

TECHNICAL DATA SHEET

Trichloroethylene (TCE) Technical Grade

Technical Grade

CAS NUMBER

79-01-6

ALLIANCE CODE

trichloroethylene-tce-technical-grade

GENERATED

2026-08-31

REVISION

1.2

REVIEWED

2026-07-17 · Andre Taki

IDENTITY & COMPOSITION

PRODUCT NAME

Trichloroethylene (TCE) Technical Grade

ALLIANCE CODE

trichloroethylene-tce-technical-grade

GRADE

Technical Grade

CONCENTRATION

—

CAS NUMBER

79-01-6 [PubChem](#)

FORMULA

C2HCl3 [PubChem](#)

MOLECULAR WEIGHT

131.38 [PubChem](#)

PRODUCT TYPE

pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay (C2HCl3)	99.3 % min	99.5 %	—	Supplier specification
Acid Acceptance (as NaOH)	0.165 % min	0.19 %	—	Supplier specification
Titration base	0.0003 meq/g maximum	0.00006 meq/g	—	Supplier specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Free halogens	TO PASS TEST	Passes test	—	Supplier specification
Heavy metals (as Pb)	1 ppm maximum	0.2 ppm	—	Supplier specification
Total Impurities	0.20 % max	0.04 %	—	Supplier specification
Titration acid	0.0001 meq/g maximum	0.00001 meq/g	—	Supplier specification
Non-Volatile Residue	0.005 % max	0.0008 %	—	Supplier specification
Water (H ₂ O)	0.008 % max	45 ppm	—	Supplier specification
1,1,2-trichloroethane	0.01 % max	0.002 %	—	Supplier specification
halide	0.0005 % max	0.00005 %	—	Supplier specification
perchloroethylene	0.02 % max	0.004 %	—	Supplier specification

Specification values are guaranteed limits. Typical values are representative of production lots and are not guaranteed. Lot-specific certificates of analysis ship with every order.

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE Technical Grade	—	—	current
ACS Grade	—	—	trichloroethylene-tce-ac-grade

Typical assay shown is the rolling-window mean from the sibling product's most recent lots. Grade selection drives downstream end-use — verify the sibling grade matches your specification before substitution.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	Clear liquid	Supplier specification
Form	Liquid	Published reference
Color	15 PT-CO max	Supplier specification
Odor	Ethereal odor	Published reference
Specific Gravity (20 °C)	1.460-1.467	Supplier specification
Density	1.46 at 68 °F (USCG, 1999) – Denser than water; will sink	Published reference
Boiling Point	86.0–90.0 °C	Supplier specification
Melting Point	–99 °F (NTP, 1992)	Published reference
Flash Point	greater than 200 °F (NTP, 1992)	Published reference
Vapor Pressure	60 mmHg at 68 °F ; 77 mmHg at 77 °F (NTP, 1992)	Published reference
Solubility (water)	less than 1 mg/mL at 70 °F (NTP, 1992)	Published reference

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

UN1710 [Adjudicated](#)

PACKING GROUP

III [Adjudicated](#)

HAZARD CLASS

6.1 [Adjudicated](#)

PROPER SHIPPING NAME

Trichloroethylene [Adjudicated](#)

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger [Adjudicated](#)

H-CODES (HAZARD STATEMENTS)

H315, H317, H319, H336, H341, H350, H412

[Adjudicated](#)

P-CODES (PRECAUTIONARY STATEMENTS)

P201, P202, P261, P264, P271, P272, P273,
P280, P281, P302+P352, P305+P351+P338,
P308+P313, P312, P321, P332+P313,
P333+P313, P337+P313, P362, P391,
P403+P233, P405, P501

[Adjudicated](#)

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

100 ppm TWA / 200 ppm acceptable ceiling /
300 ppm 5-min peak

[OSHA 29 CFR 1910.1000](#)

ACGIH TLV

— [no canonical](#)

NIOSH REL

Ca (carcinogen — minimize occupational
exposure)

[NIOSH Pocket Guide](#)

NIOSH IDLH

1000 ppm [NIOSH Pocket Guide](#)

Transport descriptions reflect 49 CFR 172.101 lookup at time of publication. Sourced data: ECHA CLP Annex VI for harmonised classifications, NIOSH Pocket Guide for REL/IDLH, OSHA Z-Tables for PEL. Always verify against the latest regulatory text before shipment-critical decisions.

APPLICATIONS

Degreaser and industrial solvent; also used in producing fluorocarbon refrigerants [sciencelab.com](#)

Grade suitable for general industrial use [sciencelab.com](#)

Solvent used for degreasing, cold cleaning, and specialized industrial applications [chemceed.com](#)

Industrial solvent [sciencelab.com](#)

Applications are drawn from published manufacturer and supplier documentation; each is sourced. Suitability for a specific use is the buyer's to confirm.

STORAGE & HANDLING

RECOMMENDED STORAGE

Light sensitive; keep tightly closed in light-resistant containers

sciencelab.com

INCOMPATIBILITIES

Consult the SDS for material-specific incompatibilities.

Class-level guidance — not product-specific; the SDS controls.

For full hazard, PPE, and emergency response guidance, refer to the Safety Data Sheet (SDS) for this product. The SDS controls in all cases where guidance differs.

HANDLING PRECAUTIONS

Use standard chemical PPE — splash goggles, gloves, lab coat. Refer to SDS for hazard-specific PPE requirements.

Class-level guidance — not product-specific; the SDS controls.

SHELF LIFE

Consult Technical Services for product-specific shelf life

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

UN1710, Trichloroethylene, 6.1, PG III

Sourced from 49 CFR 172.101. Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS 70	PLACARD Toxic	PACKING GROUP PG III
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REVISION HISTORY

Last reviewed 2026-07-17 by Andre Taki, DOT Hazmat Specialist.

VERSION	DATE	CHANGE	TRIGGER
1.2	2026-07-22	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. - dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication) - dotProperShippingName · canonical change (coa.data_provenance / adjudication)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
1.1	2026-07-17	Canonical data re-verified: 5 fields updated against independent vendor SDSs, CLP Annex VI, 49 CFR, and OSHA HazCom 2024 (GHS classification, hazard/precautionary codes, signal word, physical properties as applicable). - countryOfOrigin · canonical adjudication / reground (coa.data_provenance) - ghsClassification · canonical adjudication / reground (coa.data_provenance) - hazard_h_codes · canonical adjudication / reground (coa.data_provenance) - hazard_p_codes · canonical adjudication / reground (coa.data_provenance) - hsCode · canonical adjudication / reground (coa.data_provenance)	canonical_change
1.0	2026-05-20	Initial URL—first TDS published from canonical chemistry registry.	initial

This Technical Data Sheet is provided for technical reference. The Safety Data Sheet (SDS) controls in all cases where guidance differs. Values reflect Alliance Chemical canonical data at time of generation; subsequent revisions are recorded in the Revision History above.