

Material Safety Data Sheet



BROMINE LR

VERSION : 02

DATE OF ISSUE : 26-08-2019

SUPERSEDES : 01

Product Code :12950

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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : BROMINE LR

Product code : 12950

Identification of the product : Bromine

CAS No : 7726- 95- 6

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

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.

Email : info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C.,OPP.Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503.

1.4. Emergency telephone number

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm)

2. Hazards identification

2.1. 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

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Extra labelling to display

Symbol(s) : T : Very toxic

N : Dangerous for the environment

C: Corrosive



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

R35: Cause severe burns.

R50: Very toxic to aquatic organisms.

S Phrase(s) : S7/9: Keep container tightly closed and in a well ventilated place.

S61: avoid release to the environment . refer to special instruction/safety data sheets.

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

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

Hazard pictograms



Signal word : Danger

Hazard statements : H314 - Causes severe skin burns and eye damage.

H330 - Fatal if inhaled.

H400 - Very toxic to aquatic life.

Precautionary statements : P260 - Do not breathe vapours, spray, dust, fume, gas.

P273 - Avoid release to the environment.

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

P284 - Wear respiratory 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 or doctor.

2.3. Other hazards

No additional information available

3. Composition/information on ingredients

3.1. Substances: BROMINE LR

CAS-No. : 7726-95-6

Substance.

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

4. First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

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First-aid measures after skin contact : Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects : Causes severe skin burns and eye damage.

Symptoms/effects after eye contact : Causes serious eye damage.

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

Treat symptomatically.

5. Firefighting measures

5.1. Extinguishing media

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

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

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

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

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Very toxic to aquatic life.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers.

6.4. Reference to other sections

No additional information available.

7. Handling and storage

7.1. Precautions for safe handling

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Precautions for safe handling : Avoid contact with skin and eyes. Avoid contact during pregnancy/while nursing. Do not breathe vapours.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

7.3. Specific end use(s)

No additional information available

8. Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection : Protective gloves

Eye protection : Chemical goggles or face shield

Skin and body protection : Wear suitable protective clothing

Respiratory protection : [In case of inadequate ventilation] wear respiratory protection.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available

Melting point : 7.2 °C

Freezing point : No data available

Boiling point : 58 °C

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : 233 hPa at 20 °C

Relative vapour density at 20 °C : 5.52

Relative density : No data available

Density : 3.119 g/cm³

Solubility : Water: 4 g/100ml @ 20°C

Log Pow : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

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Oxidising properties : No data available

Explosive limits : No data available

9.2. Other information

No additional information available

10. Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Fatal if inhaled.

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

12. Ecological information

12.1. Toxicity

Ecology - water : Very toxic to aquatic life.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

13. Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal

Recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14. Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1744

UN-No. (IMDG) : 1744

UN-No. (IATA) : 1744

UN-No. (ADN) : 1744

UN-No. (RID) : 1744

14.2. UN proper shipping name

Proper Shipping Name (ADR) : BROMINE

Proper Shipping Name (IMDG) : BROMINE

Proper Shipping Name (IATA) : Bromine

Proper Shipping Name (ADN) : BROMINE

Proper Shipping Name (RID) : BROMINE

Transport document description (ADR) : UN 1744 BROMINE, 8 (6.1), I, (C/D), ENVIRONMENTALLY HAZARDOUS

Transport document description (IMDG) : UN 1744 BROMINE, 8 (6.1), I, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS

Transport document description (IATA) : UN 1744 Bromine, 8 (6.1), I, ENVIRONMENTALLY HAZARDOUS

Transport document description (ADN) : UN 1744 BROMINE, 8 (6.1), I, ENVIRONMENTALLY HAZARDOUS

Transport document description (RID) : UN 1744 BROMINE, 8 (6.1), I, ENVIRONMENTALLY HAZARDOUS

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14.3. Transport hazard class(es)

ADR- Transport hazard class(es) (ADR) : 8 (6.1)

Danger labels (ADR) : 8, 6.1

IMDG- Transport hazard class(es) (IMDG) : 8 (6.1)

Danger labels (IMDG) : 8, 6.1

IATA- Transport hazard class(es) (IATA) : 8 (6.1)

Hazard labels (IATA) : 8, 6.1

ADN- Transport hazard class(es) (ADN) : 8 (6.1)

Danger labels (ADN) : 8, 6.1

RID- Transport hazard class(es) (RID) : 8 (6.1)

Danger labels (RID) : 8, 6.1

14.4. Packing group

Packing group (ADR) : I

Packing group (IMDG) : I

Packing group (IATA) : I

Packing group (ADN) : I

Packing group (RID) : I

14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport- Classification code (ADR) : CT1

Limited quantities (ADR) : 0

Excepted quantities (ADR) : E0

Packing instructions (ADR) : P804

Mixed packing provisions (ADR) : MP2

Portable tank and bulk container

instructions (ADR) : T22

Portable tank and bulk container special

provisions (ADR) : TP2, TP10

Tank code (ADR) : L21DH(+)

Tank special provisions (ADR) : TU14, TU33, TC5, TE21, TT2, TM3, TM5

Vehicle for tank carriage : AT

Transport category (ADR) : 1

Special provisions for carriage - Loading,
unloading and handling (ADR) : CV13, CV28

Special provisions for carriage - Operation
(ADR) : S14

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Hazard identification number (Kemler No.) : 886

Orange plates :

Tunnel restriction code (ADR) : C/D

EAC code : 2XE

APP code : B

Transport by sea- Packing instructions (IMDG) : P804

Tank instructions (IMDG) : T22

Tank special provisions (IMDG) : TP2, TP10, TP13

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-B

Stowage category (IMDG) : D

Stowage and handling (IMDG) : SW1, SW2, H2

Segregation (IMDG) : SG6, SG16, SG17, SG19

Properties and observations (IMDG) : Very dark brown, heavy liquid with an extremely irritating odour. Density: 3.1 (pure

product). Boiling point: 59°C . Powerful oxidant; may cause fire in contact with organic materials such as wood, cotton or straw. Highly corrosive to most metals.

Solutions have the same properties to a lesser degree, depending on concentration.

Toxic if swallowed, by skin contact or by inhalation. Causes burns to skin, eyes and mucous membranes.

MFAG-No : 154

Air transport- PCA Limited quantities (IATA) : Forbidden

PCA limited quantity max net quantity

(IATA) : Forbidden

PCA packing instructions (IATA) : Forbidden

PCA max net quantity (IATA) : Forbidden

CAO packing instructions (IATA) : Forbidden

CAO max net quantity (IATA) : Forbidden

Special provisions (IATA) : A2

ERG code (IATA) : 8P

Inland waterway transport- Classification code (ADN) : CT1

Special provisions (ADN) : 802

Limited quantities (ADN) : 0

Excepted quantities (ADN) : E0

Equipment required (ADN) : PP, EP, TOX, A

Ventilation (ADN) : VE02

Number of blue cones/lights (ADN) : 2

Rail transport- Classification code (RID) : CT1

Limited quantities (RID) : 0

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Excepted quantities (RID) : E0
Packing instructions (RID) : P804
Mixed packing provisions (RID) : MP2
Portable tank and bulk container instructions (RID) : T22
Portable tank and bulk container special provisions (RID) : TP2, TP10
Tank codes for RID tanks (RID) : L21DH(+)
Special provisions for RID tanks (RID) : TU14, TU33, TU38, TC5, TE21, TE22, TE25, TT2, TM3, TM5
Transport category (RID) : 1
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW28
Hazard identification number (RID) : 886
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

15. Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

BROMINE FOR SYNTHESIS is not on the REACH Candidate List

BROMINE FOR SYNTHESIS is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) 2, Significantly hazardous to water (Classification

according to AwSV; ID No. 2355)

12th Ordinance Implementing the Federal

Immission Control Act - 12.BImSchV

: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de

voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de

voortplanting giftige stoffen –

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Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de

voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

16. Other information

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.

End of document

Prepared by: MOLYCHEM (INDIA)

For questions contact: MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

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