

Bromine v.p.

Revision: 03.12.2025

Product code: AC14.00422

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Bromine v.p.

CAS No: 7726-95-6
Index No: 035-001-00-5
EC No: 231-778-1

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

Reagents and laboratory chemicals
Only for laboratory and analysis purposes.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet**Details of the supplier of the safety data sheet**

Company name: AnalytiChem Services, Unipessoal, Lda
Street: Rua de Júlio Dinis 676 7º
Place: N-4050-320 Porto
Telephone: +351 226002917
E-mail: info@analytichem.com
Contact person: SDS service department
E-mail: SDS@analytichem.com
Internet: www.analytichem.com
Responsible Department: SDS service department

Supplier or manufacturer details

Company name: AnalytiChem Belgium NV
Street: Industriezone "De Arend" 2
Place: B-8210 Zedelgem
Telephone: +32 50 28 83 20
E-mail: info.be@analytichem.com
Contact person: SDS service department
E-mail: SDS@analytichem.com
Responsible Department: AnalytiChem
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333

1.4. Emergency telephone**number:**

+44 20 3807 3798 (CHEMTREC)

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Further Information

No information available.

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Acute Tox. 1; H330

Skin Corr. 1A; H314

Aquatic Acute 1; H400 (M-Factor (self-classification) = 100)

Full text of hazard statements: see SECTION 16.

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

Signal word: Danger

Pictograms:

**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 dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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/doctor.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Sum formula: Br2

Molecular weight: 159,82 g/mol

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Relevant ingredients

| CAS No | Chemical name | | | Quantity |
|-----------|--|--------------|-----------------------|----------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 7726-95-6 | bromine | | | 100 % |
| | 231-778-1 | 035-001-00-5 | 01-2119461714-37-XXXX | |
| | Acute Tox. 1, Skin Corr. 1A, Aquatic Acute 1; H330 H314 H400 | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|-----------|---|---------------|----------|
| | Specific Conc. Limits, M-factors and ATE | | |
| 7726-95-6 | 231-778-1 | bromine | 100 % |
| | inhalation: ATE = 0,05 mg/l (vapours); inhalation: ATE = 0,005 mg/l (dusts or mists) Aquatic Acute 1; H400: M=100 | | |

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection!

After inhalation

Provide fresh air. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

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

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately.

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

Cough, Dyspnoea, Headache, Vomiting, Cyanosis (blue coloured blood), Dizziness

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

No information available.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

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Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids

Hazardous combustion products

In case of fire may be liberated: Hydrogen bromide (HBr)

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Do not breathe dust/fume/gas/mist/vapours/spray.

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

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Advice on safe handling

Read label before use. Handle and open container with care.
When using do not eat, drink, smoke, sniff. Use personal protection equipment.
Provide adequate ventilation. Avoid contact with skin, eyes and clothes.
Do not breathe vapour/aerosol. Use extractor hood (laboratory).

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary.
Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

Hints on joint storage

Take national regulations into account.

Further information on storage conditions

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

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|-----------|-----------|------------|-------------------|-----------|----------------------------|------------|
| 7726-95-6 | Bromine | 0.1 0.2 | 0.66 1.3 | | TWA (8 h) STEL (15 min) | WEL WEL |

DNEL/DMEL values

| CAS No | Substance | DNEL type | Exposure route | Effect | Value |
|-----------|-----------|------------------------|----------------|----------|-----------------------|
| 7726-95-6 | bromine | | | | |
| | | Worker DNEL, long-term | inhalation | systemic | 0,7 mg/m ³ |
| | | Worker DNEL, acute | inhalation | systemic | 0,7 mg/m ³ |
| | | Worker DNEL, long-term | inhalation | local | 0,7 mg/m ³ |
| | | Worker DNEL, acute | inhalation | local | 0,7 mg/m ³ |

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PNEC values

| CAS No | Substance | |
|---------------------------|-----------|------------|
| Environmental compartment | | Value |
| 7726-95-6 | bromine | |
| Freshwater | | 0,001 mg/l |
| Marine water | | 0,001 mg/l |

8.2. Exposure controls**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment**Eye/face protection**

goggles

Wear eye/face protection.

Hand protection

Tested protective gloves must be worn

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Thermal hazards

No data available

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | |
|--|-------------------|
| Physical state: | Liquid |
| Colour: | brown |
| Odour: | stinging |
| Odour threshold: | No data available |
| Melting point/freezing point: | -7,2 °C |
| Boiling point or initial boiling point and boiling range: | 58-59 °C |
| Flammability: | not applicable |
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |
| Flash point: | No data available |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | not determined |

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| | |
|--|------------------------|
| pH-Value: | No data available |
| Viscosity / kinematic: | No data available |
| Water solubility: (at 20 °C) | 36,5 g/l |
| Solubility in other solvents | |
| not determined | |
| Dissolution rate: | No data available |
| Partition coefficient n-octanol/water: | No data available |
| Dispersion stability: | No data available |
| Vapour pressure: (at 20 °C) | 233 hPa |
| Vapour pressure: | No data available |
| Density (at 25 °C): | 3,11 g/cm ³ |
| Relative density: | No data available |
| Bulk density: | No data available |
| Relative vapour density: | No data available |
| Particle characteristics: | No data available |

9.2. Other information**Information with regard to physical hazard classes**

| | |
|---------------------------|-------------------|
| Explosive properties | |
| No data available | |
| Sustained combustibility: | No data available |
| Self-ignition temperature | |
| Solid: | not applicable |
| Gas: | not applicable |
| Oxidizing properties | |
| Not oxidising. | |

Other safety characteristics

| | |
|--------------------------|-------------------|
| Evaporation rate: | not determined |
| Solvent separation test: | No data available |
| Solvent content: | 0 |
| Solid content: | 0 |
| Sublimation point: | No data available |
| Softening point: | No data available |
| Pour point: | No data available |
| No data available: | |
| Viscosity / dynamic: | 1,02 mPa·s |
| Flow time: | No data available |

Further Information

No data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No data available

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Alcohols, Alkali metals

Acetylene, Amines

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Ketone, aldehydes
Rubber articles, metals
Ammonia (NH₃), Azides
Hydrogen, Reducing agent
Fluorine, Ether

10.4. Conditions to avoid

Radiant heat.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

In case of fire may be liberated:
SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information**11.1. Information on hazard classes****Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

Acute toxicity

Fatal if inhaled.

| CAS No | Chemical name | | | | |
|-----------|----------------------|----------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 7726-95-6 | bromine | | | | |
| | inhalation vapour | ATE 0,05 mg/l | | | |
| | inhalation dust/mist | ATE 0,005 mg/l | | | |

Irritation and corrosivity

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

Reproductive toxicity: 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.

Information on likely routes of exposure

There are no data available on the mixture itself.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

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Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards**Endocrine disrupting properties**

There are no data available on the mixture itself.

Other information

There are no data available on the mixture itself.

Further information

Cough, Dyspnoea, Headache, Vomiting, Cyanosis (blue coloured blood), Dizziness

SECTION 12: Ecological information**12.1. Toxicity**

Very toxic to aquatic life.

| CAS No | Chemical name | | | | | |
|-----------|--------------------------|--------------|-----------|---------|---------------|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 7726-95-6 | bromine | | | | | |
| | Acute crustacea toxicity | EC50 mg/l | ca. 1 | 48 h | Daphnia magna | Bull. Environ. Contam. Toxicol., Vol. 24 The study authors employed standard acut |

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|-----------|---------------|---------|
| 7726-95-6 | bromine | -1,49 |

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Discharge into the environment must be avoided.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not allow to enter into surface water or drains.

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Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

| | |
|--|---------|
| 14.1. UN number or ID number: | UN 1744 |
| 14.2. UN proper shipping name: | BROMINE |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | I |
| Hazard label: | 8+6.1 |
| Classification code: | CT1 |
| Limited quantity: | 0 |
| Excepted quantity: | E0 |
| Transport category: | 1 |
| Hazard No: | 886 |
| Tunnel restriction code: | C/D |

Inland waterways transport (ADN)

| | |
|--|---------|
| 14.1. UN number or ID number: | UN 1744 |
| 14.2. UN proper shipping name: | BROMINE |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | I |
| Hazard label: | 8+6.1 |
| Classification code: | CT1 |
| Special Provisions: | 802 |
| Limited quantity: | 0 |
| Excepted quantity: | E0 |

Marine transport (IMDG)

| | |
|--|-----------|
| 14.1. UN number or ID number: | UN 1744 |
| 14.2. UN proper shipping name: | BROMINE |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | I |
| Hazard label: | 8+6.1 |
| Special Provisions: | - |
| Limited quantity: | 0 |
| Excepted quantity: | E0 |
| EmS: | F-A, S-B |
| Segregation group: | 1 - acids |

Air transport (ICAO-TI/IATA-DGR)

| | |
|--|-----------|
| 14.1. UN number or ID number: | UN 1744 |
| 14.2. UN proper shipping name: | BROMINE |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | I |
| Hazard label: | 8+6.1 |
| Special Provisions: | A2 |
| Limited quantity Passenger: | Forbidden |
| Passenger LQ: | Forbidden |
| IATA-packing instructions - Passenger: | Forbidden |
| IATA-max. quantity - Passenger: | Forbidden |
| IATA-packing instructions - Cargo: | Forbidden |
| IATA-max. quantity - Cargo: | Forbidden |

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14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes
Danger releasing substance: bromine

14.6. Special precautions for user

Warning: Toxic. strongly corrosive.

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 regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive 9/33/EC. 2012/18/EU (SEVESO III): 9 Bromine (7726-95-6)

Additional information: H1, E1

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

SECTION 16: Other information**Abbreviations and acronyms**

Acute Tox. 1: Acute toxicity, hazard category 1

Skin Corr. 1A: Skin corrosion, sub-category 1A

Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H314 Causes severe skin burns and eye damage.
H330 Fatal if inhaled.
H400 Very toxic to aquatic life.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Safety Data Sheet**Bromine v.p.**

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