

**Crystal Violet**  
**CAS No 548-62-9****MATERIAL SAFETY DATA SHEET**  
**SDS/MSDS****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**Product name : **Crystal Violet**

CAS-No. : 548-62-9

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Industrial &amp; for professional use only.

**1.3 Details of the supplier of the safety data sheet**Company : Pallav Chemicals & Solvents Pvt. Ltd  
253, Shiv Shakti Industrial Estate, Opp Mittal Estate  
Andheri Kurla Road, Andheri (E), Mumbai - 400050  
INDIATelephone : +91 22 4928 4000  
Email : [sales@pallavchemicals.com](mailto:sales@pallavchemicals.com)**1.4 Emergency telephone number**

Emergency Phone # : +91 22 4928 4000 (9:00am - 6:00 pm) [Office hours]

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**Acute toxicity, Oral (Category 4), H302  
Serious eye damage (Category 1), H318  
Carcinogenicity (Category 2), H351  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

|    |                               |        |
|----|-------------------------------|--------|
|    |                               | R40    |
| Xn | Harmful                       | R22    |
| Xi | Irritant                      | R41    |
| N  | Dangerous for the environment | R50/53 |

For the full text of the R-phrases mentioned in this Section, see Section 16.

**2.2 Label elements****Labelling according Regulation (EC) No 1272/2008**

Pictogram



|                                |  |
|--------------------------------|--|
| Signal word                    | Danger   |
| Hazard statement(s)            |  |
| 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 statement(s)     |  |
| P273                           | Avoid release to the environment.  |
| P280                           | Wear protective gloves/ eye protection/ face 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. |
| P501                           | Dispose of contents/ container to an approved waste disposal plant.  |
| Supplemental Hazard Statements | none   |

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |   |  |
|------------------|---|--|
| Synonyms         | : | Basic Violet 3<br>Gentian Violet<br>Hexamethylpararosaniline chloride<br>Methyl Violet 10B |
| Molecular weight | : | 407,99 g/mol   |
| CAS-No.          | : | 548-62-9   |
| EC-No.           | : | 208-953-6  |
| Index-No.        | : | 612-204-00-2   |

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component  | Classification | Concentration                             |
|--|----------------|---|
| <b>C.I. Basic violet 3</b> Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH) |                |   |
| CAS-No.  | 548-62-9       | Acute Tox. 4; Eye Dam. 1; <= 100 %        |
| EC-No.   | 208-953-6      | Carc. 2; Aquatic Acute 1;                 |
| Index-No.  | 612-204-00-2   | Aquatic Chronic 1; H302, H318, H351, H410 |

#### Hazardous ingredients according to Directive 1999/45/EC

| Component  | Classification | Concentration                           |
|--|----------------|---|
| <b>C.I. Basic violet 3</b> Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH) |                |   |
| CAS-No.  | 548-62-9       | Xn, N, Carc.Cat.3, R22 - R40 - <= 100 % |
| EC-No.   | 208-953-6      | R41 - R50/53                            |
| Index-No.  | 612-204-00-2   |   |

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

## **SECTION 4: First aid measures**

### **4.1 Description of first aid measures**

#### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### **In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

#### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

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

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

No data available

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **5.2 Special hazards arising from the substance or mixture**

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

### **5.4 Further information**

No data available

## **SECTION 6: Accidental release measures**

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### **6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **6.4 Reference to other sections**

For disposal see section 13.

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.  
Storage class (TRGS 510): Non Combustible Solids

## 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Components with workplace control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |   |   |
|---|---|
| a) Appearance                                   | Form: crystalline<br>Colour: light blue |
| b) Odour  | No data available                       |
| c) Odour Threshold                              | No data available                       |
| d) pH   | 2,5 - 3,5 at 10 g/l at 20 °C            |
| e) Melting point/freezing point                 | 173 °C                                  |
| f) Initial boiling point and boiling range      | No data available                       |
| g) Flash point                                  | No data available                       |
| h) Evaporation rate                             | No data available                       |
| i) Flammability (solid, gas)                    | No data available                       |
| j) Upper/lower flammability or explosive limits | No data available                       |

|    |   |                                  |
|----|---|----------------------------------|
| k) | Vapour pressure                           | No data available                |
| l) | Vapour density                            | No data available                |
| m) | Relative density                          | 1,190 g/cm <sup>3</sup> at 20 °C |
| n) | Water solubility                          | 50 g/l at 27 °C                  |
| o) | Partition coefficient:<br>n-octanol/water | log Pow: 1,172 at 25 °C          |
| p) | Auto-ignition<br>temperature              | > 190 °C                         |
| q) | Decomposition<br>temperature              | No data available                |
| r) | Viscosity                                 | No data available                |
| s) | Explosive properties                      | No data available                |
| t) | Oxidizing properties                      | No data available                |

## 9.2 Other safety information

|                 |                             |
|-----------------|-----------------------------|
| Bulk density    | 220 - 400 kg/m <sup>3</sup> |
| Surface tension | 44,2 mN/m                   |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong oxidizing agents, Strong reducing agents

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Mouse - 96 mg/kg

LD50 Oral - Rabbit - 150 mg/kg

LD50 Intraperitoneal - Rat - 8,9 mg/kg

LD50 Intraperitoneal - Mouse - 5,1 mg/kg

LD50 Intraperitoneal - Rabbit - 5 mg/kg

LD50 Intraduodenal - Rabbit - 160 mg/kg

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

Severe eye irritation

#### Respiratory or skin sensitisation

No data available

### **Germ cell mutagenicity**

Human  
HeLa cell  
DNA inhibition

Human  
HeLa cell  
Cytogenetic analysis

Human  
lymphocyte  
Cytogenetic analysis

Rat  
Liver  
DNA inhibition

Mouse  
lymphocyte  
DNA damage

Hamster  
ovary  
Cytogenetic analysis

Mammal  
lymphocyte  
DNA damage

Mammal  
Other cell types  
Cytogenetic analysis

Non-mammalian  
Other cell types  
Cytogenetic analysis

Result: Equivocal evidence.  
Histidine reversion (Ames)

### **Carcinogenicity**

Limited evidence of a carcinogenic effect.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### **Reproductive toxicity**

No data available

#### **Specific target organ toxicity - single exposure**

No data available

#### **Specific target organ toxicity - repeated exposure**

No data available

#### **Aspiration hazard**

No data available

#### **Additional Information**

RTECS: Not available

prolonged or repeated exposure can cause:., Nausea, Headache, Vomiting

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Toxicity to daphnia and other aquatic invertebrates      EC50 - Daphnia magna (Water flea) - 0,35      - 48 h  
mg/l (OECD Test Guideline 202)

Toxicity to algae      EC50 - Pseudokirchneriella subcapitata - 0,42      - 72 h  
mg/l (OECD Test Guideline 201)

## 12.2 Persistence and degradability

Biodegradability Result: 10 % - Not readily biodegradable.

Ratio BOD/ThBOD 0,12 %

## 12.3 Bioaccumulative potential

No data available

## 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 3077

IMDG: 3077

IATA: 3077

### 14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (C.I. Basic violet 3)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (C.I. Basic violet 3)

IATA: Environmentally hazardous substance, solid, n.o.s. (C.I. Basic violet 3)

### 14.3 Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA: 9

### 14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

### 14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: yes

### 14.6 Special precautions for user

#### Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 190 7/2006.

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

#### Authorisations and/or restrictions on use

C.I. Basic violet 3

CAS-No.: 548-62-9

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

Carcinogenic (article 57a)

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

|                 |   |
|-----------------|---|
| Acute Tox.      | Acute toxicity  |
| Aquatic Acute   | Acute aquatic toxicity                                |
| Aquatic Chronic | Chronic aquatic toxicity                              |
| Carc.           | Carcinogenicity                                       |
| Eye Dam.        | Serious eye damage                                    |
| H302            | Harmful if swallowed.                                 |
| H318            | Causes serious eye damage.                            |
| H351            | Suspected of causing cancer.                          |
| H400            | Very toxic to aquatic life.                           |
| H410            | Very toxic to aquatic life with long lasting effects. |

### Full text of R-phrases referred to under sections 2 and 3

|        |  |
|--------|--|
| N      | Dangerous for the environment  |
| Xn     | Harmful  |
| R22    | Harmful if swallowed.  |
| R40    | Limited evidence of a carcinogenic effect.   |
| R41    | Risk of serious damage to eyes.  |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Pallav Chemicals & Solvents Pvt. Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.pallavchemicals.com](http://www.pallavchemicals.com) for additional terms and conditions of sale.