

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Trichloroethylene (TCE) ACS Grade
Synonyms: 1,1,2-trichloroethene, Trichloroethylene (TCE)
CAS Number: 79-01-6
Grade/Purity: ACS Reagent Grade
Product Type: Solvents
Product Use: Industrial, Manufacturing or Laboratory use
Manufacturer/Supplier: Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574
Information: 512-365-6838 | www.alliancechemical.com
Emergency: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Signal Word: Danger

GHS Pictograms:



Hazard Statements:

H315	Causes skin irritation
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects
H350	May cause cancer
H412	Harmful to aquatic life with long lasting effects

Precautionary Statements:

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, vapours or spray.
P264	Wash hands and face thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves, protective clothing, and eye/face protection.
P281	Use personal protective equipment as required.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice or attention.
P312	Call a POISON CENTER or doctor if you feel unwell.
P321	Specific treatment (see first-aid information on this label).
P332+P313	If skin irritation occurs: Get medical advice or attention.

P337+P313	If eye irritation persists: Get medical advice or attention.
P362	Take off contaminated clothing and wash before reuse.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents and container in accordance with local, regional, national, and international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	% MIN	% MAX	CAS #	EINECS# / ELINCS#	FORMULA	MOLECULAR WEIGHT
Trichloroethylene	99.5	100	79-01-6	201-167-4	C ₂ HCl ₃	131.38 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention immediately.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash with soap. Get medical attention immediately.
Inhalation	Move person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Suitable Media	Use water spray, alcohol-resistant foam, dry chemical, or CO ₂ . Use measures appropriate to local circumstances.
Unsuitable Media	Do not use a solid water stream as it may scatter and spread fire.
Protective Equipment	Wear self-contained breathing apparatus and full protective clothing.
Combustion Products	May include carbon oxides and other toxic fumes. See Section 10.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental	Prevent leakage or spillage from entering drains, sewers, or waterways.
Containment & Cleanup	Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations.

7. HANDLING AND STORAGE

Safe Handling	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
Safe Storage	Store in a cool, dry, well-ventilated area. Keep away from incompatible materials (see Section 10). Keep containers tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

Occupational Exposure Limits:

AGENCY	EXPOSURE LIMIT
OSHA PEL	100 ppm TWA / 200 ppm acceptable ceiling / 300 ppm 5-min peak
NIOSH REL	Ca (carcinogen — minimize occupational exposure)
IDLH	1000 ppm

Eyes	Wear chemical safety goggles or face shield.
Skin	Wear chemical-resistant gloves and protective clothing.
Inhalation	Use a NIOSH-approved air-purifying respirator with cartridges appropriate for the contaminant. For higher exposures or confined spaces, use supplied-air or a powered air-purifying respirator (PAPR).

Exposure limits sourced from NIOSH Pocket Guide and OSHA 29 CFR 1910.1000. Hazard classification from ECHA Classification and Labelling Inventory (CLP Annex VI).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless volatile liquid
Odor	Ethereal odor
Particle Characteristics	Not Applicable
pH	Not Available
Melting Point	-99 °F (NTP, 1992)
Boiling Point	189 °F at 760 mmHg (NTP, 1992)
Flash Point	greater than 200 °F (NTP, 1992)
Vapor Pressure	60 mmHg at 68 °F ; 77 mmHg at 77 °F (NTP, 1992)
Specific Gravity	1.46
Solubility	Soluble in water, alcohol, ether, and organic solvents
Molecular Formula	C ₂ HCl ₃
Molecular Weight	131.38 g/mol

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions.
Hazardous Reactions	None under normal processing conditions.
Conditions to Avoid	Heat, sparks, open flame, and incompatible materials.
Incompatible Materials	Strong oxidizing agents, strong acids, strong bases.
Decomposition Products	May produce carbon oxides and other toxic fumes when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: See Section 2 for GHS hazard classification.

IARC	Group 1 — carcinogenic to humans (Trichloroethylene; IARC agent: Trichloroethylene, Vol. Sup 7, 63, 106).
NTP	Known to be a human carcinogen (Trichloroethylene; NTP listing: Trichloroethylene).
OSHA	No substance-specific standard in 29 CFR 1910 Subpart Z; classified as a carcinogen under the Hazard Communication Standard (29 CFR 1910.1200). See Section 2.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Daphnia EC50: 2 mg/L (96 h, Palaemonetes paludosus (grass shrimp; crustacean, not Daphnia)); Fish LC50: 20 mg/L (96 h, Cyprinodon variegatus (sheepshead minnow))
Persistence	Persists in groundwater (anaerobic dechlorination half-life 0.14–3.3 yr) — NOT readily biodegradable (2.4% ThOD in 2 wk, MITI)
Bioaccumulation	BCF 4–39 (bluegill 17, carp 4–17, rainbow trout 39)
Mobility in Soil	High mobility (Koc ~101); volatile

13. DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

14. TRANSPORT INFORMATION

US DOT	UN1710, Trichloroethylene, 6.1, PG III
IMDG	UN1710, Trichloroethylene, 6.1, PG III
IATA/ICAO	UN1710, Trichloroethylene, 6.1, PG III
Marine Pollutant	No

15. REGULATORY INFORMATION

TSCA Inventory	Listed.
SARA 313 (TRI)	Listed (de minimis 0.1%).
California Prop 65	Listed (cancer, developmental).
SARA 311/312	See Section 2 for hazard classifications.

Data retrieved as of — TSCA Inventory: 2026-09-02; SARA 313 (TRI): 2026-09-02; California Prop 65: 2026-09-02

16. OTHER INFORMATION

Revision Date: 09/21/2026

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