



Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

CARBON TETRACHLORIDE AR

PRODUCT CODE : B-3018

CAS No : 56-23-5

FORMULA : CCl_4

UN No : 1846

website : www.labotiq.net

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

CARBON TETRACHLORIDE AR



MSDS Number : 0099

Date : October 14th, 2024

Version : 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product Name** : CARBON TETRACHLORIDE AR
- Synonyms** : Carbontetrachloride Tetrachloromethane, Benziform, benzinofom, carbon chloride, carbon tet., Freon-10, Refrigerant-10, Halon-104, methane tetrachloride, methyl tetrachloride, perchloromethane, Tetraform, Tetrasol
- CAS No.** : 56-23-5
- HS Code** : 2903 14 00
- Chemical Formula** : CCl₄
- Molecular Weight** : 153.82 g/mol
- Product Code** : B-3018
- Brand** : Labotiq
- 1.2 Manufacturer** : Labotiq
- Address** : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
- Website** : www.labotiq.net
- Email** : labotiq.id@gmail.com
- For information** : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
- Emergency number** : +6281316894650
- 1.3 Application** : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Acute toxicity, Oral (Category 3), H301
 Acute toxicity, Inhalation (Category 3), H331
 Acute toxicity, Dermal (Category 3), H311
 Skin sensitization (Sub-category 1B), H317
 Carcinogenicity (Category 2), H351
 Specific target organ toxicity - repeated exposure (Category 1), H372
 Long-term (chronic) aquatic hazard (Category 3), H412
 Hazardous to the ozone layer (Category 1), H420

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
 Hazard statement(s)
 H301 + H311 + H331
 H317
 H351
 H372
 H412

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 through prolonged or repeated exposure.
 Harmful to aquatic life with long lasting effects.

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H420

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

Precautionary statement(s)

P261

Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P273

Avoid release to the environment.

P280

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

P301 + P310 + P330

IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.

P403 + P233

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

P502

Refer to manufacturer/ supplier for information on recovery/ 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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : Tetrachloromethane

Formula : CCl₄

Molecular weight : 153.82 g/mol

CAS-No. : 56-23-5

EC-No. : 200-262-8

Index-No. : 602-008-00-5

3.2 Mixture

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Tetrachloromethane	Acute Tox. 3; Skin Sens. 1B; Carc. 2; STOT RE 1; Acute Tox. 3; Skin Sens. 1B; Carc. 2; STOT RE 1;	<=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

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.

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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

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

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Hydrogen chloride gas

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe 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. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13..

SECTION 7: Handling and storage

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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

8.2 Exposure controls

Personal protective equipment

Appropriat engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipmen

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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm

Break through time: 480 min

Material tested: Vitoject®

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm

Break through time: 240 min

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Material tested: Camatril®

Body Protection

Complete suit protecting against chemicals, 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 fullface 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. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: liquid
	Colour: colourless
Odour	sweet
Odour Threshold	No data available
pH	No data available
Melting point/freezingpoint	Melting point/range: -22,99 °C
Initial boiling point and boiling range	77 °C at 1.013 hPa
Flash point	does not flash
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	45 hPa at 0,3 °C 120 hPa at 19,8 °C 14.549 hPa at 24 °C
Vapour density	No data available
Relative density	1,59 g/cm ³ at 20 °C
Water solubility	0,8461 g/l at 20 °C
Partition coefficient: octanol/water	log Pow: 2,83 at 25 °C
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

9.2 Other safety information

Surface tension	26,7 mN/m at 20 °C 19,5 mN/m at 80 °C
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SECTION 10: Stability and reactivity

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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

No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 2.350 mg/kg

LC50 Inhalation - Rat - 4 h - 8000 ppm

LD50 Dermal - Rabbit - > 20.000 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: Mild

skin irritation - 24 h (Draize Test)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation - 24 h (Draize Test)

Respiratory or skin sensitisation

- Mouse

Result: The product is a skin sensitizer, sub-category 1B.

(OECD Test Guideline 429)

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Limited evidence of carcinogenicity in animal studies

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Tetrachloromethane)

Reproductive toxicity

No data available

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Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure. - Liver, Kidney

Aspiration hazard

No data available

Additional Information

RTECS: FG4900000

Vomiting, Diarrhea, Abdominal pain, Nausea, Dizziness, Headache, Damage to the eyes., Liver injury may occur., Kidney injury may occur., Exposure to and/or consumption of alcohol may increase toxic effects., Contact with skin can cause:, Pain, Erythema, hyperemia To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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)

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 Other adverse effects

Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

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Contaminated packaging
Dispose of as unused product.

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

Passenger Aircraft: Not permitted for transport

Cargo Aircraft: Not permitted for transport

14.3 Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

14.4 Packaging group

ADR/RID: I I

IMDG: I I

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: yes

IATA: no

14.6 Special precautions for user

Further information

No data available

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H301	Toxic if swallowed.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
H311	Toxic in contact with skin.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
H420	Harms public health and the environment by destroying ozone in the upper atmosphere.

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0

Reactivity: 0

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Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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