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	4-tert-Butylcyclohexyl Acetate	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

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

Product name	4-tert-Butylcyclohexyl Acetate
Synonyms	PTBCHA; p-tert-Butylcyclohexyl acetate; 4-tert-Butylcyclohexyl acetate, mixture of cis and trans
CAS No.	32210-23-4
EC No.	250-954-9
Molecular formula	C12H22O2
Molecular weight	198.30 g/mol
Relevant identified uses	Fragrance raw material; the selected public grade is a cis/trans isomer mixture.
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
Address	No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Telephone	0086 21 5017 5386
E-mail	inquiry@richest-group.com
Website	www.richest-group.com
Emergency telephone number	0086 21 5017 5386

SECTION 2: Hazards identification

GHS Classification	Skin irritation Category 2; Eye irritation Category 2A; Specific target organ toxicity — single exposure Category 3, respiratory system
Pictogram(s)	GHS07
Signal word	Warning
Hazard statement(s)	H315 Causes skin irritation.; H319 Causes serious eye irritation.; H335 May cause respiratory irritation.
Precautionary statement(s)	P261; P264; P271; P280; P302+P352; P304+P340; P305+P351+P338; P312; P321; P332+P313; P337+P313; P362; P403+P233; P405; P501
Other hazards	No other hazards were identified in the reviewed sources.

SECTION 3: Composition/information on ingredients

Component	4-tert-Butylcyclohexyl Acetate
CAS No.	32210-23-4
EC No.	250-954-9
Classification	Skin irritation Category 2; Eye irritation Category 2A; Specific target organ toxicity — single exposure Category 3, respiratory system
Concentration	min. 96.0% (GC, total of isomer), TCI A0723

SECTION 4: First-aid measures	
If inhaled	Move to fresh air; give artificial respiration if not breathing; consult a physician.
In case of skin contact	Wash with soap and plenty of water and consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Never give anything by mouth to an unconscious person; rinse mouth with water and consult a physician.
Most important symptoms and effects	No data available
Indication of immediate medical attention	No data available

SECTION 5: Fire-fighting measures	
Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	No data available
Special hazards arising from the chemical	Carbon oxides.
Advice for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures	
Personal precautions and emergency procedures	Use personal protective equipment; avoid breathing vapours, mist or gas; ensure ventilation and evacuate personnel to safe areas.
Environmental precautions	Do not let product enter drains.
Methods for containment and cleaning up	Soak up with inert absorbent material, keep in suitable closed containers and dispose as hazardous waste.

SECTION 7: Handling and storage	
Precautions for safe handling	Avoid contact with skin and eyes and inhalation of vapour or mist; use normal preventive fire protection.
Conditions for safe storage, including incompatibilities	Keep container tightly closed in a dry, well-ventilated place; reseal opened containers and keep upright. TCI lists room-temperature storage and recommends a cool, dark place below 15 °C.

SECTION 8: Exposure controls/personal protection	
Occupational exposure limit values	The PerfumersWorld pure Vertenex SDS states that the product contains no substances with occupational exposure limit values.
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Use good industrial hygiene and safety practice; wash hands before breaks and at the end of the workday.
Eye/face protection	Safety glasses with side shields conforming to EN 166 or equivalent approved protection.
Skin and body protection	Use inspected gloves and impervious clothing. SDS splash-contact glove reference: nitrile rubber, minimum layer 0.4 mm, breakthrough time 30 min (Camatril KCL 730, EN 374).
Respiratory protection	Where risk assessment supports air-purifying respirators, use a full-face multipurpose combination (US) or ABEK (EN 14387) respirator as backup to engineering controls; use full-face supplied air if it is the sole protection.

SECTION 8: Exposure controls/personal protection	
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties	
Physical state	CBI; Other Solid; Liquid; Dry Powder; Liquid
Colour	Clear, colourless to almost colourless liquid (TCI); PerfumersWorld describes a colourless to pale straw oily liquid.
Odour	Sweet, rich, woody, pleasant floral and fruity (PerfumersWorld Vertenex product description).
Melting point / freezing point	<-50 °C (public SDS for CAS 32210-23-4).
Boiling point / boiling range	228–230 °C at 33 hPa (25 mmHg), lit.
Flammability	Sigma-Aldrich storage class 10: combustible liquids; this is a storage designation.
Explosion / flammability limits	No data available
Flash point	100 °C, closed cup
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Viscosity	Kinematic viscosity 8.37 ±0.02 mm²/s at 20 °C and 4.54 ±0.02 mm²/s at 40 °C; dynamic viscosity 7.83 mPa·s at 20 °C (public SDS).
Solubility	<0.0396 g/L in water and described as insoluble (public SDS); TCI also lists the product as insoluble in water.
Partition coefficient n-octanol/water	log Pow 4.8 at 25 °C (public SDS).
Vapour pressure	≤ 7.9 Pa at 25 °C (public SDS).
Density and/or relative density	0.934 g/mL at 25 °C (Sigma-Aldrich literature value); 0.936 at 20 °C (public SDS); TCI specific gravity 0.94 (20/20).
Relative vapour density	No data available
Particle characteristics	Not applicable (liquid).
Melting freezing point	No data available
Relative density	0.934 g/cm³ at 25 °C
Water solubility	TCI product specification separately states insoluble.
Other properties	No data available for odour threshold, evaporation rate, vapour pressure, vapour density, partition coefficient, auto-ignition temperature, decomposition temperature, viscosity, explosive properties and oxidizing properties.
Refractive index	1.45

SECTION 10: Stability and reactivity	
Reactivity	The pure Vertenex SDS entry for reactivity is none.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No decomposition if stored and applied as directed; vapours may form an explosive mixture with air (PerfumersWorld pure Vertenex SDS).

SECTION 10: Stability and reactivity

Conditions to avoid	Heat, flames and sparks; keep away from open flames, hot surfaces and other ignition sources.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Other decomposition products: no data available; in fire see carbon oxides in Section 5.

SECTION 11: Toxicological information

Acute oral toxicity	LD50 oral, rat: 5,000 mg/kg.
Skin corrosion irritation	Skin, rabbit; result not stated in the SDS text.
Carcinogenicity	No component present at ≥0.1% is identified as a probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP or OSHA in the selected SDS.
Stot single exposure	Inhalation may cause respiratory irritation.
Rtecs	AF7117000
Serious eye damage irritation	GHS classification: Skin irritation Category 2; Eye irritation Category 2A; Specific target organ toxicity — single exposure Category 3, respiratory system; H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

SECTION 12: Ecological information

Pbt vpvb	Assessment not available because chemical safety assessment was not required/conducted.

SECTION 13: Disposal considerations

Product disposal methods	Offer surplus and non-recyclable solutions to a licensed disposal company and use a licensed professional waste disposal service.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	Not regulated as dangerous goods
UN Proper Shipping Name	Not regulated as dangerous goods
Transport hazard class(es)	Not regulated as dangerous goods
Packing group	Not regulated as dangerous goods
Environmental hazards / Marine pollutant	See cited public SDS
Special precautions for user	Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	SARA_302: No chemicals are subject to SARA Title III Section 302 reporting.; SARA_313: No components with known CAS numbers exceed the De Minimis reporting levels.; SARA_311_312: Acute Health Hazard.; Massachusetts_Right_to_Know: No components are subject to the Act.; Pennsylvania_New_Jersey_Right_to_Know: 4-tert-Butylcyclohexyl acetate, CAS 32210-23-4, is listed in the SDS.; California_Proposition_65: The SDS states that the product does not contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16: Other information	
Full text of H-Statements	H315 Causes skin irritation.; H319 Causes serious eye irritation.; H335 May cause respiratory irritation.
Revision date	2026-11-16
Version	1.0
References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: 4-tert-Butylcyclohexyl Acetate — PubChem CID 36081: https://pubchem.ncbi.nlm.nih.gov/compound/36081 | 4-tert-Butylcyclohexyl Acetate (cis- and trans- mixture), A0723: https://www.tcichemicals.com/US/en/p/A0723 | Safety Data Sheet 347736 — 4-tert-Butylcyclohexyl acetate, mixture of cis and trans: https://www.chemblink.com/MSDSFiles/32210-23-4Sigma-Aldrich.pdf | 4-tert-Butylcyclohexyl acetate material profile: https://www.flavscents.com/library/material/554988cf49e/s | 4-tert-Butylcyclohexyl acetate, mixture of cis and trans, product 347736: https://www.sigmaaldrich.com/US/en/product/aldrich/347736 | 4-tert-Butylcyclohexyl Acetate, product A0723 — specifications, properties and safety: https://www.tcichemicals.com/SG/en/p/A0723 | 4-tert-Butylcyclohexyl acetate — Safety Data Sheet: https://www.chemicalbook.com/msds/4-tert-butylcyclohexyl-acetate.htm | Vertenex — pure substance SDS and technical documents: https://www.perfumersworld.com/document-list.php?pro_id=3LW00464 | Vertenex — odour and technical specifications: https://www.perfumersworld.com/view.php?pro_id=3LW00464
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.