

# Otto Chemie Pvt Ltd

An ISO 9001 : 2015 & GMP Certified Company  
Office : No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road,  
Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)  
Tel : + 91 98200 41841 Email : [info@ottokemi.com](mailto:info@ottokemi.com) Web : [www.ottokemi.com](http://www.ottokemi.com)

## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Product identifiers

Product Name : sec-Butyl alcohol, GR 98%+  
Product Code : B 2307  
CAS No: 78-92-2

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

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 3), H226

Eye irritation (Category 2), H319

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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 Warning

Hazard statement(s)

H226

Flammable liquid and vapour.

H319

Causes serious eye irritation.

Hazardous ingredients according to Regulation

H335

May cause respiratory irritation.

H336

May cause drowsiness or dizziness.

Precautionary statement(s)

P210

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

P280

Wear eye protection/ face protection.

P304 + P340 + P312

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a  
POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if  
present and easy to do. Continue rinsing

P337 + P313

If eye irritation persists: Get medical advice/ attention.

P403 + P235

Store in a well-ventilated place. Keep cool.

Supplemental Hazard

Statements

none

2.3 Other hazards

ignition sources. No smoking. Wear eye protection/ face protection.

toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### SECTION 3: Composition/information on ingredients

3.1 Substances Synonyms : sec-Butyl alcohol

Formula : C<sub>4</sub>H<sub>10</sub>O

Molecular weight : 74,12 g/mol

CAS-No. : 78-92-2

EC-No. : 201-158-5

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| Component       | Classification       | Concentration  |
|-----------------|----------------------|--|
| Butan-2-ol      |                      |  |
| CAS-No<br>EC-No | 78-92-2<br>201-158-5 | Flam. Liq. 3; Eye Irrit. 2; STOT<br>SE 3; H226, H319, H336H335 |
|                 |                      | <= 100 %   |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. In case of skin contact

Wash off with soap and plenty of water. Consult a physician. In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with

water. Consult a physician.

### 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

### 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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

#### Carbon oxides

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

Use water spray to cool unopened containers.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### 6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Flammable liquids

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under

appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique

(without touching glove's outer surface) to avoid skin contact with this product. Dispose of

contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Body

Protection

impervious clothing, Flame retardant antistatic protective clothing., The type of protective

equipment must be selected according to the concentration and amount of the dangerous

substance at the specific workplace. Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with

multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to

engineering controls. If the respirator is the sole means of protection, use a full-face supplied air

respirator. Use respirators and components tested and approved under appropriate government

standards such as NIOSH (US) or CEN (EU). Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance Form:

liquid

b) Odour

No data available

c) Odour Threshold

No data available

d) pH

No data available

e) Melting point/freezing point

Melting point/range: -115 °C - lit.

f) Initial boiling point and

98 -100°C

- lit. boiling range

g) Flash point

27 °C - closed cup

h) Evaporation rate

No data available

i) Flammability (solid, gas)

No data available

j) Upper/lower

Upper explosion limit: 9,8 %(V)

flammability or

Lower explosion limit: 1,7 %(V)

explosive limits

k) Vapour pressure

15,3 hPa at 20 °C

24,4 hPa at 25 °C

l) Vapour density

2,56 - (Air = 1.0)

m) Relative density

0.805-0.807 g/cm<sup>3</sup> at 20 °C

n) Water solubility soluble

o) Partition coefficient:

n- log Pow: 0,146

octanol/water

p) Auto-ignition

No data available

temperature

q) Decomposition

No data available

temperature

r) Viscosity

No data available

s) Explosive properties

No data available

t) Oxidizing properties

No data available

### 9.2 Other safety information

Surface tension

Relative vapour density

23 mN/m at 20 °C

2,56 - (Air = 1.0)

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions. 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

acids, Acid chlorides, Acid anhydrides, Oxidizing agents, Halogens, Peroxides

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

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. Eye 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

Toxicity to daphnia and  
other aquatic  
invertebrates

LC50 - Pimephales promelas (fathead minnow) - 3.670 mg/l - 96 h

static test LC50 - Leuciscus idus melanotus - 3.520 - 3.540 mg/l - 48 h

EC50 - Daphnia magna (Water flea) - 4.227 mg/l - 48 h

### 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 5 d

Result: 86 % - Readily biodegradable

### 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 Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal

company. Contaminated packaging

Dispose of as unused product.

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## SECTION 14: Transport information

|                                   |                           |            |
|-----------------------------------|---------------------------|------------|
| 14.1 UN number                    |                           |            |
| ADR/RID: 1120                     | IMDG: 1120                | IATA: 1120 |
| 14.2 UN proper shipping name      |                           |            |
| ADR/RID: BUTANOLS                 |                           |            |
| IMDG: BUTANOLS                    |                           |            |
| IATA: BUTANOLS                    |                           |            |
| 14.3 Transport hazard class(es)   |                           |            |
| ADR/RID: 3                        | IMDG: 3                   | IATA: 3    |
| 14.4 Packaging group              |                           |            |
| ADR/RID: III                      | IMDG: III                 | IATA: III  |
| 14.5 Environmental hazards        |                           |            |
| ADR/RID: no                       | IMDG Marine pollutant: no | IATA: no   |
| 14.6 Special precautions for user |                           |            |
| No data available                 | IMDG:                     |            |

## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

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

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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