

## MATERIAL SAFETY DATA SHEET (SDS/MSDS)

**BROMOBENZENE 99% EXTRA PURE**

CAS-No.: 108-86-1

Product Code: 00490

Molecular Formula:  $C_6H_5Br$

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

Product form : Substance  
Trade name : Bromobenzene 99% Extra Pure  
EC-No. : 203-623-8  
CAS No : 108-86-1

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

**1.2.2. Uses advised against**

No additional information available

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

Company : Chemnovo Synthesis Pvt Ltd.  
N-226 Near Kumbhavali Naka  
Tarapur MIDC, Boisar-401 506  
Palghar, Maharashtra  
Telephone : +91 7400096089  
Email: export@chemnovo.in

**1.4. Emergency telephone number**

Emergency number : + 91 7400096089 (9:00am - 6:00 pm)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids,	H226
Category 3	
Skin corrosion/irritation,	H315
Category 2	
Hazardous to the aquatic environment – Chronic	H411
Hazard, Category 2	

Full text of classification categories and H statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xi; R38

N; R51/53

R10

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

**2.2. Label elements**

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

Hazard pictograms (CLP) :



GHS02

GHS07

GHS09

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H226 - Flammable liquid and vapour

H315 - Causes skin irritation

H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

P273 - Avoid release to the environment

**2.3. Other hazards**

No additional information available

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

Name : Bromobenzene 99% Extra Pure

CAS No : 108-86-1

EC-No. : 203-623-8

Full text of R- and H-statements: see section 16

**3.2. Mixture**

Not applicable

**SECTION 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. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

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

Symptoms/injuries after skin contact : Causes skin irritation.

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

Treat symptomatically.

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

Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (Co2).

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

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

Fire hazard : Flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture.

**5.3. Advice for firefighter**

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

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

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

**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 : Stop release.

**6.2. Environmental precautions**

Avoid release to the environment.

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

Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

**6.4. Reference to other sections**

No additional information available

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

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : No naked lights. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools.

Hygiene measures : Wash ... thoroughly after handling.

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

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Technical measures	:	Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment.
Storage conditions	:	Keep container tightly closed. Store in original container. Store in a dry place.
Incompatible materials	:	Heat sources.

**7.3. Specific end use(s)**

No additional information available

**SECTION 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 safety glasses
Skin and body protection	:	Wear suitable protective clothing
Respiratory protection	:	Wear appropriate mask

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

Physical state	:	Liquid
Molecular mass	:	157.02 g/mol
Colour	:	Clear Colorless.
Odour	:	characteristic aromatic odor.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1) :		No data available
Melting point	:	-31 °C
Freezing point	:	No data available
Boiling point	:	154 - 155
Flash point	:	51 °C
Auto-ignition temperature	:	566 °C
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Flammable Flammable liquid and vapour
Vapour pressure	:	5.3 hPa at 25,0 °C
Relative vapour density at 20 °C	:	5.41
Relative density	:	No data available
Density	:	1.5 g/cm <sup>3</sup>
Solubility	:	Water: Insoluble
Log Pow	:	2.99
Viscosity, kinematic	:	No data available

Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	0.06 - 0.365 vol %

**9.2. Other information**

No additional information available

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

No additional information available

**10.2. Chemical stability**

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

**10.3. Possibility of hazardous reactions**

No additional information available

**10.4. Conditions to avoid**

Open flame. Overheating. Direct sunlight. Heat. Sparks.

**10.5. Incompatible materials**

No additional information available

**10.6. Hazardous decomposition products**

May release flammable gases.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

Acute toxicity	:	Not classified
Skin corrosion/irritation	:	Causes skin irritation.
Serious eye damage/irritation	:	Not classified
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

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

Ecology - water : Toxic to aquatic life with long lasting effects.

**12.2. Persistence and degradability****BROMOBENZENE 99% EXTRA PURE (108-86-1)**

Persistence and degradability	May cause long-term adverse effects in the environment.
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**MATERIAL SAFETY DATA SHEET (SDS/MSDS)****BROMOBENZENE 99% EXTRA PURE****CAS-No.: 108-86-1****12.3. Bioaccumulative potential****BROMOBENZENE 99% EXTRA PURE (108-86-1)**

Log Pow	2.99
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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

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

Product/Packaging disposal recommendations	:	Dispose of contents/container to ...
Additional information	:	Handle empty containers with care because residual vapours are flammable.

**SECTION 14: Transport information**

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

**14.1. UN number**

UN-No. (ADR)	:	2514
UN-No. (IMDG)	:	2514
UN-No.(IATA)	:	2514
UN-No.(AND)	:	2514
UN-No. (RID)	:	2514

**14.2. UN proper shipping name**

Proper Shipping Name (ADR)	:	BROMOBENZENE
Proper Shipping Name (IMDG)	:	BROMOBENZENE
Proper Shipping Name (IATA)	:	BROMOBENZENE
Proper Shipping Name (ADN)	:	BROMOBENZENE
Proper Shipping Name (RID)	:	BROMOBENZENE
Transport document description (ADR):		UN 2514 BROMOBENZENE, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)		UN 2514 BROMOBENZENE, 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS (51°C c.c.)
Transport document description (IATA):		UN 2514 BROMOBENZENE, 3, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN):		UN 2514 BROMOBENZENE, 3, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID) :		UN 2514 BROMOBENZENE, 3, III, ENVIRONMENTALLY HAZARDOUS

**14.3. Transport hazard class(es)**

ADR

Transport hazard class(es) (ADR)	:	3
Danger labels (ADR)	:	3

:

**IMDG**

Transport hazard class(es) (IMDG) : 3  
Danger labels (IMDG) : 3

:

**IATA**

Transport hazard class(es) (IATA) : 3  
Hazard labels (IATA) : 3

:

**AND**

Transport hazard class(es) (ADN) : 3  
Danger labels (AND) : 3

:

**RID**

Transport hazard class(es) (RID) : 3  
Danger labels (RID) : 3

**14.4. Packing group**

Packing group (ADR)	:	III
Packing group (IMDG)	:	III
Packing group (IATA)	:	III
Packing group (ADN)	:	III
Packing group (RID)	:	III

**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)	:	F1
Limited quantities (ADR)	:	5L
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	:	Mp19
Portable tank and bulk container instructions (ADR)	:	T2

## Portable tank and bulk container special provisions (ADR)

Tank code (ADR)	:	LGBF
Vehicle for tank carriage	:	FL

Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12

Special provisions for carriage - Operation (ADR)	:	S2
Hazard identification number (Kemler No.)	:	30

Orange plates	:	30
		2514

**MATERIAL SAFETY DATA SHEET (SDS/MSDS)****BROMOBENZENE 99% EXTRA PURE****CAS-No.: 108-86-1****Chemnovo**  
DRIVEN BY CHEMISTRY, DEFINED BY PRECISION

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Tunnel restriction code (ADR)	:	D/E
EAC code	:	2Y
- Transport by sea		
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, Lp01
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T2
Tank special provisions (IMDG)	:	Tp1
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-D
Stowage category (IMDG)	:	A
Flash point (IMDG)	:	51°C c.c.
MFAG-No	:	130
- Air transport		
PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y344
PCA limited quantity max net quantity (IATA)	:	10L
PCA packing instructions (IATA)	:	355
PCA max net quantity (IATA)	:	60L
CAO packing instructions (IATA)	:	366
CAO max net quantity (IATA)	:	220L
ERG code (IATA)	:	3L
- Inland waterway transport		
Classification code (ADN)	:	F1
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	Ve01
Number of blue cones/lights (ADN)	:	0
- Rail transport		
Classification code (RID)	:	F1
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Mixed packing provisions (RID)	:	Mp19
Portable tank and bulk container instructions (RID)	:	T2
Portable tank and bulk container special provisions (RID)	:	Tp1
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	3

**MATERIAL SAFETY DATA SHEET (SDS/MSDS)****BROMOBENZENE 99% EXTRA PURE****CAS-No.: 108-86-1****Special provisions for carriage – Packages**

(RID) : W12  
Colis express (express parcels) (RID) : Ce4  
Hazard identification number (RID) : 30

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**SECTION 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

Bromobenzene 99% Extra Pure is not on the REACH Candidate List

Bromobenzene 99% Extra Pure is not on the REACH Annex XIV List

**15.1.2. National regulations****Germany**

12th Ordinance Implementing the Federal

Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

**Denmark**

Class for fire hazard : Class II-1

Store unit : 5 liter

Classification remarks : R10 &lt;H226;H315;H411&gt;; Emergency management guidelines for the storage of flammable liquids must be followed

**15.2. Chemical safety assessment**

No additional information available

**SECTION 16: Other information**

Full text of R-, H- and EUH-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H226	Flammable liquid and vapour
H315	Causes skin irritation
H411	Toxic to aquatic life with long lasting effects
R10	Flammable
R38	Irritating to skin
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**MATERIAL SAFETY DATA SHEET (SDS/MSDS)****BROMOBENZENE 99% EXTRA PURE****CAS-No.: 108-86-1**

N	Dangerous for the environment
Xi	Irritant

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Chemnovo Synthesis Pvt Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.chemnovo.in](http://www.chemnovo.in) for additional terms and conditions of sale.

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