

Safety Data Sheet

Crystal Violet, Gram Stain

Revision Date: 01/17/19

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier	Trade name: Gram Stain Crystal Violet Product code(s): 6251, 6251-08, 6051, 6051-32,6928-G
1.2 Relevant identified uses	Laboratory Reagent
Supplier:	Astral Diagnostics Inc. 800-441-0366 Technical Service Monday-Friday: 8:00 -5:00 PM
Synonym:	None.
Material uses:	Laboratory Reagent.
Validation date:	12/11/2013
In case of emergency:	800-424-9300 CHEMTREC (USA) 24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

Emergency Overview:

GHS Label Elements: Pictogram



Signal Word: **DANGER!**

Hazard statement(s):

- H226:** Flammable liquid
- H316:** Causes mild skin irritation
- H319:** Causes serious eye irritation
- H412:** May cause long lasting harmful effects to aquatic life

Precautionary statement(s):

- P260:** Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
- P280:** Wear protective gloves/ eye protection/ face protection.
- P305+351+338:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

NFPA Rating

Health hazard: 2
Fire: 2
Reactivity Hazard: 0

HMIS Classification

Health hazard: 2
Flammability: 2
Physical hazards: 0

Potential Health Effects : Inhalation – May cause respiratory tract irritation.
Skin - May cause skin irritation.
Eyes – May cause eye irritation.
Ingestion – Potentially toxic if swallowed in large quantities.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% by volume
Ethanol	64-17-5	<11
Methanol	67-56-1	<1
Crystal Violet	17372-87-1	<1
Phenol	108-95-2	<.0.5
Water	7732-18-5	<90

4. FIRST AID MEASURES

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: *Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.*

First-aid measures after skin contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media: Do not use a heavy water stream

5.2 Special hazards arising from the substance or mixture

No additional information available

5.3 Advice for firefighters

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Do not enter fire area without proper protective equipment, including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Gloves. Safety glasses. Combined gas/dust mask with filter type B/P3.
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.
Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe mist, vapors, spray. Obtain special instructions before use. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.

Hygiene measures: Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Comply with applicable regulations.

Storage conditions: Keep container closed when not in use. Protect from sunlight. Store in a well-ventilated place.

Incompatible products: Strong oxidizers. Strong reducing agents. Strong bases.

Incompatible materials: Sources of ignition. Direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult local authorities for acceptable exposure limits.

Component	Source	Type	Value	Note	
Phenol Solution	ACGIH	TWA	19 mg/m ³ , 5 ppm		
	OSHA	PEL (TWA)	19 mg/m ³ , 5 ppm		
		IDLH	US IDLH	250 ppm	
	NIOSH	REL (TWA)	19 mg/m ³ , 5 ppm		
	NIOSH	REL (ceiling)	60 mg/m ³ 15 min		
	NIOSH	REL (ceiling)	15.6 ppm 15 min		
Ethanol Solution	ACGH	STEL	1000 ppm 15 min		
	OSHA	PEL (TWA)	1000 ppm 8 hours		
	NIOSH	REL (TWA)	1000 ppm 10 hours		
Methanol	ACGIH	TWA	200 ppm		
	ACGIH	STEL	250 ppm		
	NIOSH	TWA	260 mg/m ³ , 200 ppm		
	OSHA	TWA	260 mg/m ³ , 200 ppm		

Personal protective equipment: Safety glasses. Gloves. Protective clothing. High gas/vapor concentration: gas mask with filter type B.

Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or face shield.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: Wear appropriate mask. Gas mask with filter type B.

Other information: Do not eat, drink or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.	Color: Purple
Flash Point: NA	Odor: Characteristic
pH: NA	Boiling/condensation point: NA
Melting/freezing point: NA	Relative density: NA
Vapor pressure: NA	Vapor density: NA
Odor threshold: NA	Evaporation rate: NA
VOC: NA	Solubility: Soluble in the following materials: water

10. STABILITY AND REACTIVITY

10.1. Reactivity

No further relevant information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong oxidizers. Strong acids.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Nitrogen Oxides. Ammonia

11. TOXICOLOGICAL INFORMATION

Phenol (108-95-2)

LD50 oral rat	650 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rat	660 mg/kg (Rat; Experimental value; Equivalent or similar to OECD 402)
LD50 dermal rabbit	850 - 1400 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.32 mg/l/4h (Rat; Literature study)
ATE US (oral)	650.000 mg/kg body weight
ATE US (dermal)	660.000 mg/kg body weight
ATE US (vapors)	0.320 mg/l/4h
ATE US (dust, mist)	0.320 mg/l/4h

Water (7732-18-5)

LD50 oral rat	≥ 90000 mg/kg
ATE US (oral)	90000.000 mg/kg body weight

Ethanol (64-17-5)

LD50 Oral rat	3450 mg/kg (mouse)
LC50 Inhalation rat	20000 ppm/10H

Methanol

LD50 oral rat	1187-2769 mg/kg
LC50 inhalation rat (mg/l)	128.2 mg/l (4hr)
LC50 inhalation rat (mg/l)	87.6 mg/l (6hr)
LD50 Dermal rabbit	17100 mg/kg

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: No irritating effect

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not Classified

12. ECOLOGICAL INFORMATION

Toxicity:

Ethanol
LC50 fish 14200 mg/l

Methanol
LC50 fish 1 15400 mg/l
EC50 Daphnia 1 18260 mg/l
ErC50 algae 22000 mg/l

Persistence and degradability:

Ethanol
BOD 0.8-0.967 gO₂/g
COD 1.7 gO₂/g
ThOD 2.1 gO₂/g

Methanol
BOD 0.6-1.12 gO₂/g
COD 1.42 gO₂/g
ThOd 1.5 gO₂/g

Bioaccumulative potential:

Ethanol
BCF fish 1 1
Log Pow -0.31

Methanol
BCF fish 1 1-4.5
Log Pow -0.77

Mobility in soil:

Ethanol
Surface tension 0.022 N/m

Methanol
Surface tension 0.023 N/m
Log Koc -0.89-0.21

PBT and vPvB assessment: no data available

Other adverse effects: no data available

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT (US)

Not Regulated

15. REGULATORY INFORMATION

15.1 US Federal Regulations

All components are listed on the United States TSCA (Toxic Substances Control Act) inventory
Methanol

RQ 5000lb

SARA Section 311-312 Hazard classes : Flammable, Acute toxicity

15.2 International Regulations

All components are listed on the Canadian DSL (Domestic Substances List)

15.3 US State regulations

California Proposition 65



WARNING: This product can expose you to chemicals including Methanol, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

16. OTHER INFORMATION

National Fire Protection Association (U.S.A.)



Notice to reader

This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labeling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Astral Diagnostics, Inc be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.