

An ISO 9001 : 2015 & GMP Certified Company 101, Aarkay Ruby Industrial Estate (1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208. Tel : + 91 98200 41841

Email: info@ottokemi.com Web: www.ottokemi.com

## **MATERIAL SAFETY DATA SHEET (MSDS)**

**SECTION 1. Product identifiers** 

Product name: Allyl bromide, GR 99%+

Product Code: A 1671a CAS No: 106-95-6

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

101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate,

Chinchpada, Vasai East, Waliv, Maharashtra 401208.

Email info@ottokemi.com

1.4. Emergency telephone number

Phone no.: + 91 22 2207 0099 (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

Flammable liquids (Category 2), H225 Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318

Germ cell mutagenicity (Category 1B), H340

Carcinogenicity (Category 1B), H350

Short-term (acute) aquatic hazard (Category 1), H400

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

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapor.

H301 + H331 Toxic if swallowed or if inhaled.

H314 Causes severe skin burns and eye damage.

H340 May cause genetic defects.

H350 May cause cancer.

H400 Very toxic to aquatic life.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

P273 Avoid release to the environment.

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

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable

for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

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

rinsina.

Supplemental Hazard

Statements

none

Restricted to professional users.

Reduced Labeling (<= 125 ml)

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Pictogram

Signal Word Danger

Hazard statement(s)

H340 May cause genetic defects.

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P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

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

Supplemental Hazard

Statements

none

2.3 Other hazards - none

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

3.1 Substances

Synonyms: 3-Bromo-1-propene

Formula : C3H5Br

Molecular weight : 120,98 g/mol

CAS-No.: 106-95-6 EC-No.: 203-446-6

EC-INO 203-440-0		
Component	Classification	Concentration
3-bromo-1-propene		
CAS-No. 106-95-6	Flam. Liq. 2; Acute Tox. 3;	<= 100 %
EC-No. 203-446-6	Skin Corr. 1B; Eye Dam.	
	1; Aquatic Acute 1; H225,	
	H301, H331, H314, H318,	
	H400	
	M-Factor - Aqu <mark>atic</mark> Acute:10	
propylene oxide Included in the		
Candidate List of Substances of Very		
High Concern (SVHC)	6 331	
according to Regulation (EC) No.		
1907/2006 (REACH)		
CAS-No. 75-56-9	Flam. Liq. 1; Acute Tox. 4;	<= 0,1 %
EC-No. 200-879-2	Acute Tox. 3; Eye Irrit. 2;	
Index-No. 603-055-00-4	Muta. 1B; Carc. 1B; STOT	
	SE 3; H224, H302, H331,	
	H311, H319, H340, H350,	
	H335	

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

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

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In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

Remove contact lenses.

If swallowed

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 in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

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.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

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.

# **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 carefully 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 safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Flash back possible over considerable distance. Container explosion may occur under fire conditions. Keep away from open flames, hot surfaces and sources of ignition. Take

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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. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage stability

Recommended storage temperature

2 - 8 °C

Moisture sensitive. Light sensitive.

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). Tightly fitting safety goggles

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 EN374 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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell,

Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 120 min

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic

compounds

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

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b) Color

c) Odor

d) Melting

point/freezing point Melting point/range: -

e) Initial boiling point and boiling range

f) Flammability (solid,gas)

g) Upper/lower flammability or

explosive limits

Upper explosion limit: 7,3 %(V) Lower explosion limit: 4,4 %(V)

h) Flash point -

i) Autoignition temperature

j) Decomposition

temperature k) pH

I) Viscosity Viscosity, kinematic:

Viscosity, dynamic: m) Water solubility n) Partition coefficient:

n-octanol/water

o) Vapor pressurep) Density

Relative density

q) Relative vapor density

r) Particle characteristics

s) Explosive properties

t) Oxidizing properties

9.2 Other safety information

No data available

No data available No data available

119 °C - lit.

70 - 71 °C - lit. No data available

1 °C - c.c.

No data available

No data available No data available No data available No data available 0,382 g/l at 25 °C - soluble

No data available No data available 1,398 g/cm3 at 25 °C - lit. No data available

No data available

No data available No data available

None

# **SECTION 10: Stability and reactivity**

10.1 Reactivity

Vapors may form explosive mixture with air.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

Contains the following stabilizer(s):

propylene oxide (<=0,1 %)

10.3 Possibility of hazardous reactions

Violent reactions possible with:

Exothermic reaction with:

Oxidizing agents

Alkali metals

Alkaline earth metals

Light metals

amides

Powdered metals

10.4 Conditions to avoid

May polymerize on exposure to light. Exposure to moisture. Exposure to air.

Warming.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

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# **SECTION 11: Toxicological information**

11.1 Information on toxicological effects

Acute toxicity

Acute toxicity estimate Oral - 200 mg/kg

(Calculation method)

LD50 Oral - Rat - male and female - 200 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Inhalation - 4 h - 2,41 mg/l - vapor(Calculation method)

LC50 Inhalation - Rat - male and female - 4 h - 2,41 mg/l - vapor

(OECD Test Guideline 403)

Acute toxicity estimate Dermal - > 2.000 mg/kg

(Calculation method) Skin corrosion/irritation

Skin - Rabbit

Result: Causes burns.

(OECD Test Guideline 404) Serious eye damage/eye irritation

Remarks: Causes serious eye damage.

Respiratory or skin sensitization

Freund's complete adjuvant test - Guinea pig

Result: negative

(OECD Test Guideline 406) Germ cell mutagenicity Test Type: Ames test Test system: S. typhimurium

Metabolic activation: with and without metabolic activation

Method: US-EPA Result: positive

Test Type: Micronucleus test

Species: Mouse Application Route: Oral Method: US-EPA Result: negative Carcinogenicity No data available Reproductive toxicity No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available Aspiration hazard No data available 11.2 Additional Information

RTECS: UC7090000

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption:

Headache

Drowsiness

Unconsciousness

cardiovascular disorders

narcosis

Absorption may result in damage of the following:

Liver

Kidney

Other dangerous properties can not be excluded.

This substance should be handled with particular care.

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# **SECTION 12: Ecological information**

12.1 Toxicity

Toxicity to fish static test LC50 - Carassius auratus (goldfish) - 0,8 mg/l - 24 h

Remarks: (ECHA)

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata - 0,087 mg/l - 72

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(OECD Test Guideline 201)

12.2 Persistence and degradability

Biodegradability Result: - Readily biodegradable.

Remarks: (External MSDS) 12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not

conducted

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Biological effects:

Forms toxic mixtures in water, dilution measures notwithstanding.

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.

## **SECTION 14: Transport information**

14.1 UN number ADR/RID: 1099

IMDG: 1099

IATA: 1099

14.2 UN proper shipping name ADR/RID: ALLYL BROMIDE IMDG: ALLYL BROMIDE

IATA: Allyl bromide

Passenger Aircraft: Not permitted for transport

Cargo Aircraft: Not permitted for transport

14.3 Transport hazard class(es)

ADR/RID: 3 (6.1) IMDG: 3 (6.1)

14.4 Packaging group ADR/RID: I

IMDG: I IATA: I

14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes

IATA: no

IATA: 3 (6.1)

14.6 Special precautions for user Tunnel restriction code: (C/E) Further information: No data available

# **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use

REACH - Candidate List of Substances of Very

High Concern for Authorisation (Article 59).

: propylene oxide

REACH - Restrictions on the manufacture,

placing on the market and use of certain

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dangerous substances, mixtures and articles

(Annex XVII)

propylene oxide

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous

substances.

: ACUTE TOXIC

: ENVIRONMENTAL HAZARDS

: FLAMMABLE LIQUIDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

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.

