

Safety Data Sheet **CRYSTAL VIOLET (various)**

SDS no. 0LQ82GGP • Version 1.0 • Date of issue: 2024-10-20

SECTION 1: Identification

GHS Product identifier

Product name CRYSTAL VIOLET (various)

Other means of identification

Product Product Code

Crystal Violet Lille ACVL

Crystal Violet Hucker & Conn ACVH

Recommended use of the chemical and restrictions on use

Laboratory stain/reagent. Staining of micro-organisms.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

National contact

Name Australian Biostain Pty Ltd
Address 16 Shipwright Road
5016 Largs North SA
Australia

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Carcinogenicity, Cat. 2
- Flammable liquids, Cat. 3
- Serious eye damage/eye irritation, Cat. 2A

GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statement(s)

- | | |
|------|-------------------------------------|
| H226 | Flammable liquid and vapor |
| H319 | Causes serious eye irritation |
| H351 | Suspected of causing cancer [route] |

Precautionary statement(s)

- | | |
|----------------|--|
| 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 [electrical/ventilating/lighting/...] equipment. |
| P242 | Use non-sparking tools. |
| P243 | Take action to prevent static discharges. |
| P264 | Wash hands thoroughly after handling. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P370+P378 | In case of fire: Use agents recommended in Section 5 of SDS for extinction |
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to an approved waste disposal facility |

SECTION 3: Composition/information on ingredients

Mixtures

Other components either not classified as Hazardous under the GHS, or below cut-off concentrations to be classified as Hazardous.

Components

Component	CAS no.	Concentration
Ethanol (EC no.: 200-578-6; Index no.: 603-002-00-5)	64-17-5	<= 30 % (weight)
CLASSIFICATIONS: Flammable liquids, Cat. 2; Serious eye damage/eye irritation, Cat. 2A. HAZARDS: H225 - Highly flammable liquid and vapor; H319 - Causes serious eye irritation.		

Safety Data Sheet

CRYSTAL VIOLET (various)

SDS no. 0LQ82GGP • Version 1.0 • Date of issue: 2024-10-20

Crystal violet (EC no.: 208-953-6; Index no.: 612-205-00-8)	548-62-9	< 2 % (weight)
CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Serious eye damage/eye irritation, Cat. 1; Hazardous to the aquatic environment, short-term (acute), Cat. 1; Hazardous to the aquatic environment, long-term (chronic), Cat. 1; Carcinogenicity, Cat. 2. HAZARDS: H302 - Harmful if swallowed; H318 - Causes serious eye damage; H351 - Suspected of causing cancer [route]; H400 - Very toxic to aquatic life; H410 - Very toxic to aquatic life with long lasting effects.		
Ammonium oxalate monohydrate (EC no.: 238-135-4)	6009-70-7	< 1 % (weight)
CLASSIFICATIONS: Acute toxicity, dermal, Cat. 4; Acute toxicity, oral, Cat. 4; Serious eye damage/eye irritation, Cat. 1; Skin corrosion/irritation, Cat. 2; Specific target organ toxicity following repeated exposure, Cat. 2; Specific target organ toxicity following single exposure, Cat. 3. HAZARDS: H302 - Harmful if swallowed; H312 - Harmful in contact with skin; H315 - Causes skin irritation; H318 - Causes serious eye damage; H335 - May cause respiratory irritation; H336 - May cause drowsiness or dizziness; H373 - May cause damage to organs [organs] through prolonged or repeated exposure [route].		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.
In case of skin contact	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the severity.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Caution: Use of water spray when fighting fire may be inefficient.

Small fire: Use foam, dry chemical, CO₂ or water spray.

Large fire: Use foam, fog or water spray - Do not use water jets.

If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of water until well after fire is out.

Specific hazards arising from the chemical

Hazards from Combustion Products: Oxides of carbon.

HIGHLY FLAMMABLE: These products have a low flash point - Will be easily ignited by heat, sparks or flames at ambient temperatures. Vapours will form explosive mixtures with air. Vapours will travel to source of ignition and flash back. Fire may produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Many liquids are lighter than water. Many vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks). Vapours from run-off may create an explosion hazard.

Ethanol: Carbon oxides

Special protective actions for fire-fighters

SCBA and structural firefighter's uniform may provide limited protection. Fully-encapsulating, gas-tight suits should be worn for maximum protection.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Extinguish naked flames. Remove ignition sources No smoking Avoid sparks. Avoid inhalation, contact with skin, eyes and clothing. Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid fumes.
Wear Safety glasses, gloves and protective apron.
Work in an area of good ventilation, an approved fume cupboard is preferred.
No eating or drinking in workplace, wash hands whenever leaving work area.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Flammable liquid

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 64-17-5

Ethanol

AU/SWA (Australia): 1000 ppm; 1880 mg/m³ TWA inhalation;

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Safety Data Sheet

CRYSTAL VIOLET (various)

SDS no. 0LQ82GGP • Version 1.0 • Date of issue: 2024-10-20

Body Protection: Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Purple liquid.
Color	No data available.
Odor	Faint alcohol.
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flammability	Flammable
Lower and upper explosion limit/flammability limit	No data available.
Flash point	29°C
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Completely.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	No data available.
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Risk of ignition. Vapours may form explosive mixtures with air

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Vapours may form explosive mixture with air.

Hazardous Polymerization: Will not occur.

Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

Incompatible materials

Strong oxidisers, metals.

Ethanol: Alkali metals, Oxidizing agents, Peroxides

Ammonium oxalate monohydrate: Strong oxidizing agents, Strong acids

Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 Crystal Violet 420 mg/kg Oral rat.

Ingestion: Significant oral exposure is considered to be unlikely and is unlikely to cause any irritation problems in the short or long term.

Inhalation: Unlikely to cause any irritation or discomfort.

Ethanol: ACGIH: A3 Confirmed animal carcinogen with unknown relevance to humans.

Skin corrosion/irritation

No adverse effects expected. However will stain the skin, and the stain may be difficult to remove, but should not cause any adverse health effects.

Serious eye damage/irritation

May be mildly irritating to the eyes.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Crystal violet - Carcinogenicity – category 2: H351 Suspected of causing cancer.

Reproductive toxicity

Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

Safety Data Sheet
CRYSTAL VIOLET (various)

SDS no. 0LQ82GGP • Version 1.0 • Date of issue: 2024-10-20

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

Aspiration hazard

Not classified based on available information.

Additional information

Ethanol: Stomach - Irregularities - Based on Human Evidence

Crystal violet: *TOXICITY:

typ. dose mode specie amount unit other

LD50 orl rat 420 mg/kg

LD50 ipr rat 8900 ug/kg

LD50 orl mus 96 mg/kg

LD50 ipr mus 5100 ug/kg

LDLo ivn mus 20 mg/kg

LD50 orl dog 1000 mg/kg

LDLo orl cat 100 mg/kg

LD50 orl rbt 150 mg/kg

LD50 ipr rbt 5 mg/kg

LD50 idu rbt 160 mg/kg

LDLo orl gpg 100 mg/kg

LDLo ipr gpg 10 mg/kg

*AQTX/TLM96: Not available

*SAX TOXICITY EVALUATION: Not available

*CARCINOGENICITY: Not available

*MUTAGENICITY: Mutagenic data:

cyt-hmn:hla 500 ug/L dni-hmn:hla 10 umol/L

cyt-hmn:lym 500 ug/L mmo-omi 1 ppm

cyt-ham:ovr 500 ug/L dnd-esc 10 umol/L

dnd-man:lym 10 pph mmo-sat 100 ng/plate

cyt-mam:oth 500 ug/L

cyt-nml:oth 500 ug/l

dnr-esc: 100ng/well

*TERATOGENICITY: Not available

*STANDARDS, REGULATIONS & RECOMMENDATIONS:

OSHA: None

ACGIH: None

NIOSH Criteria Document: None

NFPA Hazard Rating: Health (H): None

Flammability (F): None

Reactivity (R): None

*OTHER TOXICITY DATA:

Safety Data Sheet

CRYSTAL VIOLET (various)

SDS no. 0LQ82GGP • Version 1.0 • Date of issue: 2024-10-20

Skin and Eye Irritation Data:

skn-hmn 3 mg/3D-I MLD

skn-hmn 2 mg/2D-I MLD

skn-gpg 6 mg/3D-I

Status: Reported in EPA TSCA Inventory, 1980

Meets criteria proposed for OSHA Medical Records Rule

SECTION 12: Ecological information

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 1993

Class: 3

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Contains Ethanol)

Hazchem emergency action code (EAC)

•3YE

IMDG

UN Number: 1993

Class: 3

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Contains Ethanol)

IATA

UN Number: 1993

Class: 3

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Contains Ethanol)

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended.

Safety Data Sheet
CRYSTAL VIOLET (various)

SDS no. 0LQ82GGP • Version 1.0 • Date of issue: 2024-10-20

Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

Preparation information

All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.
Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)