

According to Regulation (EC) No 1907/2006

Rhodamine B (C.I. 45170)



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

1.1. Product identifier

Trade name

Rhodamine B (C.I. 45170)

CAS number

81-88-9

EC number

201-383-9

Synonyms

2-((2-hydroxy-1-naphthalenyl)azo)-5-((4-sulfophenyl)azo)-benzenesulfonic acid, disodium salt

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

Relevant identified uses

Research and development.

Not suitable for use in

Not suitable for human consumption or veterinary purposes.

1.3. Details of the supplier of the safety data sheet

Supplier

Molekula Group

Street address

Molekula Ltd, Lingfield Way, Darlington,

DL1 4XX Darlington

United Kingdom

Telephone

+44 (0) 3302 000 333

Email

info@molekula.com

Web site

www.molekula.com

Contact person

Kevin Banks

Email address

+44 (0) 7769276927

1.4. Emergency telephone number

Poison center/Additional emergency number

0344 892 0111 - National Poisons Information Service (Newcastle Centre)

According to Regulation (EC) No 1907/2006

Rhodamine B (C.I. 45170)



SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification

Serious eye damage, hazard category 1

Hazardous to the aquatic environment — Chronic hazard category 3

Acute toxicity, oral, hazard category 4

Hazard statements

H302, H318, H412

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P310 Immediately call a POISON CENTER/doctor.

P330 Rinse mouth.

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

No data available

According to Regulation (EC) No 1907/2006

Rhodamine B (C.I. 45170)



SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrases M factor acute M factor chronic	Note
Rhodamine B (C.I. 45170)	81-88-9 201-383-9 - -	100%	Acute Tox. 4 - oral, Eye Dam. 1, Aquatic Chronic 3	H302, H318, H412 - -	-

Molecular weight

479.01

Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

IF exposed or concerned: Get medical advice/attention. First aiders/ medical personnel need to protect themselves. Show this Safety Data Sheet (SDS) to medical personnel.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing stops, provide artificial respiration. For breathing difficulties oxygen may be necessary.

Skin contact

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Immediately call a POISON CENTER/doctor.

Eye contact

Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention.

Ingestion

IF SWALLOWED: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only if the persons are fully conscious and awake).

Information for doctors

No data available.

4.2. Most important symptoms and effects, both acute and delayed

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. Causes burns by all exposure routes.

See section 11 for more detailed information on health effects and symptoms.

According to Regulation (EC) No 1907/2006

Rhodamine B (C.I. 45170)



Inhalation

Single exposure may cause the following adverse effects: Causes severe burns. Difficulty in breathing.

Skin contact

Single exposure may cause the following adverse effects: Causes severe burns. Blistering may occur. May be absorbed in the body and cause dizziness, nausea and vomiting.

Eye contact

Single exposure may cause the following adverse effects: Causes serious eye damage.

Ingestion

Single exposure may cause the following adverse effects: Severe abdominal pain. May cause severe internal injury.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Immediately call a POISON CENTER/doctor.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

Unsuitable extinguishing media

No specific fire fighting procedure given.

5.2. Special hazards arising from the substance or mixture

Specific hazards:

Corrosive.

Combustible.

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Evacuate area. Avoid breathing gas, fume, vapours or spray. Prevent skin contact by maintaining a safe distance and by wearing suitable protective equipment/ clothing. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/spray. Avoid contact with skin and eyes.

In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. For personal protection, see section 8.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

According to Regulation (EC) No 1907/2006

Rhodamine B (C.I. 45170)



6.3. Methods and material for containment and cleaning up

Collect with absorbent, non-combustible material into suitable containers. Avoid dust formation.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Store in a dry place. Store in a closed container.

Store at ambient temperature.

7.3. Specific end use(s)

No specific usage precautions noted.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

Eye / face protection

Wear eye protection.

Hand protection

Wear protective gloves. Recommended gloves: Nitrile.

Glove Thickness: 0.11mm

Breakthrough time: 480 minutes

Always inspect gloves before use. If signs of wear and tear are noticed then the gloves should be replaced.

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. Wash contaminated skin thoroughly after handling.

Other skin protection

Wash skin thoroughly after handling.

Respiratory protection

Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided.

Environmental exposure controls

Avoid discharge into drains.

According to Regulation (EC) No 1907/2006

Rhodamine B (C.I. 45170)



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Solid

Colour

Green.

Odour

No data available

Melting point / freezing point

210 - 211 °C - dec.

Boiling point or initial boiling point and boiling range

No data available

Flammability

No data available

Lower and upper explosion limit

No data available

Flash point

No data available

Auto-ignition temperature

No data available

Decomposition temperature

No data available

pH

No data available

Kinematic viscosity

No data available

Solubility

No data available

Water solubility

ca. 10,000 g/l

Partition coefficient n-octanol/water

No data available

Vapour pressure

No data available

Density and/or relative density

0.79 g/l

According to Regulation (EC) No 1907/2006

Rhodamine B (C.I. 45170)



Relative vapour density

No data available

Particle characteristics

No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

Avoid dust formation. Heating.

10.5. Incompatible materials

Strong oxidising agents. Strong reducing agents.

10.6. Hazardous decomposition products

See section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product / Substance name CAS / EC no.	Dose descriptor
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	Acute toxicity estimate Oral -500 mg/kg

Skin corrosion/irritation

Product / Substance name CAS / EC no.	Result	Species
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	No skin irritation.	Rabbit

Serious eye damage/irritation

According to Regulation (EC) No 1907/2006

Rhodamine B (C.I. 45170)

Product / Substance name CAS / EC no.	Result	Species
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	Causes eye irritation.	Rabbit

Germ cell mutagenicity

Product / Substance name CAS / EC no.	Result	Metabolic activation / Exposure	Species	Method / Guideline
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	Negative.	with and without meta- bolic activation	-	OECD
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	Negative.	with and without meta- bolic activation	Chinese hamster lung cells	OECD 476

Carcinogenicity

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

No data available

SECTION 12: Ecological information**12.1. Toxicity****Acute fish toxicity**

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	LC50	379 mg/l	96 hours	Lepomis macrochirus (Bluegill)
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	LC50	83.9 mg/l	48 hours	Cyprinus carpio (Com- mon carp)

Acute crustacean toxicity

According to Regulation (EC) No 1907/2006

Rhodamine B (C.I. 45170)

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	EC50	22.9 mg/l	48 hours	Daphnia magna water flea

Micro-/macro organism toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	EC10	120 mg/l	30 minutes	Pseudomonas putida

12.2. Persistence and degradability**Persistence and degradability**

Product / Substance name CAS / EC no.	Degradation
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	The product is not readily biodegradable.

12.3. Bioaccumulative potential**Bioaccumulative potential**

Product / Substance name CAS / EC no.	Bioconcentration factor (BCF)	Duration	Species	Remark
Rhodamine B (C.I. 45170) 81-88-9 / 201-383-9	<0.2	24 days	Cyprinus carpio (Common carp)	0.1 mg/l

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

According to Regulation (EC) No 1907/2006

Rhodamine B (C.I. 45170)



SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

Dispose of contents/container in accordance with local regulations.

SECTION 14: Transport information

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU regulations

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

National regulations

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Phrase meaning

Eye Dam. 1 - Serious eye damage, hazard category 1

Aquatic Chronic 3 - Hazardous to the aquatic environment — Chronic hazard category 3

Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.