

Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

1. Identification of the substance/preparation and the company/undertaking

GHS product identifier

Product name: Crystal Violet

Other mean of identification

Product code(s): CHB-AGS-SKC

UN-Number: UN1170

Synonyms: None

Recommended use of the chemical and restrictions on use

Recommended use: Used in the gram stain procedure; alcohol/crystal violet.

Uses advised against: Uses not specified

Manufacturer or Distributor/Supplier address & phone/information

Manufacturer: Hardy Diagnostics
 1430 West McCoy Lane
 Santa Maria, CA 93455
 Ph.#: 800.266.2222

Distributed By: Cardinal Health
 Waukegan, IL 60085

Emergency telephone number: CHEMTREC 800.424.9300

2. Hazard(s) Identification

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Hazard identifier	Category
Flammable Liquid	3
Eye Irritant	2A
Carcinogenicity	2
Specific Target Organ Toxicity, Single Exposure	1
Harmful to Aquatic Life	3
Harmful to Aquatic Life with long lasting effects	3

GHS label elements, including precautionary statements

Highly Flammable liquid and vapor; H226

Causes serious eye irritation; H319

Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

Suspected of causing cancer, H351

Causes damage to organs; H370

Harmful to aquatic life; H402

Harmful to aquatic life with long lasting effects; H412

Emergency overview**Signal Word: Danger****Appearance: Dark Violet****Physical state: Liquid****Odor: Alcohol Smell****Precautionary statements**

General advice:

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P210: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
- P233: Keep container tightly closed.
- P240: Ground and bond container and receiving equipment.
- P241: Use explosion-proof equipment.
- P242: Use non-sparking tools.
- P243: Take action to prevent static discharges.
- P264: Wash hands thoroughly after handling.
- P270: Do not eat, drink, or smoke when using this product.
- P273: Avoid release to the environment.
- P280: Wear protective gloves and protective clothing.
- P303+P361+P353: IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P308+P311: If exposed or concerned: Call a POISON CENTER.
- P321: Specific treatment (see supplemental first aid instructions on this label).
- P370+P378: In case of fire: Use carbon dioxide, dry chemicals, sand, or alcohol resistant foam.

Eyes:

- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313: If eye irritation persists: Get medical attention.

Inhalation:

- P260: Do not breathe fumes, mists, vapors.

Storage:

- P403+P235: Store in well ventilated place. Keep cool
- P405: Store locked up.

Disposal:

- P501: Dispose of contents or container at an approved waste disposal facility, according to applicable regulations.

Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

Hazard not otherwise classified (HNOC)

No data available.

Other information

No data available.

3. Composition/Information on ingredients

Chemical name & Synonyms	CAS-No	Weight %	Trade Secret*
Ethanol	64-17-5	18.0	N/A
Isopropanol	67-63-0	1.0	N/A
Methanol	67-56-1	1.0	N/A
Crystal Violet	548-62-9	2.0	N/A

*If identified as trade secret, the specific chemical identity and/or concentration (%) has been withheld.

4. First aid measures**Description of necessary first-aid measures****Eye contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, keeping eyelids open. If irritation persists, consult a physician.

Skin contact:

Immediately wash thoroughly with soap and water. If irritation persists, consult a physician. Avoid touching contaminated clothing.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration and immediately seek medical attention.

Ingestion:

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek medical advice.

Most important symptoms/effects, acute and delayed

Most important symptoms/effects: The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11.

Recommendations for immediate medical attention and special treatment needed, if necessary

Notes to Physician: No data available.

5. Fire-fighting measures

Suitable extinguishing media: Water spray, carbon dioxide, dry chemical powder, or appropriate foam.
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Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

Specific hazards arising from the chemical

No data available.

Explosion data:

- No data available.

Protective equipment and precautions for firefighters (Including identification of any hazardous combustion products)

In the event of a fire, wear protective clothing and NIOSH-approved breathing apparatus necessary to prevent any possible irritation.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Wear protective equipment: chemical resistant gloves. Keep unprotected persons away.

Environmental precautions No data available.

Methods and materials for containment and cleaning up

Ventilate area of leak or spill. Remove all sources of ignition. Contain and recover liquid when possible. Use non-sparking tools and equipment.

Reference to other sections

For disposal, see section 13.

7. Handling and storage**Precautions for safe handling**

Wear appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool dry place in accordance with specified storage conditions.

Incompatible products:

No data available.

8. Exposure controls/personal protection**Control parameters**

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	EU OELVs
Ethanol	STEL: 1000 ppm	(Vacated) TWA: 1000 ppm (Vacated) TWA: 1900 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³	No Data Available
Isopropanol	TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes.	TWA: 400 ppm 8 hours. TWA: 980 mg/m ³ 8 hours.	TWA: 400 ppm 10 hours. TWA: 980 mg/m ³ 10 hours. STEL: 500 ppm 15	No Data Available

Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

			minutes. STEL: 1225 mg/m ³ 15 minutes.	
Methanol	TWA: 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA: 260 mg/m ³ (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m ³ Skin TWA: 200 ppm TWA: 260 mg/m ³	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³	No Data Available
Crystal Violet	No Data Available	No Data Available	No Data Available	No Data Available

ACGIH - American Conference of Governmental Industrial Hygienists
 OSHA - Occupational Safety and Health Administration
 NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering measures: Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Individual protection measures, such as personal protective equipment

Eye/face protection: Safety goggles. See OSHA eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
 Skin and body protection: Chemical resistant gloves. Wash thoroughly after handling
 Respiratory protection: None for normal use
 Hygiene measures: No data available

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid
 Odor: Alcohol Smell
 Appearance: Dark Violet
 Odor threshold: Not Determined

Property	Values	Remarks/Method
pH	Not Determined	
Melting point/range	Not Determined	
Freezing Point	Not Determined	
Boling point/boiling range	Not Determined	
Flash point	43°C / 109°C TCC	
Evaporation rate	Not Determined	
Flammability (solid, gas)	Not Determined	
Flammability limits in air	Not Determined	
-upper flammability limit	Not Determined	

Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

-lower flammability limit	Not Determined
Vapor pressure	Not Determined
Vapor density	Not Determined
Specific gravity/Relative Density	Not Determined
Water solubility	Soluble
Solubility in other solvents	Not Determined
Partition coefficient: n-octanol/water	Not Determined
Autoignition temperature	Not Determined
Decomposition temperature	Not Determined
Viscosity	Not Determined
Flammable properties	Not Determined
Explosive properties	Not Determined
Oxidizing properties	Not Determined

Other information

VOC content (%): Not Determined

10. Stability and reactivity**Reactivity**

No data activity.

Chemical stability

This product is stable under ordinary conditions of use and storage.

Possibility of hazardous reactions

No data activity.

Conditions to avoid

Heat, flame, sources of ignition, and direct sunlight

Incompatible materials

Strong oxidizing agents, Strong acids, Ignition sources.

Hazardous decomposition products (Including identification of any hazardous combustion products)Carbon monoxide (CO), Carbon dioxide (CO₂)**11. Toxicological information****Information on likely routes of exposure**

Product information:

- Inhalation: No data available.
- Eye contact: No data available.

Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

- Skin contact: No data available.
- Ingestion: No data available.

Chemical name	LD50 oral	LD50 dermal	LC50 inhalation
Crystal Violet	No data available	No data available	No data available
Ethanol	. Acute oral toxicity (LD50): 3450 mg/kg [Mouse].	No data available	Acute toxicity of the vapor (LC50): 39000 mg/m ³ 4 hours [Mouse].
Isopropanol	Acute oral toxicity (LD50): 3600 mg/kg [Mouse].	Acute dermal toxicity (LD50): 12800 mg/kg [Rabbit].	Acute toxicity of the vapor (LC50): 16000 8 hours [Rat].
Methanol	Acute oral toxicity (LD50): 5628 mg/kg [Rat].	Acute dermal toxicity (LD50): 15800 mg/kg [Rabbit].	Acute toxicity of the vapor (LC50): 64000 4 hours [Rat].

Symptoms related to the physical, chemical and toxicological characteristics

No data available.

Delayed and immediate effects and also chronic effects from short and long term exposure

- Sensitization: No data available
- Mutagenic effects (Methanol): Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. Classified POSSIBLE for human. Causes damage to the following organs: eyes. May cause damage to the following organs: blood, kidneys, liver, brain, peripheral nervous system, upper respiratory tract, skin, central nervous system (CNS), optic nerve.
- Carcinogenicity: Suspected of causing cancer
- Reproductive toxicity: No data available
- STOT – Central nervous system (CNS)
- Aspiration hazard: No data available

Numerical measures of toxicity – product

No data available

12. Ecological Information

Ecotoxicity

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to micro-organisms	Daphnia Magna (water flea)
Crystal Violet	Not Determined	Not Determined	Not Determined	Not Determined
Ethanol	Not Determined	Not Determined	Not Determined	Not Determined
Isopropanol	Not Determined	Not Determined	Not Determined	Not Determined
Methanol	Not Determined	Not Determined	Not Determined	Not Determined

Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

Persistence and Degradability

No data available

Bioaccumulation

No data available

Chemical name	Low Pow
Crystal Violet	No data available
Ethanol	No data available
Isopropanol	No data available
Methanol	No data available

Other adverse effects

No data available

13. Disposal considerations**Waste disposal methods**

Dispose of in accordance with applicable state and federal regulations.

Disposal must be in accordance with regulations 40 CFR 261.

Contaminated packaging

No data available

Chemical name	RCRA	RCRA – Basis for listing	RCRA – D series wastes	RCRA – U series wastes
Crystal Violet	N/A	N/A	N/A	N/A
Ethanol	N/A	N/A	N/A	N/A
Isopropanol	N/A	N/A	N/A	N/A
Methanol	N/A	N/A	N/A	N/A

14. Transport information**Notes:****DOT**

- UN-Number UN1170
- Proper shipping name Ethyl Alcohol Solution
- Hazard class Flammable Liquid
- Reportable quantity (RQ) 5000
- Packing Group II

TDG

- UN-Number UN1170
- Proper shipping name Ethyl Alcohol Solution
- Hazard class 3
- Description No data available.

Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

MEX

- UN-Number UN1170
- Proper shipping name Ethyl Alcohol Solution
- Hazard class 3
- Description No data available.

ICAO

- UN-Number UN1170
- Proper shipping name Ethyl Alcohol Solution
- Hazard class XXX
- Description No data available.

IATA

- UN-Number UN1170
- Proper shipping name Ethyl Alcohol Solution
- Hazard class No data available.
- ERG code No data available.
- Description No data available.

IMDG/IMO

- UN-Number UN1170
- Proper shipping name Ethyl Alcohol Solution
- Hazard class 3
- Subsidiary class No data available.
- EmS number No data available.
- Description No data available.

RID

- UN-Number UN1170
- Proper shipping name Ethyl Alcohol Solution
- Hazard class 3
- Classification code No data available.
- Description No data available.

ADR

- UN-Number UN1170
- Proper shipping name Ethyl Alcohol Solution
- Hazard class 3
- Classification code No data available.
- Tunnel restriction code No data available.
- Description No data available.
- ADR/RID – Labels No data available.

ADN

- Proper shipping name UN1170
- Hazard class Ethyl Alcohol Solution
- Classification code 3
- Special provisions No data available.
- Description No data available.
- Limited quantity No data available.
- Ventilation No data available.

Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

15. Regulatory information

Interventional inventories

- TSCA(Complies?) Yes No IECSC XXX

Legend

TSCA: United States Toxic Substances Control Act 8(b) inventory

U.S. Federal regulations

SARA 311/312 Hazard categories

- Acute health hazard Yes
- Chronic health hazard Yes
- Fire hazard Yes
- Sudden release of pressure hazard No
- Reactive hazard No

Clean Water Act

This product **does** contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

Chemical name	Hazardous substances RQs	Extremely hazardous substances RQs	RQ
Crystal Violet	N/A	N/A	N/A
Ethanol	5000	N/A	N/A
Isopropanol	N/A	N/A	N/A
Methanol	5000	N/A	N/A

U.S. state regulations

Chemical name	CAS-no	Prop 65	Category
Crystal Violet	548-62-9	No	N/A
Ethanol	64-17-5	No	N/A
Isopropanol	67-63-0	No	N/A
Methanol	67-56-1	Yes	N/A

U.S. state Right-to-Know regulations

"X" designates that the ingredients are listed on the state Right-to-Know list

Chemical name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Crystal Violet	-	-	-	-	-
Ethanol	X	X	X	X	X

Issuing date: 7/30/2018

Revision date: 05/15/2018

Revision number: SDS-002357[A]

Isopropanol	-	-	-	-	-
Methanol	X	X	X	X	X

U.S. EPA label information

EPA Pesticide registration number: N/A

16. Other information

	Health hazard	Flammability	Instability/Physical Hazard	Physical/Chemical Hazards/Personal protection
NFPA	N/A	N/A	N/A	N/A
HMIS	N/A	N/A	N/A	N/A

Prepared by: Hardy Diagnostics
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 Revision note: N/A

General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet