

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Bromoform

Version number: 2.0  
 Issued: 2024-01-30  
 Replaces SDS: 2019-02-26



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

### 1.1. Product identifier

**Trade name**

Bromoform

**CAS number**

75-25-2

**EC number**

200-854-6

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

**Relevant identified uses**

Research and development. Laboratory Chemicals. Manufacture of substances.

**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

**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**

+44 (0) 7769276927

### 1.4. Emergency telephone number

**Poison center/Additional emergency number**

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

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

#### Classification

Flammable liquids, hazard category 3  
 Acute toxicity, oral, hazard category 4  
 Skin irritation, hazard category 2  
 Eye irritation, hazard category 2  
 Acute toxicity, inhalation, hazard category 3  
 Hazardous to the aquatic environment — Chronic hazard category 2

#### Hazard statements

H226, H302, H315, H319, H331, H411

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

H226 Flammable liquid and vapour.  
 H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H411 Toxic to aquatic life with long lasting effects.

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## **Precautionary statements**

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P260 Do not breathe vapour.

P273 Avoid release to the environment.

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

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

P302 + P352 IF ON SKIN: Wash with plenty of water/.

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.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice/attention.

## **2.3. Other hazards**

No data available

## **SECTION 3: Composition/information on ingredients**

### **3.1. Substances**

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
bromoform; tribromomethane	75-25-2 200-854-6 01-2120794648-33 602-007-00-X	100%	Flam. Liq. 3, Acute Tox. 4 - oral, Skin Irrit. 2, Eye Irrit. 2, Acute Tox. 3 - inhala- tion, Aquatic Chronic 2	H226, H302, H315, H319, H331, H411 - -	-

## **Molecular weight**

252.73

## **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.

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## Inhalation

Toxic if inhaled. 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

In case of 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. The casualty should be transferred to hospital for further treatment.

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

## Inhalation

Single exposure may cause the following adverse effects: Difficulty in breathing. Unconsciousness, possibly death.

## Skin contact

Single exposure may cause the following adverse effects: Skin irritation.

## Eye contact

Single exposure may cause the following adverse effects: Severe irritation.

## Ingestion

Single exposure may cause the following adverse effects: Severe abdominal pain.

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

Treat symptomatically. No special treatment requirement.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Use alcohol resistant foam, carbon dioxide or dry powder to extinguish.

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## Unsuitable extinguishing media

No specific fire fighting procedure given.

## 5.2. Special hazards arising from the substance or mixture

Specific hazards: FLAMMABLE. Toxic if inhaled.

Development of hazardous combustion gases or vapours possible in the event of fire. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen bromide (HBr).

Vapours are heavier than air and may travel along the floor and in the bottom of containers. Containers can burst violently when heated, due to excess pressure build-up.

## 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

Avoid inhalation of vapours and spray mist and contact with skin and eyes. For personal protection, see section 8. Provide adequate ventilation. Remove sources of ignition. Beware of the explosion danger. Take action to prevent static discharges.

### 6.2. Environmental precautions

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

### 6.3. Methods and material for containment and cleaning up

Collect with absorbent, non-combustible material into suitable containers. Remove sources of ignition. Beware of the explosion danger. Use spark-proof tools and explosion-proof equipment.

### 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. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. This product is toxic. Keep containers tightly closed. Immediate first aid is necessary. Wear protective clothing, gloves, eye and face protection. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid ingestion and inhalation. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Do not reuse empty containers.

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## General hygiene

Observe good chemical hygiene practices. Remove contaminated clothing immediately and wash skin with soap and water. Remove contaminated clothing and launder thoroughly before re-use. Wash skin thoroughly after handling.

## 7.2. Conditions for safe storage, including any incompatibilities

Store at room temperature. Store in a dry place. Store in a closed container.

Storage class : Flammable liquid storage.

## 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

#### Personal Protective Equipment Symbols



#### Eye / face protection

Wear eye protection.

#### Hand protection

Wear protective gloves. Recommended gloves: Viton rubber (fluor rubber).

Glove Thickness: 0.7mm

Breakthrough time: 8 hours

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.

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Physical state

Liquid

#### Colour

Colourless.

#### Odour

No data available

#### Melting point / freezing point

8 - 9 °C

#### Boiling point or initial boiling point and boiling range

149 - 151 °C

#### Flammability

No data available

#### Lower and upper explosion limit

No data available

#### Flash point

30 °C

#### **Method**

CC (Closed cup).

#### Auto-ignition temperature

No data available

#### Decomposition temperature

No data available

#### pH

No data available

#### Kinematic viscosity

No data available

#### Solubility

No data available

#### Partition coefficient n-octanol/water

No data available

#### Vapour pressure

No data available

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## Density and/or relative density

2.89 g/cm<sup>3</sup>

### Method

(20°C)

## Relative vapour density

No data available

## Explosive properties

Not explosive

## Particle characteristics

No data available

## 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Vapor/air-mixtures are explosive at intense warming.

### 10.2. Chemical stability

Stable under the prescribed storage conditions.

Reacts strongly with alkaline metals and metal powder.

### 10.3. Possibility of hazardous reactions

Risk of explosion with: Acetone. potassium hydroxide.

Exothermic reaction with: Alkaline earth metals Strong bases

### 10.4. Conditions to avoid

Heating.

### 10.5. Incompatible materials

Alkaline earth metals Strong bases Strong oxidising 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



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Product / Sub- stance name CAS / EC no.	Dose descriptor	Value / Dose	Duration of exposure	Test animals	Remarks
bromoform; tribromomethane 75-25-2 / 200-854-6	Acute Toxicity (Oral LD50):	933mg/kg	-	Rat	-
bromoform; tribromomethane 75-25-2 / 200-854-6	ATE (Inhalation)	3.1 mg/l (vapours)	4 hours	-	ATE = Acute Toxicity Estimate.

## 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 / Sub- stance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Remark
bromoform; tribromomethane 75-25-2 / 200-854-6	LC50	29mg/l	96 hours	Lepomis macrochirus (Bluegill)	(US-EPA)

#### Acute algae toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
bromoform; tribromomethane 75-25-2 / 200-854-6	ErC50	13mg/l	72 hours	Pseudokirchneriella subcapitata

#### Acute crustacean toxicity

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Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
bromoform; tribromo-methane 75-25-2 / 200-854-6	EC50	46mg/l	48 hours	Daphnia magna

## Micro-/macro organism toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
bromoform; tribromo-methane 75-25-2 / 200-854-6	NOEC	< 10mg/l	3 hours	Activated sludge.
bromoform; tribromo-methane 75-25-2 / 200-854-6	EC50	> 1,000mg/l	3 hours	Activated sludge.

## 12.2. Persistence and degradability

### Persistence and degradability

Product / Substance name CAS / EC no.	Type of test	Duration	Result	Degradation
bromoform; tribromo-methane 75-25-2 / 200-854-6	aerobic	28 days	The product is not readily biodegradable.	6%

## 12.3. Bioaccumulative potential

No data available

## 12.4. Mobility in soil

No data available

## 12.5. Results of PBT and vPvB assessment

No data available

## 12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors.

## 12.7. Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal considerations

Dispose of contents/container in accordance with local/regional/national/international regulations.

## SECTION 14: Transport information

### 14.1. UN number

2515

### 14.2. UN proper shipping name

#### ADR / RID / ADN proper shipping name

BROMOFORM

#### IMDG proper shipping name

BROMOFORM

#### IATA proper shipping name

Bromoform

### 14.3. Transport hazard class(es)

#### Label

ADR/RID/ADN



6.1 Environmental hazard

IMDG



6.1 Environmental hazard

IATA



6.1 Environmental hazard

#### ADR / RID Class

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## ADR / RID Classification code

T1

## ADR / RID hazard identification number

60

## IMDG Class

6.1

## IATA Class

6.1

## ADN Class

6.1

## ADN Class Code

T1

### 14.4. Packing group

ADR / RID / ADN: III

IMDG: III

IATA: III

### 14.5. Environmental hazards

#### IMDG EmS

F-A, S-A

#### IMDG Marine Pollutant

Yes

### 14.6. Special precautions for user

Tunnel restriction code: E

Transport category: 2

### 14.7. Maritime transport in bulk according to IMO instruments

IBC Instruction: IBC03

## 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.

This material safety data sheet complies with the requirements of Regulation (EU) 2020/878.

#### National regulations

No data available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

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## SECTION 16: Other information

### Phrase meaning

Flam. Liq. 3 - Flammable liquids, hazard category 3

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

Skin Irrit. 2 - Skin irritation, hazard category 2

Eye Irrit. 2 - Eye irritation, hazard category 2

Acute Tox. 3 - inhalation - Acute toxicity, inhalation, hazard category 3

Aquatic Chronic 2 - Hazardous to the aquatic environment — Chronic hazard category 2

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H411 Toxic to aquatic life with long lasting effects.