

# OTTO CHEMIE PVT LTD

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](mailto:info@ottokemi.com) Web : [www.ottokemi.com](http://www.ottokemi.com)

## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1. Product identifiers

Product name: Isobutylaldehyde, 98%  
Product Code: I 1571  
CAS No : 78-84-2

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  
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Chinchpada, Vasai East, Waliv, Maharashtra 401208.  
Email [info@ottokemi.com](mailto: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

Flammable liquids, (Category 2)

Eye irritation, (Category 2)

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word

Hazard Statements

H225

H319

Precautionary Statements

P210

P233

P240

P241

P242

P305 + P351 + P338

Supplemental Hazard  
Statements

Reduced Labeling (<= 125 ml)

Pictogram

Signal Word

Hazard Statements

Precautionary Statements

Supplemental Hazard

Statements

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.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine

H225: Highly flammable liquid and vapor.

H319: Causes serious eye irritation.

Danger

Highly flammable liquid and vapor.

Causes serious eye irritation.

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

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof electrical/ ventilating/ lighting/ equipment.

Use non-sparking tools.

IF IN EYES: Rinse cautiously with water for several minutes.

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

none

Danger

none

none

none

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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.  
Stench.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms : 2-Methylpropionaldehyde  
Formula : C<sub>4</sub>H<sub>8</sub>O  
Molecular weight : 72,11 g/mol  
CAS-No. : 78-84-2  
EC-No. : 201-149-6

Component	Classification	Concentration
isobutyraldehyde		
CAS-No. 78-84-2 EC-No. 201-149-6	Flam. Liq. 2; Eye Irrit. 2; H225, H319	<= 100 %

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. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). 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 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

Carbon dioxide (CO<sub>2</sub>) Foam 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

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

In the event of fire, wear self-contained breathing apparatus.

### 5.4 Further information

Remove container from danger zone and cool with water. 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  
Change contaminated clothing. Wash hands 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 stability Recommended storage temperature  
2 - 8 °C  
Stench. Air sensitive. Store under inert gas.  
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](http://www.kcl.de)).  
Splash contact  
Material: butyl-rubber  
Minimum layer thickness: 0,7 mm  
Break through time: 60 min  
Material tested: Butoject® (KCL 898)  
Body Protection  
Flame retardant antistatic protective clothing.  
Respiratory protection  
required when vapours/aerosols are generated.  
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

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Recommended Filter type: Filter type AX

The entrepreneur 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	clear, liquid
b) Color	colorless
c) Odor	unpleasant
d) Melting	Melting point/ range: -65 °C - lit.
point/freezing point	
e) Initial boiling point and boiling range	63 °C - lit.
f) Flammability (solid, No data available gas)	
g) Upper/lower flammability or explosive limits	Upper explosion limit: 11,0 %(V) Lower explosion limit: 1,6 %(V)
h) Flash point	-24 °C - closed cup - DIN 51755 Part 1
i) Autoignition temperature	180 °C
j) Decomposition temperature	at 1.013,25 hPa - ASTM E-659
k) pH	No data available
l) Viscosity	No data available Viscosity, kinematic: No data available Viscosity, dynamic: 0,43 mPa.s at 20 °C
m) Water solubility	60 g/l at 25 °C - OECD Test Guideline 105
n) Partition coefficient: n-octanol/water	log Pow: 0,77 at 25 °C - Bioaccumulation is not expected.
o) Vapor pressure	88 hPa at 4,4 °C 189 hPa at 20 °C 640 hPa at 50 °C
p) Density	0,79 g/cm3 at 25 °C - lit.
Relative density	No data available
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	Not classified as explosive.
t) Oxidizing properties	none
9.2 Other safety information	
Relative vapor density	2,49 - (Air = 1.0)

## 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) .

### 10.3 Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with:

Strong oxidizing agents

Strong acids

strong reducing agents

Exothermic reaction with:

alkaline substances

Strong bases

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10.4 Conditions to avoid

Warming.

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. 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 static test LC50 - Pimephales promelas (fathead minnow) - 23 mg/l - 96 h

Remarks: (ECHA)

Toxicity to daphnia

and other aquatic

invertebrates

static test EC50 - Daphnia magna (Water flea) - 277 mg/l - 48 h

(Regulation (EC) No. 440/2008, Annex, C.2)

Remarks: (above the solubility limit in the test medium)

Toxicity to algae static test ErC50 - Desmodesmus subspicatus (green algae) - 83,7 mg/l - 72 h

(DIN 38412)

Remarks: (above the solubility limit in the test medium)

Toxicity to bacteria static test NOEC - activated sludge - 100 mg/l - 14 Days

Remarks: (ECHA)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 14 d

Result: 80 - 90 % - Readily biodegradable.

(OECD Test Guideline 301C)

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

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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

No data available

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## SECTION 14: Transport information

14.1 UN number		
ADR/RID: 2045	IMDG: 2045	IATA: 2045
14.2 UN proper shipping name		
ADR/RID : ISOBUTYL ALDEHYDE		
IMDG : ISOBUTYL ALDEHYDE		
IATA : Isobutyl aldehyde		
14.3 Transport hazard class(es)		
ADR/RID: 3	IMDG: 3	IATA: 3
14.4 Packaging group		
ADR/RID: II	IMDG: II	IATA: II
14.5 Environmental hazards		
ADR/RID: no	IMDG Marine pollutant: no	IATA: no
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 for the substance or mixture  
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.  
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.  
P5c FLAMMABLE LIQUIDS  
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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