

1. Product and Company Identification

www.rxmarine.com

Product Name

RXSOL-60-6604-093

Product Type

BROMINE AR

Revised date

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Stock Point : Mumbai, Kandla, Chennai, Visakhapatnam, Kolkata, Fujairah, Muscat Barka

Phone +91 22 27815541 / 42

Fax +91 22 2781 1318 :::AOH :0091 9821214367

Email mail@rxmarine.com

2. Composition / Information on ingredients

www.rxmarine.com

Substance / Preparation : Bromine

CAS No :7726-95-6

Substance.

Contains no other components or impurities which will influence the classification of the product.

3. Hazards Identification

www.rxmarine.com

3.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : T+; R26

C; R35

N; R50

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Serious eye damage - Category 1 - Danger (CLP : Eye Dam. 1) H318

Skin corrosion - Category 1A - Danger (CLP : Skin Corr. 1A) H314

Acute toxicity, Inhalation - Category 2 - Danger (CLP : Acute Tox. 2) H330

Environmental hazards : Hazardous to the aquatic environment - Acute hazard -

Category 1 - Warning (CLP : Aquatic Acute 1) H400

3.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s) : T+ : Very toxic

C : Corrosive

N : Dangerous for the environment

R Phrase(s) : R26 : Very toxic by inhalation.

R35 : Causes severe burns.

R50 : Very toxic to aquatic organisms.

S Phrase(s) : S1/2 : Keep locked up and out of reach of children.

S7/9 : Keep container tightly closed and in well-ventilated place.

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms



Signal words : Danger

Hazard statements : H330 : Fatal if inhaled.

H314 : Causes severe skin burns and eye damage.

H400 : Very toxic to aquatic life.

Precautionary statements

☒ General : P102: Keep out of reach of children.

P103: Read label before use.

P101: If medical advice is needed, have product container or label at hand.

☒ Prevention : P284: Wear respiratory protection.

P280: Wear protective gloves, protective clothing, eye protection, face protection.

P271: Use only outdoors or in a well-ventilated area.

P260: Do not breathe dust, fume, gas, mist, vapours, spray.

P273: Avoid release to the environment.

P264: Wash thoroughly after handling.

☒ Response : P301+P330+P331: IF SWALLOWED : Rinse mouth. Do NOT induce vomiting.

P391: Collect spillage.

P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.

P363: Wash contaminated clothing before reuse.

☒ Storage : P403+P233: Store in well-ventilated place. Keep container tightly closed.

P405: Store locked up.

? **Disposal considerations :** P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

3.3. Other hazards

Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

4. First Aid Measures

www.rxmarine.com

4.1. Description of first aid measures

Inhalation : Specific treatment is urgent (see on this label). Immediately call a POISON CENTER or doctor. Remove to fresh air and keep at rest in a position comfortable for breathing.

Skin contact : Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor.

Eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. Rinse cautiously with water for several minutes.

Ingestion : Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor.

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

Symptoms relating to use : Fatal if inhaled.

Causes severe skin burns and eye damage.

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

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting Measures

www.r

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present. Thermal decomposition generates : Corrosive vapours.

5.3. Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.

Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental Release Measures

www.rxmarine.com

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection

Ventilate area.

For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Clean up methods : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and Storage

www.rxmarine.com

7.1. Precautions for safe handling

Handling : Wash thoroughly after handling. Avoid contact during pregnancy or while nursing. Use only outdoors or in a well-ventilated area. Do not breathe dust, fume, gas, mist, vapours, spray.

Technical protective measures : Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep only in the original container in a cool, well ventilated place. Keep container tightly closed.

Storage regulation : Comply with applicable regulations.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Specific end use(s) : None.

8. Exposure controls and personal protection

www.rxmarine.com

8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.

☒ **Respiratory protection** : Wear respiratory protection.

☒ **Hand protection** : Wear protective gloves.

☒ **Skin protection** : Wear suitable protective clothing.

☒ **Eye protection** : Chemical goggles or face shield.

☒ **Others** : When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

9. Physical and chemical properties

www.rxmarine.com

9.1. Information on basic physical and chemical properties

Physical state at 20 °C : Liquid.

Odour threshold : No data available.

pH value : No data available.

Melting point [°C] : 7.2 °C

Decomposition point [°C] : N/A

Critical temperature [°C] : N/A

Auto-ignition temperature [°C] : N/A

Flammability (solid, gas) : N/A

Flash point [°C] : N/A

Boiling point [°C] : 580C

Initial boiling point [°C] : N/A

Final boiling point [°C] : N/A

Evaporation rate : N/A

Vapour pressure [20°C] : 233 hPa at 20 °C

Vapour pressure mm/Hg : N/A

Vapour density : 5,52

Density [g/cm³] : 3,119

Relative density, gas (air=1) : N/A

Relative density, liquid (water=1) : N/A

Solubility in water [% weight] : 4 g/100 ml water @ 2

Solubility in water : N/A

Log Pow octanol / water at 20°C : No data available.

Solubility : N/A

Viscosity at 40°C [mm²/s] : N/A

9.2. Other information

Explosive properties : N/A

Explosion limits - upper [%] : N/A

Explosion limits - lower [%] : N/A

Oxidising properties : No data available.

10. Stability and reactivity

www.rxmarine.com

10.1. Reactivity

Reactivity : Not established.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

Thermal decomposition generates : Corrosive vapours.

11. Toxicological information

www.rxmarine.com

11.1. Information on toxicological effects

Acute toxicity

☒ **Inhalation :** Fatal if inhaled.

☒ **Dermal :** Based on available data, the classification criteria are not met.

☒ **Ingestion :** Based on available data, the classification criteria are not met.

Corrosion : Causes severe skin burns and eye damage.

Causes serious eye damage.

Irritation : Based on available data, the classification criteria are not met.

Sensitization : Based on available data, the classification criteria are not met.

Mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Toxic for reproduction : 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.

12. Ecological information

www.rxmarine.com

12.1. Toxicity

information : Very toxic to aquatic life.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

13. Disposal considerations

www.rxmarine.com

13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or

special waste collection point, in accordance with local, regional, national and/or international regulation.

Special precautions : Hazardous waste due to toxicity.

14. Transport information

www.rxmarine.com

14.1. Land transport (ADR-RID)

Proper shipping name : BROMINE or BROMINE SOLUTION

UN N° : 1744

H.I. nr : 886

ADR - Class : 8

Labelling - Transport : 8 : Corrosive substance. 6.1 : Toxic substances.

{ LÉ

ADR - Classification code : CT1

ADR - Group : I

ADR - Packing instructions : P804

ADR - Limited Quantity : 0

ADR - Tunnel code : C/D : Tank carriage: Passage forbidden through tunnels category C, D and E.

Other carriage: Passage forbidden through tunnels of category D and E.

14.2. Sea transport (IMDG) [English only]

Proper shipping name : BROMINE or BROMINE SOLUTION

UN N° : 1744

IMO-IMDG - Class or division : 8 : Corrosive substance. (6.1 : Toxic substances.)

IMO-IMDG - Packing group : I

IMO- IMDG - Packing instructions : P601

IMO-IMDG - Limited quantities : None

IMO-IMDG - Marine pollution : Yes

EMS-Nr : F-A S-B

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : BROMINE or BROMINE SOLUTION

UN N° : 1744

IATA - Class or division : 8 : Corrosive substance. (6.1 : Toxic substances.)

IATA - Packing group : I

IATA - Passenger and Cargo Aircraft : NOT ALLOWED

IATA - Cargo only : NOT ALLOWED

ERG-Nr : 8P

15. Regulatory information

www.rxmarine.com

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

Safety, health and environmental : Ensure all national/local regulations are observed. regulations/legislation specific for the substance or mixture

REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.

REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment : It has not been carried out.

16. Other information

www.rxmarine.com

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative

Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Further information : None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.