

**Bromine a.r.**

Revision: 03.12.2025

Product code: AC14.00890

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

**1.1. Product identifier**

Bromine a.r.

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  
+44 20 3807 3798 (CHEMTREC)

**1.4. Emergency telephone number:**

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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: Br<sub>2</sub>

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 exhaust 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 <sup>3</sup>	fibres/ml	Category	Origin
7726-95-6	Bromine	0.1	0.66		TWA (8 h)	WEL
		0.2	1.3		STEL (15 min)	WEL

**DNEL/DMEL values**

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

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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 <sup>3</sup>
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 (NH<sub>3</sub>), 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 ca. 1 mg/l	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)**

<b>14.1. UN number or ID number:</b>	UN 1744
<b>14.2. UN proper shipping name:</b>	BROMINE
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	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)**

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

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 1744
<b>14.2. UN proper shipping name:</b>	BROMINE
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	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)**

<b>14.1. UN number or ID number:</b>	UN 1744
<b>14.2. UN proper shipping name:</b>	BROMINE
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	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 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.

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