

# 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)

Creation Date: 26-06-2025

Revision Date: 25-11-2

## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1. Product identifiers

Product name: Carbon tetrachloride, for spectroscopy, 99%+  
Product Code: C 1624  
CAS No: 56-23-5

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](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

Acute toxicity, (Category 3)

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Skin sensitization, (Sub-category 1B)

Carcinogenicity, (Category 2)

Specific target organ toxicity -  
repeated exposure, (Category 1),  
Liver, Kidney

Long-term (chronic) aquatic  
hazard, (Category 3)

Hazardous to the ozone layer,  
(Category 1)

H301: Toxic if swallowed.

H331: Toxic if inhaled.

H311: Toxic in contact with skin.

H317: May cause an allergic skin reaction.

H351: Suspected of causing cancer.

H372: Causes damage to organs through  
prolonged or repeated exposure if inhaled.

H412: Harmful to aquatic life with long  
lasting effects.

H420: Harms public health and the  
environment by destroying ozone in the  
upper atmosphere.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word

Hazard Statements

H301 + H311 + H331

H317

H351

H372

Danger

Toxic if swallowed, in contact with skin or if inhaled.

May cause an allergic skin reaction.

Suspected of causing cancer.

Causes damage to organs (Liver, Kidney) through prolonged or  
repeated exposure if inhaled.

Harmful to aquatic life with long lasting effects.

Harms public health and the environment by destroying ozone  
in the upper atmosphere.

Precautionary Statements

P273

P280

Avoid release to the environment.

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

P301 + P310

P302 + P352 + P312

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/  
doctor if you feel unwell.

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P304 + P340 + P311	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.
P502	Refer to manufacturer or supplier for information on recovery or recycling.
Supplemental Hazard Statements	none
Reduced Labeling (<= 125 ml)	
Pictogram	
Signal Word	Danger
Hazard Statements	
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure if inhaled.
H420	Harms public health and the environment by destroying ozone in the upper atmosphere.
H412	Harmful to aquatic life with long lasting effects.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
Precautionary Statements	
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302 + P352 + P312	IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.
P304 + P340 + P311	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.
P502	Refer to manufacturer or supplier for information on recovery or recycling.
Supplemental Hazard Statements	none
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.	
Rapidly absorbed through skin.	

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	: Tetrachloromethane
Formula	: CCl <sub>4</sub>
Molecular weight	: 153,82 g/mol
CAS-No.	: 56-23-5
EC-No.	: 200-262-8

Component	Classification	Concentration
Carbon tetrachloride		
CAS-No. 56-23-5 EC-No.200-262-8	Acute Tox. 3; Skin Sens. 1B; Carc. 2; STOT RE 1; Aquatic Chronic 3; Ozone 1; H301, H331, H311, H317, H351, H372, H412, H420 Concentration limits: >= 1 %: STOT RE 1, H372; 0,2 - < 1 %: STOT RE 2, H373;	<= 100 %

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

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## 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

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. 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.

### 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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### 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 chloride gas

Not combustible.

Ambient fire may liberate hazardous vapours.

### 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 carefully with liquid-absorbent material (e.g.

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

### 6.4 Reference to other sections

For disposal 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.

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. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage class

Storage class (TRGS 510): 6.1B: Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

### 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)).

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 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: Nitrile rubber

Minimum layer thickness: 0,4 mm

Break through time: 240 min

Body Protection  
protective clothing

Respiratory protection

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

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 | liquid    |
| b) Color          | colorless |
| c) Odor           | sweet     |

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d) Melting point/freezing point	Melting point/ range: -23 °C - lit.
e) Initial boiling point and boiling range	76 - 77 °C - lit.
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	No data available
i) Autoignition temperature	No data available
j) Decomposition temperature	No data available
k) pH	No data available
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,928 mPa.s at 25 °C 1,321 mPa.s at 0 °C 0,8461 g/l at 20 °C log Pow: 2,83 at 25 °C
m) Water solubility	
n) Partition coefficient: n-octanol/water	
o) Vapor pressure	45 hPa at 0,3 °C 120 hPa at 19,8 °C 14.549 hPa at 24 °C 1,594 g/cm <sup>3</sup> at 25 °C - lit.
p) Density	No data available
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	
Surface tension	26,7 mN/m at 20 °C 19,5 mN/m at 80 °C

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

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

### 10.3 Possibility of hazardous reactions

Risk of explosion with:

Alkali metals

powdered aluminium

Barium

Boranes

calcium silicide

halogen-halogen compounds

peroxi compounds

Fluorine

powdered magnesium

Powdered metals

sodium amide

silanes

silver perchlorate

nitrogen dioxide

alkenes

Oxygen

(as liquefied gas)

Oxygen

with

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alkali hydroxides  
calcium hypochlorite with heat  
Violent reactions possible with:  
Alkaline earth metals  
Dimethylformamide  
aluminium chloride  
with  
triethylaluminium  
10.4 Conditions to avoid  
no information available  
10.5 Incompatible materials  
various plastics, Light metals, metal alloys, Metals  
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 mortality LC50 - Danio rerio (zebra fish) - 24,3 mg/l - 96 h

Toxicity to daphnia

and other aquatic

invertebrates

Immobilization EC50 - Daphnia magna (Water flea) - 35 mg/l - 48 h

(OECD Test Guideline 202)

Toxicity to algae Growth inhibition EC50 - Algae - 20 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to

fish(Chronic toxicity)

NOEC - Danio rerio (zebra fish) - 2,5 mg/l - 14 d

Toxicity to daphnia

and other aquatic

invertebrates(Chronic toxicity)

NOEC - Daphnia magna (Water flea) - 3,1 mg/l - 21 d

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

Bioaccumulation Lepomis macrochirus (Bluegill) - 21 d

- 52,3 µg/l(Carbon tetrachloride)

Bioconcentration factor (BCF): 30

### 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

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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: 1846	IMDG: 1846	IATA: 1846
14.2 UN proper shipping name		
ADR/RID: CARBON TETRACHLORIDE		
IMDG: CARBON TETRACHLORIDE		
IATA: Carbon tetrachloride		
14.3 Transport hazard class(es)		
ADR/RID: 6.1	IMDG: 6.1	IATA: 6.1
14.4 Packaging group		
ADR/RID: II	IMDG: II	IATA: II
14.5 Environmental hazards		
ADR/RID: yes	IMDG Marine pollutant: yes	IATA: no
14.6 Special precautions for user		
Tunnel restriction code	: (D/E)	
Further information	: No data available	
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  
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.  
Authorisations and/or restrictions on use  
Regulation (EU) No 2024/590 on substances that deplete the ozone layer  
: Carbon tetrachloride  
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.  
H2 ACUTE TOXIC  
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.

Creation Date: 26-06-2025

Revision Date: 25-11-2030

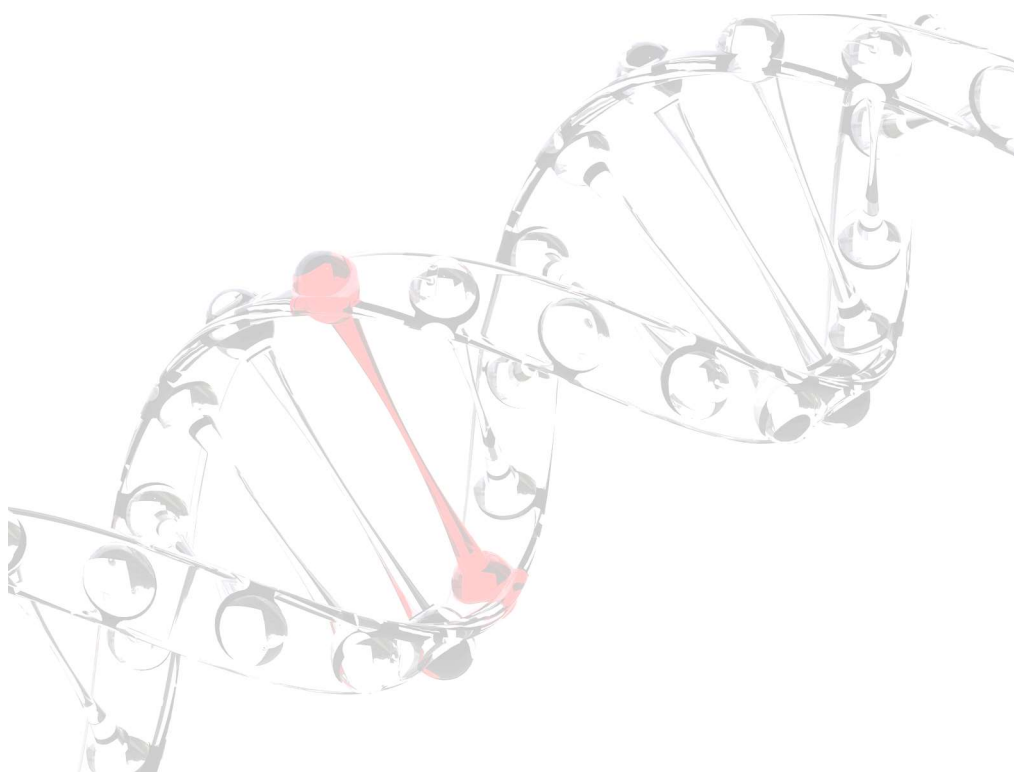
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