# SAFETY DATA SHEET

Version: v1 Revision Date: 2024-01-10 Print Date: 2024-01-17

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

# 1.1 Product identifiers

Product name	: Tetrachloroethylene
Product Number	: T431685
Brand	: aladdin
CAS-No.	: 127-18-4

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

Identified uses : Laboratory chemicals,Manufacture of substance	Identified uses	: Laboratory chemicals,Manufacture of substances
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# 1.3 Company

Company	: ALADDIN SCIENTIFIC CORPORATION
Address	: 14078 Meridian Parkway,
Riverside, CA. 92518	
Telephone	: +1 (833) 552-7181
Fax	: no data available

# 1.4 Emergency telephone number

CHEMTREC®, Inside the USA	: 1-800-424-9300
CHEMTREC®, Outside the USA	:

# **SECTION 2: Hazards identification**

# 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Skin sensitisation (Category 1), H317

Carcinogenicity (Category 2), H351

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

Long-term (chronic) aquatic hazard (Category 2), H411

# 2.2 GHS Label elements, including precautionary statements



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Pictogram

Signal word



- gran ri er e	
Hazard statement(s)	
H303	May be harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H350	May cause cancer
H411	Toxic to aquatic life with long lasting effects
Precautionary statement(s)	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and] thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P312	Call a POISON CENTER or doctor/ if you feel unwell.
P337	If eye irritation persists:
P391	Collect spillage.
P302+P352	IF ON SKIN: wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	$\operatorname{IF}$ IN EYES: Rinse cautiously with water for several minutes. Remove contact
	lenses if present and easy to do - continue rinsing.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

# **SECTION 3: Composition/information on ingredients**

# 3.1 Substances

Synonyms	: Ethylene tetrachloride, Perchloroethylene, PCE, Tetrachloroethylene
Formula	: C2Cl4
Molecular weight	: 165.83
CAS No.	: 127-18-4

EC-NO.	: 204-825-9	
Component	Classification	Concentration
Tetrachloroethylene		
	H303, H315, H319, H317, H350, H336, H401, H411	UV/VIS spectroscopy Grade

# **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. 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. Unsuitable extinguishing media no data available

### 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



Use water spray to cool unopened containers.

### **SECTION 6: Accidental release measures**

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, 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**

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

## 7.3 Specific end use(s)

no data available

### SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate

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government standards such as NIOSH (US) or EN166(EU).

Skin protection

Gloves must be checked before use. Please use proper methods to remove the gloves (do not touch the outer surface of the gloves), and avoid any skin parts contacting the product. After use, please handle the contaminated gloves carefully according to relevant laws and regulations and effective laboratory rules and procedures. Please clean and blow dry the protective gloves selected for your hands must meet the specifications given in regulation (EU) 2016 / 425 and the en 374 standard derived from it. Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., 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 multipurpose 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.

# **SECTION 9: Physical and chemical properties**

# 9.1 Information on basic physical and chemical properties

a) Appearance	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or	
explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
<ul> <li>o) Partition coefficient: n-octanol/water</li> </ul>	
p) Auto-ignition temperature	no data available
	no data available
q) Decomposition temperature	
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

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### 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

no data available

### 10.5 Incompatible materials

Strong oxidizing agents, Strong bases

## 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas Other decomposition products - No data available In the event of fire: see section 5

## **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

Acute toxicity LD50 Oral - Rat - female - 3.385 mg/kg

(OECD Test Guideline 401)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation Skin - Rabbit Result: Skin irritation - 4 h(OECD Test Guideline 404) Serious eye damage/eye irritation Eyes - Rabbit Result: Mild eye irritation - 24 h Respiratory or skin sensitisation - Mouse Result: May cause sensitisation by skin contact. (OECD Test Guideline 429) Germ cell mutagenicity Hamster ovary Result: negative OECD Test Guideline 474 Mouse - male Result: negative

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> Carcinogenicity no data available Reproductive toxicity no data available Specific target organ toxicity - single exposure May cause drowsiness or dizziness. Specific target organ toxicity - repeated exposure no data available Aspiration hazard no data available Additional Information Additional Information Repeated dose toxicity - Mouse - female - Oral - Lowest observed adverse effect level - 390 mg/kg

RTECS: Not available narcosis, Liver injury may occur., Kidney injury may occur.

# SECTION 12: Ecological information

# 12.1 Toxicity

Toxicity to fish flow-through test

LC50 - Oncorhynchus mykiss (rainbow trout) - 5 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 7,50 mg/l - 48 h

Toxicity to algae static test

EC50 - Skeletonema costatum - > 16 mg/l - 7 h

### 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d Result: 11 % - Not readily biodegradable. (OECD Test Guideline 301C)

## 12.3 Bioaccumulative potential

Bioaccumulation Lepomis macrochirus (Bluegill) - 21 d - 0,00343 mg/l(Tetrachloroethylene) Bioconcentration factor (BCF): 49

## 12.4 Mobility in soil

no data available

# 12.5 Results of PBT and vPvB assessment

no data available

# 12.6 Other adverse effects



Toxic to aquatic life with long lasting effects.

# SECTION 13:

## 13.1 Disposal considerations

### Product

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging

Dispose of as unused product.

# SECTION 14: Transport information

DOT (US)				
UN number: 1897	Packing group: III	Class: 6.1		
Proper shipping name:	Reportable Quantity(RQ): no data	Poison Inhalation Hazard: no data		
TETRACHLOROETHYLENE	available	available		
Environmental Hazards: no				
IMDG				
UN number: 1897	Packing group: III	EMS-No: no data available		
Proper shipping name: TETRACHLOROETHYLENE				
ΙΑΤΑ				
UN number: 1897	Packing group: III	Class: 6.1		
Proper shipping name: TETRACHLC	ROETHYLENE			

# SECTION 15: Regulatory information

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

# **SECTION 16: Other information**

Prepared By	Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: QualityAssurance@aladdinsci.com
Creation Date	10-Oct-2023
Revision Date	10-Jan-2024
Print Date	17-Jan-2024
Revision Summary	SDS sections updated v1



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