

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Tetrachloroethylene v.p.

Revision: 24.04.2025

Product code: AC11.00527

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

1.1. Product identifier

Tetrachloroethylene v.p.

Substance name:	tetrachloroethylene
REACH Registration Number:	01-2119475329-28-XXXX
CAS No:	127-18-4
Index No:	602-028-00-4
EC No:	204-825-9

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Reagents and laboratory chemicals
Only for laboratory and analysis purposes.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Details of the supplier of the safety data sheet

Company name:	AnalytiChem Services, Unipessoal, Lda
Street:	Rua de Júlio Dinis 676 7º
Place:	N-4050-320 Porto
Telephone:	+351 226002917
E-mail:	info@analytichem.com
Contact person:	SDS service department
E-mail:	SDS@analytichem.com
Internet:	www.analytichem.com
Responsible Department:	SDS service department

Supplier or manufacturer details

Company name:	AnalytiChem Belgium NV
Street:	Industriezone "De Arend" 2
Place:	B-8210 Zedelgem
Telephone:	+32 50 28 83 20
E-mail:	info.be@analytichem.com
Contact person:	SDS service department
E-mail:	SDS@analytichem.com
Responsible Department:	AnalytiChem:
	EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20
	EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200
	EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848
	UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500
	USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378
	Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701
	Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333

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1.4. Emergency telephone number:

+353 1 901 4670 (CHEMTREC)

Further Information

No data available

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Carc. 2; H351

Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008**

Signal word: Warning

Pictograms:

**Hazard statements**

H351

Suspected of causing cancer.

H411

Toxic to aquatic life with long lasting effects.

Precautionary statements

P501

Dispose of contents/container to hazardous or special waste collection point.

P201

Obtain special instructions before use.

P202

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

P273

Avoid release to the environment.

P280

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

P308+P313

IF exposed or concerned: Get medical advice/attention.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients**3.1. Substances****Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
127-18-4	tetrachloroethylene			100 %
	204-825-9	602-028-00-4	01-2119475329-28-XXXX	
	Carc. 2, Repr. 2, Aquatic Chronic 2; H351 H361d H411			

Full text of H and EUH statements: see section 16.

Further Information

No data available

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SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection!

After inhalation

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

After ingestion

Never give anything by mouth to an unconscious person or a person with cramps.

Rinse mouth immediately and drink plenty of water.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

4.2. Most important symptoms and effects, both acute and delayed

Irritant

Dizziness

The product causes narcotic-like effects.

Inebriation

Vomiting

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**

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Combustible liquids

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Hazardous combustion products

In case of fire may be liberated:

Carbon dioxide

Carbon monoxide

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Remove persons to safety. Do not inhale explosion and combustion gases.

Avoid contact with skin, eyes and clothes.

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In case of fire: Wear self-contained breathing apparatus.

Use water spray jet to protect personnel and to cool endangered containers.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

Heating causes rise in pressure with risk of bursting.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Vapours can form explosive mixtures with air.

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

To follow: Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

Danger of explosion

6.3. Methods and material for containment and cleaning up**For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Collect in closed and suitable containers for disposal.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Read label before use.

Handle and open container with care.

Use personal protection equipment.

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Avoid contact with skin, eyes and clothes.
Do not breathe dust/fume/gas/mist/vapours/spray.
Provide adequate ventilation.
Use extractor hood (laboratory).

Advice on protection against fire and explosion

Take precautionary measures against static discharges.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).

Advice on general occupational hygiene

Keep away from: Food and feedingstuffs
When using do not eat, drink, smoke, sniff.
Provide eye shower and label its location conspicuously
In the immediate working surroundings there must be: Emergency shower installed

Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.
If handled uncovered, arrangements with local exhaust ventilation have to be used.
Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

National regulations

Further information on storage conditions

Store in a dry place.
Store in a well-ventilated place.

7.3. Specific end use(s)

The product is intended for research, analysis and scientific education.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
127-18-4	Perchloroethylene (Tetrachloroethylene)	20	138		TWA (8 h)	
		40	275		STEL (15 min)	
127-18-4	Tetrachloroethylene	20	138		TWA (8 h)	
		40	275		STEL (15 min)	

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Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
127-18-4	Tetrachloroethylene	Tetrachloroethylene	0.4 mg/L	Blood	Prior to the last shift of a working week
		Tetrachloroethylene	(3ppm) 0.435 mg/m ³	End-exhaled air	Prior to the last shift of a working week

Additional advice on limit values

Observe in addition any national regulations!

8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaust at critical locations.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Individual protection measures, such as personal protective equipment**Eye/face protection**

goggles

Face protection umbrella

Hand protection

Tested protective gloves must be worn

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

Take off immediately all contaminated clothing and wash it before reuse.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Thermal hazards

No data available

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	light yellow
Odour:	No data available
Odour threshold:	No data available
Melting point/freezing point:	-22 °C
Boiling point or initial boiling point and boiling range:	121 °C
Flammability:	No data available
Lower explosion limits:	No data available

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Upper explosion limits:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	No data available
Viscosity / kinematic:	No data available
Water solubility:	No data available
Solubility in other solvents	
No data available	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	1,623 g/cm ³
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

Vapours can form explosive mixtures with air.

Sustained combustibility:

No data available

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

No data available

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

No data available

Flow time:

No data available

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapours can form explosive mixtures with air.

10.2. Chemical stability

Protect against: Radiant heat.

10.3. Possibility of hazardous reactions

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Oxidising agent

10.4. Conditions to avoid

Radiant heat.

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Based on available data, the classification criteria are not met.

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer. (tetrachloroethylene)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other information

No data available

Further information

No data available

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SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Discharge into the environment must be avoided.

Further information

Do not allow to enter into surface water or drains.

Explosion risk.

SECTION 13: Disposal considerations

13.1. Waste treatment methods**Disposal recommendations**

Do not allow to enter into surface water or drains.

Send to a physico-chemical treatment facility under observation of official regulations.

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 1897
14.2. UN proper shipping name:	TETRACHLOROETHYLENE
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1
Classification code:	T1
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	2
Hazard No:	60
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 1897
14.2. UN proper shipping name:	TETRACHLOROETHYLENE
14.3. Transport hazard class(es):	6.1

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14.4. Packing group:

Hazard label: III
 Classification code: 6.1
 Special Provisions: T1
 Limited quantity: 802
 Excepted quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1897
14.2. UN proper shipping name: TETRACHLOROETHYLENE
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
 Hazard label: 6.1
 Marine pollutant: P
 Special Provisions: -
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-A
 Segregation group: 10 - liquid halogenated hydrocarbons

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1897
14.2. UN proper shipping name: TETRACHLOROETHYLENE
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
 Hazard label: 6.1
 Limited quantity Passenger: 2 L
 Passenger LQ: Y642
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 655
 IATA-max. quantity - Passenger: 60 L
 IATA-packing instructions - Cargo: 663
 IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes
 Danger releasing substance: tetrachloroethylene

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):
 Entry 3, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): E2 Hazardous to the Aquatic Environment

Additional information

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
 Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

National regulatory information

SECTION 16: Other information

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Abbreviations and acronyms

Carc. 2: Carcinogenicity, hazard category 2

Repr. 2: Reproductive toxicity, hazard category 2

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard category: Chronic 2

Relevant H and EUH statements (number and full text)

H351 Suspected of causing cancer.

H361d Suspected of damaging the unborn child.

H411 Toxic to aquatic life with long lasting effects.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.