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## MATERIAL SAFETY DATA SHEET (MSDS)

H226: Flammable liquid and vapor.

H411: Toxic to aquatic life with long lasting

H315: Causes skin irritation.

#### **SECTION 1: Product identifiers**

Product Name : 108-86-1 Product Code : B 2077 CAS No: 108-86-1

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 OTTO CHEMIE PVT LTD No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number Phone no. : + 91 98200 41841 (10 : 00 am - 06 : 00 pm)

## SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Flammable liquids, (Category 3) Skin irritation, (Category 2) Long-term (chronic) aquatic

effects. hazard, (Category 2) 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Warning Hazard Statements Flammable liquid and vapor. H226 H315 Causes skin irritation. Toxic to aquatic life with long lasting effects. H411 Precautionary Statements Keep away from heat, hot surfaces, sparks, open flames and P210 other ignition sources. No smoking. Keep container tightly closed. P233 Ground and bond container and receiving equipment. P240 Use explosion-proof electrical/ ventilating/ lighting/ equipment. P241 P273 Avoid release to the environment. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Supplemental Hazard Statements none Reduced Labeling (<= 125 ml) Pictogram Signal Word Warning Hazard Statements none **Precautionary Statements** none Supplemental Hazard Statements none 2.3 Other hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain components considered to have endocrine

disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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

bl

Component		Classification	Concentration	
bromobenzene				
CAS-No EC-No.	108-86-1 203-623-8	Flam. Liq. 3; Skin Irrit. 2; Aquatic Chronic 2; H226, H315, H411	<= 100 %	A

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

#### Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with

water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section

2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed No data available

# **SECTION 5: Firefighting measures**

5.1 Extinguishing media Suitable extinguishing media Water Foam Carbon dioxide (CO2) Dry powder Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture Carbon oxides Hydrogen bromide gas Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapours possible in the event of fire. 5.3 Advice for firefighters Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. 5.4 Further information Remove container from danger zone and cool with water. Suppress (knock down)

gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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#### SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. 6.2 Environmental precautions Do not let product enter drains. Risk of explosion. 6.3 Methods and materials for containment and cleaning up Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb® ). Dispose of properly. Clean up affected area. 6.4 Reference to other sections For disposal see section 13. **SECTION 7: Handling and storage** 7.1 Precautions for safe handling Advice on protection against fire and explosion Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Hygiene measures Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Storage class Storage class (TRGS 510): 3: Flammable liquids 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated **SECTION 8: Exposure controls/personal protection** 8.1 Control parameters Ingredients with workplace control parameters 8.2 Exposure controls Personal protective equipment Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses Skin protection This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Viton® Minimum layer thickness: 0,7 mm Break through time: 480 min This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: butyl-rubber Minimum layer thickness: 0,7 mm Break through time: 30 min Material tested:Butoject® (KCL 898)

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**Body Protection** Flame retardant antistatic protective clothing. Respiratory protection Recommended Filter type: Filter A-(P2) The entrepeneur 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. Control of environmental exposure Do not let product enter drains. Risk of explosion. **SECTION 9: Physical and chemical properties** 9.1 Information on basic physical and chemical properties a) Physical state liquid, clear b) Color colorless c) Odor aromatic d) Melting Melting point: -30,73 °C at 1.013,25 hPa point/freezing point e) Initial boiling point 156,2 °C at 1.013,25 hPa and boiling range f) Flammability (solid, No data available gas) g) Úpper/lower Upper explosion limit: 2,5 %(V) flammability or explosive limits Lower explosion limit: 0,5 %(V) h) Flash point 51,0 °C - closed cup 565 °C i) Autoignition at 1.013,25 hPa temperature j) Decomposition No data available temperature k) pH No data available I) Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: No data available m) Water solubility 0,445 g/l at 25 °C n) Partition coefficient: log Pow: 3,14 at 25 °C - Bioaccumulation is not expected. n-octanol/water o) Vapor pressure 13.3 hPa at 40.0 °C 5,3 hPa at 25,0 °C 9,97 hPa at 35 °C p) Density 1,49 g/cm3 at 20 °C Relative density No data available q) Relative vapor No data available density r) Particle No data available *c*haracteristics s) Explosive properties No data available t) Oxidizing properties none 9.2 Other safety information Surface tension 36 mN/m at 20 °C **SECTION 10: Stability and reactivity** 10.1 Reactivity Vapor/air-mixtures are explosive at intense warming. 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature). 10.3 Possibility of hazardous reactions Violent reactions possible with: Oxidizing agents

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peroxi compounds Alkali metals Alkaline earth metals

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10.4 Conditions to avoid Heating. 10.5 Incompatible materials No data available 10.6 Hazardous decomposition products In the event of fire: see section 5

# **SECTION 11: Toxicological information**

11.1 Information on toxicological effects Routes of Entry: Absorbed through skin. Dermal contact. Eve contact. Toxicity to Animals: Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L. Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant). Special Remarks on Toxicity to Animals: Not available. Special Remarks on Chronic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available. **SECTION 12: Ecological information** 12.1 Toxicity Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 5,6 mg/l - 96 h Remarks: (ECOTOX Database) Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 15,7 mg/l - 48 h (OECD Test Guideline 202) Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - 12,3 mg/l - 72 h Remarks: (ECHA) static test NOEC - Pseudokirchneriella subcapitata - 4,87 mg/l - 72 h Remarks: (ECHA) 12.2 Persistence and degradability Biodegradability aerobic - Exposure time 28 d Result: 0 % - Not readily biodegradable. Remarks: (HSDB) 12.3 Bioaccumulative potential No data available 12.4 Mobility in soil No data available 12.5 Results of PBT and vPvB assessment This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. 12.6 Endocrine disrupting properties Product: Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission

Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects Discharge into the environment must be avoided.

# **SECTION 13: Disposal considerations**

13.1 Waste treatment methods Product See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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#### **SECTION 14: Transport information**

4.4.4. LINL un complete au							
		IATA: 2514					
= = .							
	BROMOBENZENE						
	IMDG: 3	IATA: 3					
	IMDG: III	IATA: III					
5		IATA: no					
Further information : No data	available						
	et complies with the requirements of Re	egulation (EC) No.					
	ons on use						
	ADR/RID: IMDG: IATA: 14.3 Transport hazard class(e ADR/RID: 3 14.4 Packaging group ADR/RID: III 14.5 Environmental hazards ADR/RID: yes 14.6 Special precautions for u Tunnel restriction code : (D/E) Further information : No data SECTION 15: Regulatory inf 15.1 Safety, health and enviro substance or mixture This material safety data shee 1907/2006. Authorisations and/or restriction National legislation Seveso III: Directive 2012/18// European Parliament and of ti on the control of major-accide involving dangerous substance E2 ENVIRONMENTAL HAZA	ADR/RID: 2514 IMDG: 2514   14.2 UN proper shipping name ADR/RID:   ADR/RID: BROMOBENZENE   IMDG: BROMOBENZENE   IATA: BROMOBENZENE   14.3 Transport hazard class(es) IMDG: 3   ADR/RID: 3 IMDG: 3   ADR/RID: 3 IMDG: 3   14.4 Packaging group ADR/RID: III   ADR/RID: III IMDG: III   14.5 Environmental hazards ADR/RID: yes   ADR/RID: yes IMDG Marine pollutant: yes   14.6 Special precautions for user Tunnel restriction code : (D/E)   Further information : No data available SECTION 15: Regulatory information   15.1 Safety, health and environmental regulations/legislation specific substance or mixture This material safety data sheet complies with the requirements of Ref 1907/2006.   Authorisations and/or restrictions on use Section of the structure of					

P5c FLAMMABLE LIQUIDS Other regulations

Take note of Dir 94/33/EC on the protection of young people at work 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

#### **SECTION 16: Other Information**

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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