

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 Web : www.ottokemi.com

Creation Date: 30-06-2026

Revision Date: 25-11-2021

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers

Product Name: Acetaldehyde, 5 M in THF
Product Code: A 6073
CAS No: 75-07-0

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 (REGULATION (EC) No 1272/2008)
Flammable liquids, Category 1

Eye irritation, Category 2
Germ cell mutagenicity, Category 2
Carcinogenicity, Category 1B
Specific target organ toxicity -
single exposure, Category 3,
Respiratory system
2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms
Signal word
Hazard statements

H224: Extremely flammable liquid and vapour.
H319: Causes serious eye irritation.
H341: Suspected of causing genetic defects.
H350: May cause cancer.
H335: May cause respiratory irritation.
:
: Danger
: H224 Extremely flammable liquid and vapour.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H350 May cause cancer.

Precautionary
Statements

:
Prevention:
P210 Keep away from heat, hot surfaces, sparks,
open flames and other ignition sources. No
smoking.
P233 Keep container tightly closed.
P280 Wear protective gloves/ protective clothing/
eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with
water for several minutes. Remove contact
lenses, if present and easy to do. Continue
rinsing.
P308 + P313 IF exposed or concerned: Get medical
advice/ attention.
Storage:
P403 + P233 Store in a well-ventilated place. Keep
container tightly closed.

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Additional Labelling

Reduced Labelling (<= 125 ml)

Hazard pictograms

Signal word

Hazard Statements

H224

H341

H350

Precautionary Statements

P210

other

P233

P280

P308 + P313

P403 + P233

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 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.

May form explosive peroxides.

Photosensitizer.

Lachrymator.

Restricted to professional users.

:

Danger

Extremely flammable liquid and vapour.

Suspected of causing genetic defects.

May cause cancer.

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

Keep container tightly closed.

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

IF exposed or concerned: Get medical advice/ attention.

Store in a well-ventilated place. Keep container tightly closed.

none

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : Ethanal

EC-No. : 200-836-8

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)	M-Factor, SCL, ATE
acetaldehyde	75-07-0 200-836-8	>= 90 - <= 100	

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Show this safety data sheet to the doctor in attendance.

If inhaled : After inhalation: fresh air. Call in physician.

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

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 GHS label elements) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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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

Specific hazards during

fire fighting

Combustible.

Pay attention to flashback.

Vapours 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.

Hazardous combustion

products

Carbon oxides

5.3 Advice for firefighters

Special protective

equipment 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.

Further information : Remove container from danger zone and cool with water.

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

Personal precautions : Advice for non-emergency personnel:

Do not breathe vapours, 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.

Wear appropriate personal protective equipment, as indicated in Section 8.

6.2 Environmental precautions

Environmental

precautions

: Do not let product enter drains.

Risk of explosion.

6.3 Methods and material for containment and cleaning up

Methods for 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. Chemisorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal considerations see section 13.

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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

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.

Temperature class : T4

For precautions see section 2 GHS label elements

7.2 Conditions for safe storage, including any incompatibilities

Further information on

storage conditions

Keep container tightly closed in a dry and wellventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorised persons.

Storage class (TRGS 510) : 3, Flammable liquids

Recommended storage

temperature

2 - 8 °C

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

Occupational Exposure Limits

8.2 Exposure controls

Individual protection measures, such as personal protective equipment (PPE)

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

Tightly fitting safety goggles

Hand protection

Material : butyl-rubber

Break through time : 480 min

Glove thickness : 0,7 mm

Protective index : Full contact

Manufacturer : Butoject® (KCL 898)

Material : butyl-rubber

Break through time : 480 min

Glove thickness : 0,7 mm

Protective index : Splash contact

Manufacturer : Butoject® (KCL 898)

Remarks : 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, D36124 Eichenzell, Internet: www.kcl.de).

Skin and 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.

Recommended Filter type: Filter type AX

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory

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protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Environmental exposure controls

Advice : Do not let product enter drains.

Risk of explosion.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless
Odour	: pungent
Melting point/ range	: -123,5 °C
Boiling point/boiling range	: 21 °C (1.013 hPa)
Flammability	: No data available
Upper explosion limit /	: Upper explosion limit
Upper flammability limit	57 %(V)
Lower explosion limit /	: Lower explosion limit
Lower flammability limit	4 %(V)
Flash point	: -38,89 °C
Autoignition temperature	: Method: closed cup
Decomposition	: 175 °C (1.013 hPa)
temperature	: No data available
pH	: 5 (20 °C)
Viscosity	
Viscosity, dynamic	: 0,24 mPa.s (20 °C)
Viscosity, kinematic	: No data available
Flow time	: No data available
Solubility(ies)	
Water solubility	: completely miscible
Partition coefficient: noctanol/water:	log Pow: 0,63
Bioaccumulation is not expected.	
Vapour pressure	: 1.202 hPa (25 °C)
Relative density	: No data available
Density	: 0,78 g/cm ³ (16 °C)
Relative vapour density	: 1,52 (Air = 1.0)
9.2 Other information	
Explosives	: Not classified as explosive.
Oxidizing properties	: none
Burning rate	: No data available
Self-ignition	: 175 °C
	1.013 hPa
Evaporation rate	: No data available
Molecular weight	: 44,05 g/mol

SECTION 10: Stability and reactivity

10.1 Reactivity

Vapours 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

Hazardous reactions : Avoid exposure to air any longer than necessary so as to prevent peroxide formation.

Stable under recommended storage conditions.

10.4 Conditions to avoid

Conditions to avoid : 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

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

Components:

acetaldehyde:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 31 mg/l

End point: mortality

Exposure time: 96 h

Test Type: static test

Analytical monitoring: yes

Remarks: (ECHA)

Toxicity to daphnia and

other aquatic

invertebrates

EC50 (Daphnia magna (Water flea)): ca. 48,3 mg/l

End point: Immobilization

Exposure time: 48 h

Test Type: static test

Remarks: (ECHA)

Toxicity to algae/aquatic

plants

EC10 (Pseudokirchneriella subcapitata): > 100 mg/l

Exposure time: 72 h

Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

ErC50 (Pseudokirchneriella subcapitata): > 100 mg/l

Exposure time: 72 h

Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

12.2 Persistence and degradability

Components:

acetaldehyde:

Biodegradability : Test Type: aerobic

Inoculum: activated sludge

Concentration: 100 mg/l

Result: Readily biodegradable.

Biodegradation: 80 %

Related to: Biochemical oxygen demand

Exposure time: 14 d

Method: OECD Test Guideline 301C

12.3 Bioaccumulative potential

Components:

acetaldehyde:

Partition coefficient: octanol/water

log Pow: 0,63

Remarks: Bioaccumulation is not expected.

12.4 Mobility in soil

No data available

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12.5 Results of PBT and vPvB assessment

Product:

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

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

14.1 UN number or ID number

ADR

: UN 1089

IMDG

: UN 1089

IATA (Cargo)

: UN 1089

IATA_P (Passenger)

: UN 1089

Not permitted for transport

14.2 UN proper shipping name

ADR

: ACETALDEHYDE

IMDG

: ACETALDEHYDE

IATA (Cargo)

: Acetaldehyde

IATA_P (Passenger)

: Acetaldehyde

Not permitted for transport

14.3 Transport hazard class(es)

Class Subsidiary risks

ADR

: 3

IMDG

: 3

IATA (Cargo)

: 3

IATA_P (Passenger)

: Not permitted for transport

14.4 Packing group

ADR

Packing group

: I

Classification Code

: F1

Hazard Identification

: 33

Number

Labels

: 3

Tunnel restriction code

: (D/E)

IMDG

Packing group

: I

Labels

: 3

EmS Code

: F-E, S-D

IATA (Cargo)

Packing instruction (cargo

: 361

aircraft)

Packing group

: I

Labels

: Class 3 - Flammable liquids

IATA_P (Passenger)

: Not permitted for transport

14.5 Environmental hazards

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ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments
Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

Conditions of restriction for the following entries should be considered:

Number on list 3

Number on list 28:

acetaldehyde

Number on list 40

This substance/mixture shall not be used in aerosol dispensers intended for supply to the general public for entertainment and decorative purposes.

Number on list 75

If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

Not applicable

Regulation (EU) No 2024/590 on substances that deplete the ozone layer

Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast)

Not applicable

REACH - List of substances subject to authorisation (Annex XIV)

Not applicable

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

P5a FLAMMABLE LIQUIDS

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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