

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 Web : www.ottokemi.com

Creation Date :- 18-05-2025

Revision Date :- 01-08-2030

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Tributyl phosphate, 99%
Product Code: T 2025
CAS No : 126-73-8

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

Acute toxicity, (Category 4)

Skin irritation, (Category 2)

Carcinogenicity, (Category 2)

Long-term (chronic) aquatic

hazard, (Category 3)

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word

Hazard Statements

H302

H315

H351

H412

Precautionary Statements

P202

P264

P273

P301 + P312

P302 + P352

P308 + P313

Supplemental Hazard

Statements

Reduced Labeling (<= 125 ml)

Pictogram

Signal Word

Hazard Statements

H351

H412

Precautionary Statements

P202

P308 + P313

Supplemental Hazard

Statements

H302: Harmful if swallowed.

H315: Causes skin irritation.

H351: Suspected of causing cancer.

H412: Harmful to aquatic life with long lasting effects.

Warning

Harmful if swallowed.

Causes skin irritation.

Suspected of causing cancer.

Harmful to aquatic life with long lasting effects.

Do not handle until all safety precautions have been read and understood.

Wash skin thoroughly after handling.

Avoid release to the environment.

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

IF ON SKIN: Wash with plenty of water.

IF exposed or concerned: Get medical advice/ attention.

none

Warning

Suspected of causing cancer.

Harmful to aquatic life with long lasting effects.

Do not handle until all safety precautions have been read and understood.

IF exposed or concerned: Get medical advice/ attention.

none

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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.

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula : C₁₂H₂₇O₄P
Molecular weight : 266,31 g/mol
CAS-No. : 126-73-8
EC-No. : 204-800-2

Component	Classification	Concentration
tributyl phosphate		
CAS-No. 126-73-8 EC-No. 204-800-2	Acute Tox. 4; Skin Irrit. 2; Carc. 2; Aquatic Chronic 3; H302, H315, H351, H412	<= 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. 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 2.2) 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 (CO₂) 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

Oxides of phosphorus

Combustible.

Vapors are heavier than air and may spread along floors.

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Forms explosive mixtures with air on intense heating.
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
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. 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.
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 safe handling
Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.
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
Tightly closed.
Storage class
Storage class (TRGS 510): 10: Combustible 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
Derived No Effect Level (DNEL)
Application Area Routes of exposure
Health effect Value
Worker DNEL,
longterm
inhalation Systemic effects 3,08 mg/m³
Worker DNEL,
longterm
dermal Systemic effects
Worker DNEL,
longterm
inhalation Local effects 3,08 mg/m³
Worker DNEL,
longterm
dermal Local effects 0,44 mg/cm²
Worker DNEL,
acute

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inhalation Systemic effects 12,52 mg/m³

Worker DNEL,

acute

dermal Systemic effects

Worker DNEL,

acute

inhalation Local effects 12,52 mg/m³

Worker DNEL,

acute

dermal Local effects 1,78 mg/cm²

Consumer DNEL,

longterm

inhalation Systemic effects 0,77 mg/m³

Consumer DNEL,

longterm

dermal Systemic effects

Consumer DNEL,

longterm

oral Systemic effects

Consumer DNEL,

longterm

inhalation Local effects 0,77 mg/m³

Consumer DNEL,

longterm

dermal Local effects 0,22 mg/cm²

Consumer DNEL,

acute

inhalation Systemic effects 3,08 mg/m³

Consumer DNEL,

acute

dermal Systemic effects

Consumer DNEL,

acute

oral Systemic effects

Consumer DNEL,

acute

inhalation Local effects 3,08 mg/m³

Consumer DNEL,

acute

dermal Local effects 0,88 mg/cm²

Predicted No Effect Concentration (PNEC)

Compartment Value

Fresh water 0,082 mg/l

Fresh water sediment 18,4 mg/kg

Sea water 0,0082 mg/l

Sea sediment 1,84 mg/kg

Sewage treatment plant 1 mg/l

Soil 3,63 mg/kg

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: butyl-rubber

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Minimum layer thickness: 0,7 mm

Break through time: 480 min

Material tested: Butoject® (KCL 898)

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: Viton®

Minimum layer thickness: 0,7 mm

Body Protection

protective clothing

Respiratory protection

Recommended Filter type: Filter A-(P2)

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state

b) Color

c) Odor

d) Melting

point/freezing point

e) Initial boiling point

and boiling range

f) Flammability (solid, gas)

g) Upper/lower

flammability or

explosive limits

h) Flash point

i) Autoignition

temperature

j) Decomposition

temperature

k) pH

l) Viscosity

m) Water solubility

n) Partition coefficient:

n-octanol/water

o) Vapor pressure

p) Density

Relative density

q) Relative vapor

density

r) Particle

characteristics

s) Explosive properties

t) Oxidizing properties

9.2 Other safety information

Relative vapor

density

liquid

colorless

odorless

Melting point/range: -79 °C - lit.

180 - 183 °C at 29 hPa - lit.

No data available

No data available

145 °C - closed cup

> 482 °C

177 - 178 °C

No data available

Viscosity, kinematic: No data available

Viscosity, dynamic: 3,5 - 4,0 mPa.s at 20 °C

ca.6 g/l at 20 °C

log Pow: 4,0 - Potential bioaccumulation

36 hPa at 178 °C

9,73 hPa at 150 °C

0,979 g/cm³ at 25 °C - lit.

No data available

No data available

No data available

No data available

none

9,19 - (Air = 1.0)

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SECTION 10: Stability and reactivity

10.1 Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

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:

Strong oxidizing agents

Bases

Amines

Acids

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

various plastics

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 LC50 - *Oryzias latipes* (Orange-red killifish) - 4,5 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia

and other aquatic

invertebrates

EC50 - *Daphnia magna* (Water flea) - 1,8 mg/l - 48 h

Remarks: (External MSDS)

Toxicity to algae IC50 - *Desmodesmus subspicatus* (green algae) - 1,1 mg/l - 72 h

Remarks: (ECOTOX Database)

Toxicity to bacteria static test EC50 - activated sludge - > 100 mg/l - 3 h

(OECD Test Guideline 209)

Toxicity to

fish(Chronic toxicity)

flow-through test NOEC - *Oncorhynchus mykiss* (rainbow trout) -

0,82 mg/l - 95 d

(US-EPA)

Toxicity to daphnia

and other aquatic

invertebrates(Chronic

toxicity)

semi-static test NOEC - *Daphnia magna* (Water flea) - 1,3 mg/l - 21

d

Remarks: (ECHA)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 92 % - Readily biodegradable.

(OECD Test Guideline 301D)

12.3 Bioaccumulative potential

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Bioaccumulation Oryzias latipes - 38 d
- 93 µg/l(tributyl phosphate)

Bioconcentration factor (BCF): 21 - 35

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

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

No data available

SECTION 14: Transport information

14.1 UN number

ADR/RID: -

14.2 UN proper shipping name

ADR/RID:

IMDG:

IATA:

14.3 Transport hazard class(es)

ADR/RID: -

14.4 Packaging group

ADR/RID: -

14.5 Environmental hazards

ADR/RID: no

14.6 Special precautions for user

No data available

Further information

Not classified as dangerous in the meaning of transport regulations.

IMDG: -

IATA: -

Not dangerous goods

Not dangerous goods

Not dangerous goods

IMDG: -

IATA: -

IMDG: -

IATA: -

IMDG Marine pollutant: no

IATA: no

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

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

A Chemical Safety Assessment has been carried out for this substance.

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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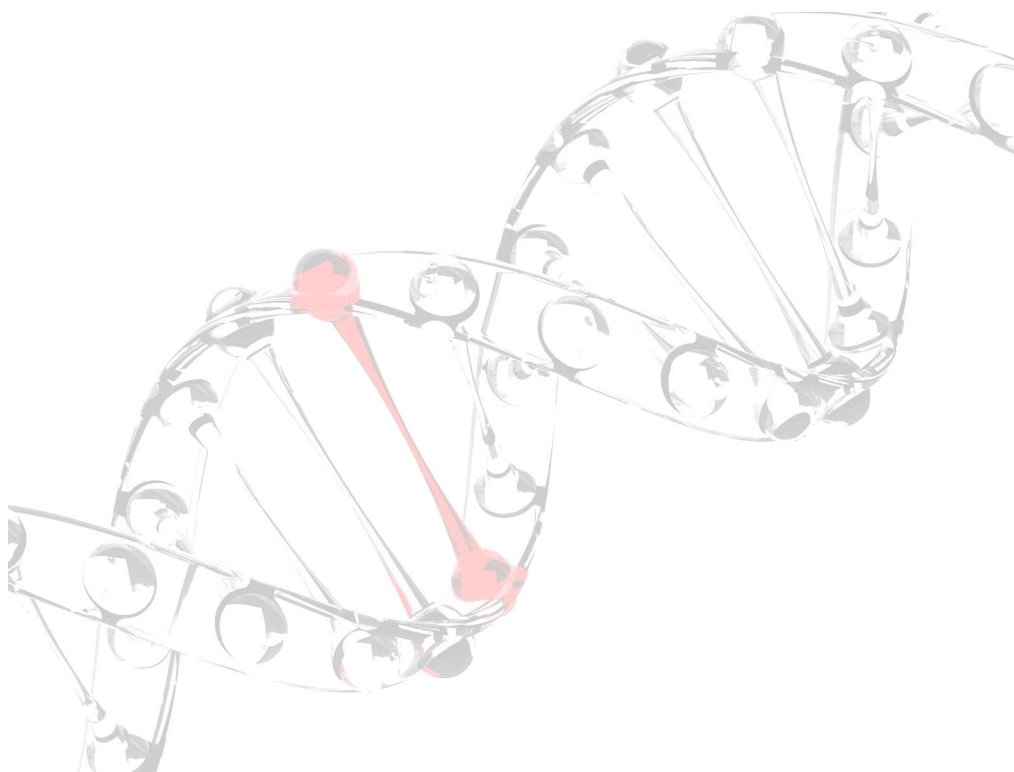
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