TECHNICAL DATA SHEET

Trichloroethylene (TCE) Technical Grade

Revised: 08/09/2026

PRODUCT IDENTIFICATION

Product Name: Trichloroethylene (TCE) Technical Grade
CAS Number: 79-01-6
Molecular Formula: C_2HCl_3
Molecular Weight: 131.38 g/mol
Grade: Technical Grade
Purity / Concentration: Not Available
Synonyms: Trichloroethene, TCE

PRODUCT OVERVIEW

Trichloroethylene (TCE) Technical Grade is a high-purity, clear, volatile solvent known for its exceptional degreasing capabilities. Featuring a 99.7% assay and minimal non-volatile residues, this chemical serves as a reliable performance solvent for demanding industrial manufacturing processes.

Grade Significance: Technical Grade ensures that the product meets specific purity standards required for industrial and manufacturing applications, balancing performance with cost-effectiveness.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Fid	%	99.7	99.5	100.5	GC-FID
Color (APHA)	APHA	5	—	15	ASTM D1209
Specific Gravity (20°C)	g/mL	1.467	1.459	1.47	Hydrometer @ 20°C
Non-Volatile Residue	%	0.0030	0	0.01	Residue on Ignition
Water Karl Fischer	%	0.0087	—	0.01	ASTM E203 / ISO 6296
Acidity As Acetic	ppm	3	—	10	Titration

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear volatile liquid	**Odor**	Sweet, chloroform-like odor
Form	Liquid	**Boiling Point**	189 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-99 °F (NTP, 1992)	**Flash Point**	greater than 200 °F (NTP, 1992)
Specific Gravity	1.46	**Solubility**	Low water solubility, excellent organic solvent
Molecular Formula	C_2HCl_3	**Molecular Weight**	131.38 g/mol
Vapor Pressure (20°C)	74 mmHg	**Viscosity (25°C)**	0.89 cP
Refractive Index (20°C)	1.466	**Density (25°C)**	1.463 g/mL

APPLICATIONS

1. **Metalworking** — Widely used for heavy-duty degreasing and cleaning of metal components to remove oils and greases before further processing.
2. **Adhesives and Coatings** — Acts as a highly effective solvent carrier in the formulation of specialized industrial adhesives and protective coatings.
3. **Laboratory Research** — Utilized in controlled laboratory settings for the precise extraction of various organic compounds.
4. **Pharmaceutical Manufacturing** — Serves as a critical chemical intermediate in the synthesis of complex pharmaceutical ingredients.

STORAGE & HANDLING

Due to its volatile nature and potential for skin and eye irritation, TCE must be stored in a cool, well-ventilated area away from direct sunlight and ignition sources. Proper containment prevents vapor buildup and ensures the safety of personnel handling this hazardous material.

- Store in a cool, well-ventilated area away from heat sources.
- Use materials compatible with TCE, such as HDPE or glass containers.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper PPE is worn, including gloves and goggles, when handling.
- Keep containers tightly closed to prevent evaporation and contamination.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 55 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: Danger

Hazard Statements:

- H315: Causes skin irritation
- H317: May cause an allergic skin reaction
- 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

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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