

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 07.12.2022

Version number 5

Revision: 07.12.2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- **Trade name:** *Crystal Violet*
- **Synonyma** *C.I.Basic Violet 3; Methyl Violet 10B; C.I. 42555*



- **Article number:** 27335
- **CAS Number:** 548-62-9
- **EC number:** 208-953-6
- **Index number:** 612-204-00-2

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

- **Application of the substance / the mixture:** *Laboratory chemicals*

1.3 Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**
SERVA Electrophoresis GmbH
Carl-Benz-Str. 7
D-69115 Heidelberg
Tel.: +49 6221 13840-0
FAX: +49 6221 13840-10
msds.info@serva.de

- **Information department:** *Product Safety department Tel.: +49 6221 13840-35*

1.4 Emergency telephone number:

- Medical Emergency Information in case of poisoning:*
- Poison Information Center Mainz - Phone: +49 (0) 6131 19240*
- (advisory service in German or English language)*

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- **Classification according to Regulation (EC) No 1272/2008:**



GHS08

Carc. 2 H351 Suspected of causing cancer.



GHS05

Eye Dam. 1 H318 Causes serious eye damage.



GHS09

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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· 2.2 Label elements**· Labelling according to Regulation (EC) No 1272/2008:***The substance is classified and labelled according to the GB CLP regulation.***· Hazard pictograms:** GHS05, GHS07, GHS08, GHS09**· Signal word:** Danger**· Hazard statements:***H302 Harmful if swallowed.**H318 Causes serious eye damage.**H351 Suspected of causing cancer.**H410 Very toxic to aquatic life with long lasting effects.***· Precautionary statements***P201 Obtain special instructions before use.**P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P310 Immediately call a POISON CENTER/doctor.**P330 Rinse mouth.**P405 Store locked up.***· Labelling of packages where the contents do not exceed 125 ml****· Hazard pictograms** GHS05, GHS07, GHS08, GHS09**· Signal word** Danger**· Hazard statements***H318 Causes serious eye damage.**H351 Suspected of causing cancer.***· Precautionary statements***P201 Obtain special instructions before use.**P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P330 Rinse mouth.**P405 Store locked up.***· 2.3 Other hazards****· Results of PBT and vPvB assessment:****· PBT:** PBT - assessment not available.**· vPvB:** vPvB - assessment not available.**SECTION 3: Composition/information on ingredients****· 3.1 Substances****· CAS No. Description:***548-62-9 Crystal Violet***· Identification number(s):****· EC number:** 208-953-6**· Index number:** 612-204-00-2**· Description:****· Empirical formula:** $C_{25}H_{30}ClN_3$ **· MW:** 408.0**· SVHC**

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SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore 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. Consult doctor if you feel unwell.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing. Consult ophthalmologist immediately.

· **After swallowing:**

Wash out mouth instantly. Drink copious amounts of water and provide fresh air. Call for doctor immediately.

· **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **5.2 Special hazards arising from the substance or mixture:**

In case of fire, the following can be formed, but not limited to:

Nitrogen oxides (NO_x)

Hydrogen chloride (HCl)

Carbon monoxide and carbon dioxide

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Ensure adequate ventilation

Avoid formation of dust.

Avoid contact with the eyes and skin.

· **6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up**

Dispose contaminated material as waste according to item 13.

Pick up mechanically.

· **6.4 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.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling:** No special precautions are necessary if used correctly.

· **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed and store in dry conditions.
Store under lock and key and with access restricted to technical experts or their assistants only.
- **7.3 Specific end use(s):** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls:** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Store protective clothing separately.
Immediately remove all soiled and contaminated clothing
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
- **Breathing equipment:**
Short term filter device:
Filter P3.
- **Hand protection:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Protective gloves.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves:**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material:**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Nitrile rubber, NBR
Neoprene gloves
- **Eye/face protection:** Tightly sealed goggles.
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information:**
- **Physical state:** Solid.
- **Colour:** Green
- **Odour:** Odourless

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· Odour threshold:	no information available
· Melting point/freezing point:	189 °C
· Boiling point or initial boiling point and boiling range:	no information available
· Flammability:	no information available
· Lower and upper explosion limit:	
· Lower:	no information available
· Upper:	no information available
· Flash point:	no information available
· Decomposition temperature:	no information available
· pH:	2.5
· Viscosity:	
· Kinematic viscosity:	no information available
· Dynamic viscosity:	no information available
· Solubility:	
· Water at 20 °C:	ca. 1 g/l
· Partition coefficient n-octanol/water (log value):	no information available
· Vapour pressure:	no information available
· Density and/or relative density:	
· Density at 20 °C:	1.19 g/cm ³
· Relative density:	no information available
· Particle characteristics	No information available

· 9.2 Other information	There are no more data available.
· Appearance:	
· Form:	Powder
· Important information on protection of health and environment, and on safety:	
· Explosive properties:	Product is not explosive. However, formation of explosive dust-/air mixtures are possible.
· Molecular weight	408 g/mol

SECTION 10: Stability and reactivity

- **10.1 Reactivity:** No further relevant informations available
- **10.2 Chemical stability:**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions:** No further relevant informations available.
- **10.4 Conditions to avoid:** high temperatures
- **10.5 Incompatible materials:**
Avoid contact with:
Strong acids
Oxidizers
- **10.6 Hazardous decomposition products:** In case of fire: See Section 5

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:**
- **Acute toxicity:** Harmful if swallowed.

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

Oral	LD50	420 mg/kg (rat)
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- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Causes serious eye damage.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

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- **Carcinogenicity:** Suspected of causing cancer.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards:**
- **Endocrine disrupting properties:** Substance is not listed.

SECTION 12: Ecological information

- **12.1 Toxicity:**
 - **Aquatic toxicity:** No further relevant information available.
 - **12.2 Persistence and degradability:** No further relevant information available.
 - **12.3 Bioaccumulative potential:** No further relevant information available.
 - **12.4 Mobility in soil:** No further relevant information available.
 - **12.5 Results of PBT and vPvB assessment:**
 - **PBT:** PBT - assessment not available.
 - **vPvB:** vPvB - assessment not available.
 - **12.6 Endocrine disrupting properties:** For information on endocrine disrupting properties see section 11.
 - **12.7 Other adverse effects:**
 - **Remark:** Very toxic for fish
 - **Additional ecological information:**
 - **General notes:**
- Very toxic for aquatic organisms
Water danger class 3 (German Regulation) (Assessment by list): extremely hazardous for water.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
 - **Recommendation**
- Disposal must be made according to official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
 - **Recommendation:**
- Disposal of uncleaned packagings must be made according to official regulations in the same manner as the product.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

SECTION 14: Transport information

- | | |
|---------------------------------------|---|
| · 14.1 UN number or ID number | |
| · ADR, IMDG, IATA | UN3077 |
| · 14.2 UN proper shipping name | |
| · ADR | 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Crystal Violet) |
| · IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Crystal Violet), MARINE POLLUTANT |
| · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Crystal Violet) |

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· **14.3 Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class:** 9 Miscellaneous dangerous substances and articles.
 · **Label:** 9

· **14.4 Packing group**

· **ADR, IMDG, IATA** III

· **14.5 Environmental hazards**

· **Marine pollutant:** Yes (P)
 Symbol (fish and tree)
 · **Special marking (ADR):** Symbol (fish and tree)
 · **Special marking (IATA):** Symbol (fish and tree)

· **14.6 Special precautions for user**

Warning: Miscellaneous dangerous substances and articles.
 · **Hazard identification number (Kemler code):** 90
 · **EMS Number:** F-A,S-F
 · **Stowage Category** A
 · **Stowage Code** SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.

· **14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

· **Transport/Additional information:**

· **ADR**
 · **Limited quantities (LQ)** 5 kg
 · **Excepted quantities (EQ)** Code: E1
 Maximum net quantity per inner packaging: 30 g
 Maximum net quantity per outer packaging: 1000 g
 · **Transport category** 3
 · **Tunnel restriction code** E

· **IMDG**

· **Limited quantities (LQ)** 5 kg
 · **Excepted quantities (EQ)** Code: E1
 Maximum net quantity per inner packaging: 30 g
 Maximum net quantity per outer packaging: 1000 g

· **UN "Model Regulation":**

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CRYSTAL VIOLET), 9, III

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**
 · **Named dangerous substances - ANNEX I** Substance is not listed.
 · **Seveso category E1** Hazardous to the Aquatic Environment
 · **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
 · **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

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- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 28, 72
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
Substance is not listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
Substance is not listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.
- **Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
Substance is not listed.
- **National regulations:**
- **Water hazard class: Water danger class 3 (Assessment by list): extremely hazardous for water.**

Substances of very high concern (SVHC) according to UK REACH	
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- **15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department
- **Contact:** +49 6221 13840-35
- **Date of previous version:** 02.05.2018
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
SVHC: Substance of Very High Concern (UK REACH)
PBT: persistent, bioaccumulative, toxic substance (UK REACH)
vPvB: very persistent, very bioaccumulative substance (UK REACH)
UK REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
GB CLP: Regulation on classification, labelling and packaging of substances and mixtures
bw: body weight
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
P: Marine Pollutant
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Carc. 2: Carcinogenicity – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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