

Material Safety Data Sheet

acc. to ISO/DIS 11014

Date Prepared: 03/18/2017

Reviewed On: 11/30/2015

1 Identification

- **Product Identifier:**
- **Product Name:** Gram Crystal Violet
- **Catalog Number:** 212526
- **Application of the substance / the mixture** Laboratory Chemicals
- **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
- **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**



GHS08 Health hazard

Carcinogenicity – Category 2

H351 Suspected of causing cancer.



GHS07

Acute Toxicity (Inhalation) - Category 4 H332 Harmful if inhaled.

Aquatic Acute 3

H402 Harmful to aquatic life.

Aquatic Chronic 3

H412 Harmful to aquatic life with long lasting effects.

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Warning

(Contd. on page 2)

CA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Date Prepared: 03/18/2017

Reviewed On: 11/30/2015

Product Name: Gram Crystal Violet

(Contd. of page 1)

· **Hazard-determining components of labeling:**

methanol

ethanol

C.I. Basic Violet 3

· **Hazard statements**

H332 Harmful if inhaled.

H351 Suspected of causing cancer.

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

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

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

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

· **Classification system**

· **NFPA ratings (scale 0-4)**



Health = 2

Flammability = 0

Reactivity = 0

· **HMIS ratings (scale 0-4)**

HEALTH 2

Health = 2

FIRE 0

Flammability = 0

REACTIVITY 0

Reactivity = 0

3 Composition/information on ingredients

· **Chemical characterization: Mixture**

· **Description:** Mixture consisting of the following components.

· **Dangerous Components:**

(Contd. on page 3)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Date Prepared: 03/18/2017

Reviewed On: 11/30/2015

Product Name: Gram Crystal Violet

(Contd. of page 2)

67-63-0	isopropanol Flammable Liquids - Category 2, H225; Eye Irritation - Category 2A, H319; Specific Target Organ Toxicity - Single Exposure - Category 3, H336	5.0% w/w
67-56-1	methanol Flammable Liquids - Category 2, H225; Acute Toxicity (Oral) - Category 3, H301; Acute Toxicity (Dermal) – Category 3, H311; Acute Toxicity (Inhalation) - Category 3, H331; Specific Target Organ Toxicity - Single Exposure - Category 1, H370	2.4% w/w
64-17-5	ethanol Flammable Liquids - Category 2, H225	2.4% w/w
548-62-9	C.I. Basic Violet 3 Carcinogenicity – Category 2, H351; Serious Eye Damage - Category 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Toxicity (Oral) - Category 4, H302	0.4% w/w

· **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**
- **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

- **Suitable extinguishing agents**
CO2, 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.

(Contd. on page 4)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Date Prepared: 03/18/2017

Reviewed On: 11/30/2015

Product Name: Gram Crystal Violet

(Contd. of page 3)

- **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.
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:** No special requirements.
- **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

EL (Canada (English))	Short-term value: 500 ppm Long-term value: 400 ppm Skin
-----------------------	---

(Contd. on page 5)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Date Prepared: 03/18/2017

Reviewed On: 11/30/2015

Product Name: Gram Crystal Violet

(Contd. of page 4)

PEL (USA) REL (USA) TLV (USA)	980 mg/m ³ , 400 ppm Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm
67-56-1 methanol	
EL (Canada (English)) PEL (USA) REL (USA) TLV (USA)	Short-term value: 250 ppm Long-term value: 200 ppm Skin 260 mg/m ³ , 200 ppm Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI
64-17-5 ethanol	
EL (Canada (English)) PEL (USA) REL (USA) TLV (USA)	1000 ppm 1900 mg/m ³ , 1000 ppm 1900 mg/m ³ , 1000 ppm 1880 mg/m ³ , 1000 ppm

· **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).

CA

(Contd. on page 6)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Date Prepared: 03/18/2017

Reviewed On: 11/30/2015

Product Name: Gram Crystal Violet

(Contd. of page 5)

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

10 Stability and reactivity

· Reactivity No further relevant information available.**· 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:** No further relevant information available.**· Hazardous decomposition products:**Nitrogen oxides (NO_x)Carbon monoxide (CO) and carbon dioxide (CO₂)Ammonia (NH₄)

CA

(Contd. on page 7)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Date Prepared: 03/18/2017

Reviewed On: 11/30/2015

Product Name: Gram Crystal Violet

(Contd. of page 6)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

548-62-9 C.I. Basic Violet 3

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.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:

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.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must adhere to official regulations.
Must not be disposed of with solid waste.

(Contd. on page 8)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Date Prepared: 03/18/2017

Reviewed On: 11/30/2015

Product Name: Gram Crystal Violet

(Contd. of page 7)

- **Uncleaned packagings:**
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT, ADN, IMDG, IATA** Void
- **UN proper shipping name**
- **DOT, ADN, IMDG, IATA** Void
- **Transport hazard class(es)**
- **DOT, ADN, IMDG, IATA**
- **Class** Void
- **Packing group**
- **DOT, IMDG, IATA** Void
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:** Not dangerous according to the above specifications.
- **UN "Model Regulation":** Void

15 Regulatory information

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

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

All ingredients are listed.

· **Canadian Substance Listing**

· **Canadian Domestic Substance List (DSL)**

7732-18-5 water

67-56-1 methanol

(Contd. on page 9)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Date Prepared: 03/18/2017

Reviewed On: 11/30/2015

Product Name: Gram Crystal Violet

(Contd. of page 8)

64-17-5	ethanol
548-62-9	C.I. Basic Violet 3

· **Canadian Ingredient Disclosure List (limit 0.1%)**

64-17-5	ethanol
548-62-9	C.I. Basic Violet 3

· **Canadian Ingredient Disclosure List (limit 1%)**

67-63-0	isopropanol
67-56-1	methanol

· **GHS label elements**

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

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labeling:**

methanol

ethanol

C.I. Basic Violet 3

· **Hazard statements**

H332 Harmful if inhaled.

H351 Suspected of causing cancer.

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

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

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

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.

CA

(Contd. on page 10)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Date Prepared: 03/18/2017

Reviewed On: 11/30/2015

Product Name: Gram Crystal Violet

(Contd. of page 9)

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 SDS:**

Environmental, Health & Safety
Created by Michael J. Spinazzola

· **Contact:** Technical Service Representative

· **Date of preparation / last revision** 03/18/2017 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
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