



Safety Data Sheet

Rhodamine B



Section 1: Chemical Product and Company Identification

Product Name: Rhodamine B

Contact Information:

Catalog Codes:

CAS#: 81-88-9

Email: info@drm-chem.com

RTECS: -

Address: #7, Afshar javan Alley, Sohrevardi St, Tehran, Iran

TSCA: -

post code: 1551818111

Synonym: Basic Violet 10, Brilliant Pink B, Rhodamine O, Tetraethylrhodamine

Tehran Sales: +98 21 88177760

Chemical Name: Rhodamine B

Order Online: Drm-chem.com

Chemical Formula: $C_{28}H_{31}ClN_2O_3$

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Rhodamine B	81-88-9	100 %

Toxicological Data on Ingredients:

Section 3: Hazards Identification

3.1 Classification of the substance or mixture

Acute toxicity, Category 4
Serious eye damage, Category 1
Long-term (chronic) aquatic hazard, Category 3

H302: Harmful if swallowed.
H318: Causes serious eye damage.
H412: Harmful to aquatic life with long lasting effects.

3.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word

Danger

Hazard statements

H302
H318
H412

Harmful if swallowed
Causes serious eye damage.
Harmful to aquatic life with long lasting effects

Precautionary statements

Prevention:

P264
P273
P280

Wash skin thoroughly after handling.
Avoid release to the environment.
Wear eye protection/ face protection.

Response:

P301 + P312

P305 + P351 + P338

IF SWALLOWED: Call a POISON CENTER/
doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for
several minutes. Remove contact lenses, if
present and easy to do. Continue rinsing.

Disposal:

P501

Dispose of contents/ container to an approved
waste disposal plant.

Reduced Labelling (<= 125 ml)

Hazard pictograms



Signal word

Danger

Hazard Statements

H412

H318

Precautionary Statements

P280

P305 + P351 + P338

Supplemental Hazard

Harmful to aquatic life with long lasting effects.
Causes serious eye damage.

Wear eye protection/ face protection
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
none

3.3 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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 4: First Aid Measures

4.1 Description of first-aid measures

General advice

Show this safety data sheet to the doctor in attendance

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). 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 3.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5: Fire and Explosion Data**5.1 Extinguishing media****Suitable extinguishing media**

Water Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

Hazardous combustion products

Nature of decomposition products not known.

5.3 Advice for firefighters

Special protective equipment for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Suppress (knock down) gases/vapours/mists with a water spray jet.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel:

Avoid inhalation of dusts

Avoid substance contact.

Ensure adequate ventilation.

Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. dry

Storage class

Storage class (TRGS 510): 11: 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

Occupational Exposure Limits

8.2 Exposure controls

Personal protective equipment

Eye/face protection

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

Hand protection

Material	Nitrile rubber
Break through time	480 min
Glove thickness	0,11 mm
Protective index	Full contact
Manufacturer	KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Material	Nitrile rubber
Break through time	480 min
Glove thickness	0,11 mm
Protective index	Splash contact
Manufacturer	KCL 741 Dermatril® L

Remarks	This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D36124 Eichenzell, Internet: www.kcl.de).
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Skin and body protection	protective clothing
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Section 9: Physical and Chemical Properties

Physical state	crystalline powder
Color	dark green
Odor	No data available
Melting point/freezing point	210 - 211 °C Method: dec.
Initial boiling point/boiling range	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Flash point	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Water solubility	ca. 10.000 g/l
Partition coefficient: n octanol/water	log Pow: > 1,9 - < 2 Bioaccumulation is not expected. (ECHA)
Vapor pressure	No data available
Relative density	No data available
Density	0,79 g/cm ³
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available
Explosives properties	Not classified as explosive.

Oxidizing properties

none

Section 10: Stability and Reactivity Data**10.1 Reactivity**

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Violent reactions possible with:
Strong oxidizing agents

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

Section 11: Toxicological Information**11.1 Information on toxicological effects****Mixture****Acute toxicity**

Acute toxicity estimate Oral - 500,1 mg/kg
(Expert judgement)
Oral: No data available
Inhalation: No data available
Dermal: No data available

Skin corrosion/irritation

Skin – Rabbit

Result: No skin irritation
Remarks: (External MSDS)

Serious eye damage/eye irritation

Remarks: Causes serious eye damage. (ECHA)

Respiratory or skin sensitization

Remarks: No data available

Germ cell mutagenicity

Test Type: Ames test
Test system: S. typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Test Type: gene mutation test
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Carcinogenicity

No data available

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

11.2 Additional Information

Endocrine disrupting properties

Product:

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

RTECS: BP3675000 Symptoms and signs of poisoning are:, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting

Section 12: Ecological Information

12.1 Toxicity

Mixture

Toxicity to fish

LC50 (Cyprinus carpio (Carp)): 83,9 mg/l
Exposure time: 48 h Remarks: (ECOTOX Database)
LC50 (Lepomis macrochirus (Bluegill)): 379 mg/l
Exposure time: 96 h
Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 22,9 mg/l
Exposure time: 48 h

Toxicity to microorganisms

EC10 (Pseudomonas putida): 120 mg/l
Exposure time: 30 min
Remarks: (External MSDS)

12.2 Persistence and degradability

Biodegradability

Concentration: 100 mg/l
Result: Not rapidly biodegradable
Biodegradation: 0 %
Exposure time: 28 d
Remarks: (ECHA)

12.3 Bioaccumulative potential

Bioaccumulation

Species: Cyprinus carpio (Carp)
Exposure time: 24 d
Concentration: 0,1 mg/l
Bioconcentration factor (BCF): < 0,2

Partition coefficient:
noctanol/water

log Pow: > 1,9 - < 2
Remarks: Bioaccumulation is not expected. (ECHA)

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 Endocrine disrupting properties

Product:

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Discharge into the environment must be avoided.

Section 13: Disposal Considerations

13.1 Waste treatment methods

No data available

Section 14: Transport Information

14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

Section 15: Other Regulatory Information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

Conditions of restriction for the following entries should be considered: Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.

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

Not applicable

Regulation (EU) No 2024/590 on substances that deplete the ozone layer

Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast)

Not applicable

REACH - List of substances subject to authorisation (Annex XIV)

Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Not applicable

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

Section 16: Other Information

References: Not available

Other Special Considerations: Not available

Created: /02/2026

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