Richest Group
No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Tel: 0086 21 5017 5386
E-mail: inquiry@richest-group.com
Web: www.richest-group.com

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product: Trichloroethylene (TCE)	**Revision date:** 2026-10-29	**Version:** 1.0	**Brand:** Richest

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

Product name	Trichloroethylene (TCE)
Synonyms	Trichloroethene; Ethinyl trichloride
CAS No.	79-01-6
EC No.	201-167-4
Molecular formula	C2HCl3
Molecular weight	131.39 g/mol
Relevant identified uses	Industrial solvent for metal degreasing and cleaning; extraction solvent; chemical intermediate
Uses advised against	None
Company	Richest Group Ltd.
Address	No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Telephone	+86 21 5017 5386
WhatsApp	+86 13472638548
E-mail	inquiry@richest-group.com
Website	www.richest-group.com
Emergency telephone number	+86 13472638548

SECTION 2: Hazards identification

GHS Classification	Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; Muta. 2; Carc. 1B; STOT SE 3; Aquatic Chronic 3
Pictogram(s)	GHS07 (Exclamation mark); GHS08 (Health hazard)
Signal word	Danger
Hazard statement(s)	H315 Causes skin irritation H317 May cause an allergic skin reaction H319 Causes serious eye irritation H336 May cause drowsiness or dizziness

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/vapours/spray P264 Wash skin 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 P302+P352 IF ON SKIN: Wash with plenty of soap and water 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/attention P403+P233 Store in a well-ventilated place. Keep container tightly closed P405 Store locked up P501 Dispose of contents/container to an approved waste disposal plant
Other hazards	None known.

SECTION 3: Composition/information on ingredients

Component	Trichloroethylene
CAS No.	79-01-6
EC No.	201-167-4
Classification	Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; Muta. 2; Carc. 1B; STOT SE 3; Aquatic Chronic 3; H315, H319, H317, H341, H350, H336, H412
Concentration (%)	≥99.9 %

SECTION 4: First aid measures

If inhaled	Remove to fresh air. If not breathing, give artificial respiration. Call a physician.
In case of skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Consult a physician.
In case of eye contact	Rinse cautiously with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Call an ophthalmologist.
If swallowed	Immediately make victim drink water (two glasses at most). Do not induce vomiting. Consult a physician.
Most important symptoms and effects	Skin irritation; eye irritation; allergic skin reaction; drowsiness or dizziness;
Indication of any immediate medical attention	Treat symptomatically. Show this safety data sheet to the doctor in attendance.

SECTION 5: Firefighting measures

Suitable extinguishing media	Water spray, dry chemical, carbon dioxide (CO2), alcohol-resistant foam
Unsuitable extinguishing media	None
Special hazards arising from the chemical	Not combustible. Ambient fire may liberate hazardous vapours. Thermal decomposition may produce hydrogen chloride gas and phosgene.
Advice for firefighters	Wear self-contained breathing apparatus and full protective clothing for firefighting. Cool closed containers exposed to fire with water spray.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental precautions	Do not let product enter drains. Prevent further leakage or spillage if safe to do so.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material (e.g. sand, vermiculite). Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling	Use only in a well-ventilated area. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Keep away from heat, hot surfaces and sources of ignition. Wear personal protective equipment.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a cool, dry and well-ventilated place. Keep away from strong oxidizing agents, strong bases, alkali metals, aluminum and magnesium.

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	ACGIH TLV: TWA 10 ppm, STEL 25 ppm; China PC-TWA: 30 mg/m3
Biological limit values	ACGIH BEI: Trichloroacetic acid in urine, 15 mg/l (end of shift at end of workweek)
Appropriate engineering controls	Ensure adequate ventilation. Provide eyewash stations and safety showers close to the workstation.
Eye/face protection	Wear tightly fitting safety goggles/face shield.
Skin protection	Wear suitable protective gloves (e.g. butyl rubber, nitrile rubber).
Body protection	Wear appropriate protective clothing to prevent skin contact.
Respiratory protection	Where ventilation is inadequate, wear a suitable respirator with organic vapor filter.

Thermal hazards	No specific thermal hazards under normal conditions of use.

SECTION 9: Physical and chemical properties

Physical state	Liquid, clear
Colour	Colorless
Odour	Characteristic (chloroform-like)
Melting point / freezing point	-84.8 °C at 1,013 hPa
Boiling point or initial boiling point and boiling range	86.7 °C at 1,013 hPa
Flammability	Not combustible
Lower and upper explosion limit / flammability limit	Lower: 7.9 % (V); Upper: 90 % (V)
Flash point	Not applicable (does not flash)
Auto-ignition temperature	410 °C
Decomposition temperature	No data available
pH	Not applicable (non-aqueous organic liquid)
Kinematic viscosity	ca. 0.39 mm2/s at 20 °C (dynamic: 0.58 mPa·s at 20 °C)
Solubility	Water: 1.1 g/l at 20 °C; miscible with most organic solvents
Partition coefficient n-octanol/water	log Pow: 2.53 at 20 °C
Vapour pressure	81.3 hPa at 20 °C
Density and/or relative density	1.46 g/cm3 at 20 °C
Relative vapour density	4.54 (Air = 1.0)
Particle characteristics	Not applicable (liquid)

SECTION 10: Stability and reactivity

Reactivity	Violent reactions possible with alkali metals, aluminum, strong oxidizing
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Risk of explosion with alkali metals, aluminum, barium, lithium, magnesium, powdered metals, strong oxidizing agents, nitrogen dioxide
Conditions to avoid	Heat, flames and sparks; prolonged exposure to light and moisture

Incompatible materials	Strong oxidizing agents, strong bases, alkali metals, aluminum, magnesium, various plastics
Hazardous decomposition products	Hydrogen chloride gas, phosgene (in the event of fire)

SECTION 11: Toxicological information

Acute toxicity - Oral / Inhalation / Dermal	LD50 Oral - Rat - 4,920 mg/kg (RTECS) LC50 Inhalation - Rat - male - 4 h - 67.41 mg/l (ECHA) LD50 Dermal - Rabbit - > 20,000 mg/kg
Skin corrosion/irritation	Skin - Rabbit - Causes skin irritation (OECD Test Guideline 404)
Serious eye damage/irritation	Eyes - Rabbit - Causes serious eye irritation (RTECS)
Respiratory or skin sensitization	Local lymph node assay (LLNA) - Mouse - positive (OECD Test Guideline 429)
Germ cell mutagenicity	Suspected of causing genetic defects. In vitro tests showed mutagenic effects
Carcinogenicity	May cause cancer (Carc. 1B). IARC: Group 1 (carcinogenic to humans)
Reproductive toxicity	Not classified. No clear evidence of reproductive toxicity in available studies (ECHA)
STOT - single exposure	May cause drowsiness or dizziness (central nervous system)
STOT - repeated exposure	Prolonged or repeated exposure may affect the central nervous system, liver and kidneys. Not classified.
Aspiration hazard	Not classified

SECTION 12: Ecological information

Toxicity to fish / daphnia / algae	Toxicity to fish: flow-through test LC50 - Jordanella floridae - 28.3 mg/l - 96 h (US-EPA) Toxicity to daphnia: EC50 - Daphnia magna - 20.8 mg/l - 48 h (US-EPA) Toxicity to algae: ErC50 - Chlamydomonas reinhardtii (green algae) - 36.5 mg/l - 72 h (ECHA)
Persistence and degradability	Not readily biodegradable (0 % after 14 d, OECD 301 C); biodegradable under anaerobic conditions
Bioaccumulative potential	Low bioaccumulation potential (BCF ca. 17; log Pow 2.53)
Mobility in soil	Expected to be mobile in soil (log Koc ca. 1.8-2.0)
Other adverse effects	Harmful to aquatic life with long lasting effects (H412)

SECTION 13: Disposal considerations

Product disposal methods	Offer surplus and non-recyclable product to a licensed disposal company. Dispose of in accordance with local and national regulations.
Contaminated packaging	Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	UN 1710
UN Proper Shipping Name	TRICHLOROETHYLENE
Transport hazard class(es)	6.1
Packing group	III
Environmental hazards (Marine pollutant)	No
Special precautions for user	Keep containers upright, closed and secured during transport.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	EINECS: Listed (201-167-4) / TSCA: Listed / IECSC: Listed / China Catalog of Hazardous Chemicals 2015: Listed

SECTION 16: Other information

Full text of H-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
Revision date	2026-10-29
Version	1.0

Abbreviations and acronyms: CAS: Chemical Abstracts Service; EC: European Commission; EINECS: European Inventory of Existing Commercial Chemical Substances; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; RID: Regulation concerning the International Carriage of Dangerous Goods by Rail; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; TWA: Time Weighted Average; STEL: Short Term Exposure Limit; LD50: Lethal Dose 50%; LC50: Lethal Concentration 50%; EC50: Effective Concentration 50%; PBT: Persistent, Bioaccumulative and Toxic; vPvB: very Persistent and very Bioaccumulative; SDS: Safety Data Sheet.

References: ECHA - European Chemicals Agency, https://echa.europa.eu/; IPCS - International Chemical Safety Cards (ICSC), http://www.ilo.org/; HSDB - Hazardous Substances Data Bank; eChemPortal - OECD Global Portal to Information on Chemical Substances; ERG - Emergency Response Guidebook by U.S. DOT.

Disclaimer: The information in this SDS is only applicable to the specified product and is provided in good faith. It is based on the knowledge available to Richest Group Ltd. at the date of issue and is intended to describe the product for the purposes of health,

safety and environmental requirements only. It does not constitute any guarantee of the properties of the product. Richest Group Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.