

SAFETY DATA SHEET

Version: v1

Revision Date: 2024-01-10

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

1.1 Product identifiers

Product name : Trichloroethylene solution
Product Number : T100718
Brand : aladdin
CAS-No. : 79-01-6(Methanol)

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

Identified uses : Laboratory chemicals, Manufacture of substances.

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)

Flammable liquids (Category 2), H225

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 3), H311

Carcinogenicity (Category 1B), H350

Specific target organ toxicity - single exposure (Category 1), Eyes, Central nervous system, H370

2.2 GHS Label elements, including precautionary statements

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Pictogram



Danger

Signal word

Hazard statement(s)

H225

Highly Flammable liquid and vapor

H350

May cause cancer

H370

Causes damage to organs

H301+H311+H331

Toxic if swallowed, in contact with skin or if inhaled

Precautionary statement(s)

P201

Obtain special instructions before use.

P210

Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.

P202

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

P233

Keep container tightly closed.

P240

Ground/bond container and receiving equipment.

P241

Use explosion-proof [electrical/ventilating/lighting/.../] equipment.

P242

Use only non-sparking tools.

P243

Take precautionary measures against static discharge.

P260

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

P264

Wash hands [and ...] thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P271

Use only outdoors or in a well-ventilated area.

P280

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

P303+P361+P353

IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].

P308+P311

IF exposed or concerned: Call a POISON CENTER/doctor/...

P370+P378

In case of fire: Use ... to extinguish.

P405

Store locked up.

P403+P233

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

P403+P235

Store in a well-ventilated place. Keep cool.

P501

Dispose of contents/container to an approved waste disposal plant.

P301+P310+P330

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

P304+P340+P311

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

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Synonyms	: Trichloroethene Ethinyl trichloride TCE
Formula	: no data available
Molecular weight	: no data available

Component	Classification	Concentration
Methanol		
CAS-No. : 67-56-1	Flam. Liq. 2; Acute Tox. 3; STOT SE 1; H225, H301, H331, H311, H370	
EC-No. :	Concentration limits: >= 10 %: STOT SE 1, H370; 3 - < 10 %: STOT SE 2, H371	
Trichloroethylene		
CAS-No. : 79-01-6	Skin corrosion/irritation category 2; serious eye damage/eye irritation category 2A; skin allergy category 1; germ cell mutagenicity category 2; carcinogenicity category 1B; specific target organ toxicity (single exposure) category 3; acute (Short-term) Aquatic hazard category 3; Long-term aquatic hazard category 3; H315, H319, H317, H341, H350, H336, H402, H412	
EC-No. : 201-167-4	Concentration limit: >= 20 %: STOT SE 3, H336;	

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

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

In case of skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

In case of eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

If swallowed

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Phone: +1 (833) 552-7181 Email: QualityAssurance@aladdinsci.com Website: <https://www.aladdinsci.com/>

Suitable extinguishing media

Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Carbon oxides Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

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. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low 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.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid exposure - obtain special instructions before use. Advice on safe handling Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. 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

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.

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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

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Personal protective equipment

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flamm resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use.

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.

Body Protection

Wear fire/flamm resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use.

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.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Control of environmental exposure

Don't let products enter the sewer.

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	-86°C
f) Initial boiling point and boiling range	87°C
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

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l) Vapour density	no data available
m) Relative density	0.7915
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	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

Violent reactions possible with: Oxygen (as liquefied gas) Alkaline earth metals alkali amides semimetallic hydrogen compounds perchloric acid Light metals aluminium chloride Strong oxidizing agents potassium nitrate Risk of explosion with: Alkali metals Aluminum Barium alkali hydroxides Lithium magnesium Powdered metals sodium amide Strong oxidizing agents nitrogen dioxide Boranes Oxygen with alkali hydroxides Oxygen with Pressure Risk of ignition or formation of inflammable gases or vapours with: Titanium Beryllium Epoxy constituents

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

various plastics

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LC50 Inhalation - Rat - male - 4 h - 67.41 mg/l Remarks: (ECHA)

LD50 Dermal - Rabbit - > 20,000 mg/kg

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Skin corrosion/irritation

Skin - Rabbit Result: Skin irritation (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit Result: Eye irritation - 24 h Remarks: (RTECS)

Respiratory or skin sensitisation

Local lymph node assay (LLNA) - Mouse Result: positive (OECD Test Guideline 429)

Germ cell mutagenicity

In vitro tests showed mutagenic effects Test Type: Ames test Test system: *S. typhimurium* Method: OECD Test

Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: mouse

lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Result: negative Remarks: (ECHA) Test Type: in vivo

assay Species: Mouse Result: negative Remarks: (ECHA)

Carcinogenicity

Possible human carcinogen

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish flow-through test LC50 - *Jordanella floridae* - 28.3 mg/l - 96 h (US-EPA)

Toxicity to daphnia and other aquatic invertebrates Remarks: No data available (trichloroethylene)

Toxicity to algae ErC50 - *Chlamydomonas reinhardtii* (green algae) - 36.5 mg/l - 72 h Remarks: (ECHA)
(trichloroethylene)

Toxicity to bacteria

Toxicity to fish(Chronic toxicity) flow-through test NOEC - *Jordanella floridae* (flagfish) - 5.76 mg/l - 10 d Remarks:
(ECHA)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d Result: 19 % - Not readily biodegradable. (OECD Test Guideline 301D)

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12.3 Bioaccumulative potential

Bioaccumulation *Lepomis macrochirus* - 14 d (trichloroethylene) Bioconcentration factor (BCF): 17

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 1230

Proper shipping name: Methanol

Environmental Hazards: NO

IMDG

UN number: 1230

Proper shipping name: Methanol

IATA

UN number: 1230

Proper shipping name: Methanol

Packing group: II

Reportable Quantity(RQ): no data available

Packing group: II

Packing group: II

Class: 3 (6.1)

Poison Inhalation Hazard: no data available

EMS-No: no data available

Class: 3 (6.1)

SECTION 15: Regulatory information

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

SECTION 16: Other information

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SDS sections updated v1

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