



1 Identification of substances:

Product name: Gram Crystal Violet
 Catalog number: 212526
 Manufacturer/Supplier:
 BD Diagnostic Systems
 7 Loveton Circle
 Sparks, MD 21152
 Tel: (410) 771-0100 or (800) 638-8663
 Information department: Technical Services

Emergency information:
 In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems at (410)771-0100 or (800)638-8663, or ChemTree at (800)424-9300.

2 Composition/Data on components:

Chemical characterization:
 Identification number(s):
 EINECS Number: 2089536
 Chemical characterization
 Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

67-63-0	isopropanol	5.0%
64-17-5	ethanol	2.4%
548-62-9	crystal violet	0.4%
67-56-1	methanol	2.4%

3 Hazards identification

Hazard description:



Xn Harmful

Information pertaining to particular dangers for man and environment
 R 40 Limited evidence of a carcinogenic effect.
 R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
 The classification system
 expanded upon from company and literature data.

NFPA ratings (scale 0-4)
 Health = 2
 Fire = 0
 Reactivity = 0

(Contd. on page 2)

(Contd. on page 3)



Product name: Gram Crystal Violet

(Contd. of page 1)

4 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.

The following symptoms may occur:
 Dizziness
 Headache

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.
 Protective equipment: No special measures required.

6 Accidental release measures:

Person-related safety precautions: Not required.
 Measures for environmental protection: Wipe up with damp sponge or mop.
 Measures for cleaning/collecting: Absorb liquid components with liquid-binding material.

7 Handling and storage:

Handling
 Information for safe handling: Ensure good ventilation/exhaustion at the workplace.
 Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.
 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.

8 Exposure controls and personal protection:

Additional information about design of technical systems: No further data; see item 7.

(Contd. on page 3)

USA





Product name: Gram Crystal Violet

Components with limit values that require monitoring at the workplace:

(Contd. of page 2)

67-63-0 Isopropanol	
PEL	980 mg/m ³ , 400 ppm
REL	Short-term value: 1225 mg/m ³ , 500 ppm
	Long-term value: 980 mg/m ³ , 400 ppm
TLV	Short-term value: 984 mg/m ³ , 400 ppm
	Long-term value: 492 mg/m ³ , 200 ppm
67-56-1 methanol	
PEL	360 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 230 ppm
	Long-term value: 260 mg/m ³ , 200 ppm
Skin	
TLV	Short-term value: 328 mg/m ³ , 230 ppm
	Long-term value: 262 mg/m ³ , 200 ppm
Skin	BEI
64-17-5 ethanol	
PEL	1900 mg/m ³ , 1000 ppm
REL	1900 mg/m ³ , 1000 ppm
TLV	1880 mg/m ³ , 1000 ppm

Additional information: The lists that were valid during the creation were used as basis.

- 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:

General Information	
Form:	Liquid
Color:	Purple
Odor:	Characteristic
Change in condition Melting point/Boiling range: Not determined Boiling point/Boiling range: Not determined	

(Contd. on page 4)
USA



Product name: Gram Crystal Violet

(Contd. of page 3)

Flash point:	Not applicable
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
pH-value:	Not applicable
Solvent content:	9.8 %
Organic solvents:	

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
- Materials to be avoided: Incompatible materials: strong acids and oxidizers.
- Dangerous products of decomposition:
Nitrogen oxides (NOx)
Carbon monoxide (CO) and carbon dioxide (CO2)
Ammonia (NH4)

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

64-17-5 ethanol	
Oral	LD50 3450 mg/kg (AQU)
	7060 mg/kg (rat)
548-62-9 crystal violet	
Oral	LD50 96 mg/kg (mou)
67-63-0 Isopropanol	
Oral	LD50 5045 mg/kg (rat)
Dermal	LD50 12800 mg/kg (rat)
67-56-1 methanol	
Oral	LD50 5628 mg/kg (rat)

- Primary irritant effect:
on the skin: Irritant to skin and mucous membranes.
on the eye: Irritating effect.
- Sensitization: No sensitizing effect known.
- Substance 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:

(Contd. on page 5)
USA



Printing date 08/03/2004

Reviewed on 11/24/2003

Product name: Gram Crystal Violet

Irritant

(Contd. of page 4)

12 Ecological information:

- Ecotoxicological effects:
· Aquatic toxicity:
This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are greater than 100 mg/l
- Other information:
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- General notes: Water hazard class 2 (Self-assessment): hazardous for water.

13 Disposal considerations

- Product:
· Recommendation
Must not be disposed of with solid waste.
Dispose of material in accordance with federal (40 CFR 261), state and local requirements.
This product is not considered a RCRA hazardous waste.
- Uncleaned packagings:
· Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- DOT regulations:
- Hazard class:
- Land transport ADR/RID (cross-border)
- ADR/RID class:
- Maritime transport IMDG:
- IMDG Class:
- Marine pollutant: No
- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class:

· **Transport/Additional information:**
If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation. However, if a Hazard Class Number is listed the product is regulated.

15 Regulations

- SARA Section 355 (extremely hazardous substances)

None of the ingredients is listed.

(Contd. on page 6)

USA



Printing date 08/03/2004

Reviewed on 11/24/2003

Product name: Gram Crystal Violet

(Contd. of page 5)

· SARA Section 313 (specific toxic chemical listings)

- 67-63-0 isopropanol
- 67-56-1 methanol
- TSCA (Toxic Substances Control Act)
- 67-63-0 isopropanol
- 67-56-1 methanol
- 64-17-5 ethanol
- 548-62-9 crystal violet
- California Proposition 65 - Chemicals known to cause cancer
None of the ingredients is listed.
- California Proposition 65 - Chemicals known to cause reproductive toxicity
None of the ingredients is listed.
- Carcinogenicity categories
- IARC (International Agency for Research on Cancer)
- 67-63-0 isopropanol 3
- NTP (National Toxicology Program)
None of the ingredients is listed.
- TLY (Threshold Limit Value established by ACGIH)
- 64-17-5 ethanol 14

· Product related hazard information:

The product has been classified and marked in accordance with regulations on hazardous materials.

· Hazard symbols:

Xn Harmful

ethanol

methanol

isopropanol

crystal violet

· Hazard-determining components of labeling:

ethanol

methanol

isopropanol

crystal violet

· Risk phrases:

40 Limited evidence of a carcinogenic effect.

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· Safety phrases:

7 Keep container tightly closed.

16 Keep away from sources of ignition - No smoking.

25 Avoid contact with eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37 Wear suitable protective clothing and gloves.

61 Avoid release to the environment. Refer to special instructions/Safety data sheets

(Contd. on page 7)

USA



Product name: Gram Crystal Violet

(Contd. of page 6)

National regulations

Technical instructions (at):

Class	Share in %
III	9,8

Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

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 cannot guarantee that these are the only hazards that exist.

- Department testing, MSDS: Safety and Environment Department
- Contact: Technical Service Representative