · <b>UN-Number</b>                  |      |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>  | Void |
| · <b>UN proper shipping name</b>    |      |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>  | Void |
| · <b>Transport hazard class(es)</b> |      |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>  |      |
| · <b>Class</b>                      | Void |

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· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	If a "void" appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.
· <b>UN "Model Regulation":</b>	-

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

67-63-0 isopropanol

67-56-1 methanol

64-17-5 ethanol

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

64-17-5 ethanol

· **Carcinogenic categories**

· **TLV (Threshold Limit Value established by ACGIH)**

67-63-0 isopropanol

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64-17-5 ethanol

A4

**· GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**· Hazard pictograms**

GHS07

**· Signal word** Warning**· Hazard-determining components of labeling:**

methanol

**· Hazard statements**

H332 Harmful if inhaled.

H412 Harmful to aquatic life with long lasting effects.

**· Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P271 Use only outdoors or in a well-ventilated area.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other information**

To the best of our knowledge, the information contained herein is accurate. However, neither Becton, Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.

**· Department issuing MSDS:**

Environmental, Health &amp; Safety

Created by Michael J. Spinazzola

**· Contact:** Technical Service Representative**· Date of preparation / last revision** 03/26/2014 / -**· Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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*IMDG: International Maritime Code for Dangerous Goods*  
*DOT: US Department of Transportation*  
*IATA: International Air Transport Association*  
*ACGIH: American Conference of Governmental Industrial Hygienists*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*NFPA: National Fire Protection Association (USA)*  
*HMIS: Hazardous Materials Identification System (USA)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*Acute Tox. 4: Acute toxicity, Hazard Category 4*  
*Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3*

US