



Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

1,1,2,2- TETRACHLOROETHANE 98,5% AR

PRODUCT CODE : B-3000

CAS No : 79-34-5

FORMULA : $C_2H_2Cl_4$

UN No : 1702

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

1,1,2,2-TETRACHLOROETHANE 98,5% AR



MSDS Number : 0001

Date : Aug 15th, 2024

Version : 1.0

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

- 1.1 Product Name** : 1,1,2,2-TETRACHLOROETHANE 98,5% AR
Synonyms : Acetylene Tetrachloride, s-Tetrachloroethane
CAS No. : 79-34-5
HS Code : 2903 19 10
Chemical Formula : C₂H₂Cl₄
Molecular Weight : 167.85 g/mol
Product Code : B-3000
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

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture**
Classification according to Regulation (EC) No 1272/2008
 Acute toxicity, Inhalation (Category 2), H330
 Acute toxicity, Dermal (Category 1), H310
 Long-term (chronic) aquatic hazard (Category 2), H411

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

Adverse physicochemical, human health and environmental effects
 No additional information available

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H310 + H330

Fatal in contact with skin or if inhaled.

H411

Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P262

Do not get in eyes, on skin, or on clothing.

P273

Avoid release to the environment.

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P280
P302 + P352 + P310
P304 + P340 + P310

Wear protective gloves/ protective clothing.
IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

Supplemental Hazard Statements none

For use in industrial installations only.
Reduced Labeling (<= 125 ml)
Pictogram



Signal word Danger
Hazard statement(s)
H310 + H330 Fatal in contact with skin or if inhaled.

Precautionary statement(s)
P262
P280
P302 + P352 + P310
P304 + P340 + P310

Do not get in eyes, on skin, or on clothing.
Wear protective gloves/ protective clothing.
IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

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. Rapidly absorbed through skin.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : Acetylene Tetrachloride
Formula : C₂H₂Cl₄
Molecular weight : 163.39 g/mol
CAS-No. : 79-34-5
EC-No. : 201-197-8

3.2 Mixture

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

Component	Classification	Concentration
1,1,2,2-TETRACHLOROETHANE CAS-No. 79-34-5	Acute Tox. 2; Acute Tox. 1; Aquatic Chronic 2; H330, H310, H411	<=100 %

EC-No. 201-197-8 Index-No. 602-015-00-3		
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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.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

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

Symptoms/effects after inhalation :

Fatal if inhaled.

Symptoms/effects after skin contact :

Fatal in contact with skin.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide. Dry powder. Foam. Water spray.

Unsuitable extinguishing media

Do not use extinguishing media containing water

5.2 Special hazards arising from the substance or mixture

No additional information available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary

Protection during firefighting :

Do not enter fire area without proper protective equipment, including respiratory protection.

5.4 Further information

No data available

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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.

For non-emergency personnel

Emergency procedures :
Evacuate unnecessary personnel.

For emergency responders

Protective equipment :
Use personal protective equipment as required.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up :
On land, sweep or shovel into suitable containers. Collect spillage.

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
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Precautions for safe handling

Do not get in eyes, on skin, or on clothing. Avoid contact with skin and eyes. Do not breathe vapours.

Hygiene measures

Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

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

Storage stability

Recommended storage temperature 2 - 8 °C

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

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SECTION 8: Exposure controls/personal protection**8.1 Control parameters****8.2 Exposure control****Appropriat engineering controls**

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

Personal protective equipment**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: 30 min
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 (EN 143) respirator cartridges as a backup to engineering controls. If th 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

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9.1 Information on basic physical and chemical properties

Appearance	Form: liquid, clear
	Colour: colourless
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezingpoint	Melting point/range: -43 °C - lit.
Initial boiling point and boiling range	147 °C - lit.
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	10,7 hPa at 20,0 °C
Vapour density	No data available
Relative density	1.586 g/cm ³ at 25 °C
Water solubility	No data available
Partition coefficient: noctanol/water	log Pow: 5
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

No data available

SECTION 10: Stability and reactivity

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

Direct sunlight. Air contact.

10.5 Incompatible materials

Strong oxidizing agents, Sodium/sodium oxides, Strong bases, Potassium, Nitrates, 2,4-dinitrophenyl disulfide

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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Acute toxicity

LD50 Oral - Rat - 200,0 mg/kg

LC50 Inhalation - Mouse - 2 h - 4.500 mg/m³

Inhalation: No data available

LD50 Dermal - 5 mg/kg

Skin corrosion/irritation

No data available(1,1,2,2-TETRACHLOROETHANE 98,5% AR)

Serious eye damage/eye irritation

No data available(1,1,2,2-TETRACHLOROETHANE 98,5% AR)

Respiratory or skin sensitisation

No data available(1,1,2,2-TETRACHLOROETHANE 98,5% AR)

Germ cell mutagenicity

No data available(1,1,2,2-TETRACHLOROETHANE 98,5% AR)

Carcinogenicity

This product or contains components that have been reported to be possibly carcinogenic according to the IARC, ACGIH, NTP, or EPA classification.

IARC: 2B - Group 2B: Possibly carcinogenic to humans (1,1,2,2-TETRACHLOROETHANE 98,5% AR)

Reproductive toxicity

No data available(1,1,2,2-TETRACHLOROETHANE 98,5% AR)

Specific target organ toxicity - single exposure

No data available(1,1,2,2-TETRACHLOROETHANE 98,5% AR)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(1,1,2,2-TETRACHLOROETHANE 98,5% AR)

Additional Information

RTECS: K18575000

Headache, Nausea, Vomiting, Tremors, Incoordination., fatigue, Dizziness, Anorexia. Blood –

SECTION 12: Ecological information**12.1 Toxicity***Toxicity to fish*

LC50 - Pimephales promelas (fathead minnow) - 20 mg/l - 96.0 h(1,1,2,2- Tetrachloroethane)

Toxicity to daphnia and other aquatic invertebrates Immobilization

EC50 - Daphnia magna (Water flea) - 23 mg/l - 48 h(1,1,2,2- Tetrachloroethane)

12.2 Persistence and degradability

No data available

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12.3 Bioaccumulative potential

Bioaccumulation

Lepomis macrochirus (Bluegill) - 14 d - 0.00962 mg/l(1,1,2,2-TETRACHLOROETHANE 98,5% AR)

Bioconcentration factor (BCF): 8

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

Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product/Packaging disposal

Dispose of contents/container to hazardous or special waste recommendations collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials :

Hazardous waste due to toxicity.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 1702

IMDG: 1702

IATA: 1702

14.2 UN proper shipping name

ADR/RID: 1,1,2,2-TETRACHLOROETHANE 98,5% AR

IMDG: 1,1,2,2-TETRACHLOROETHANE 98,5% AR

IATA: 1,1,2,2-TETRACHLOROETHANE 98,5% AR

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

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

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SECTION 16: Other information

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

H310 Fatal in contact with skin.
H310 + H330 Fatal in contact with skin or if inhaled.
H330 Fatal if inhaled.
H411 Toxic to aquatic life with long lasting effects.

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

Health: 2

Flammability: 1

Reactivity: 0

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.

Version : 1.0

Revision Date : August 15, 2024