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	sec-Butyl 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	sec-Butyl Acetate
Synonyms	SEC-BUTYL ACETATE; 105-46-4; dl-sec-Butyl acetate; 2-Butyl acetate; butan-2-yl acetate; 1-Methylpropyl acetate
CAS No.	105-46-4
EC No.	203-300-1
Molecular formula	C6H12O2
Molecular weight	116.16 g/mol
Relevant identified uses	Solvent for nitrocellulose lacquers, thinners, nail enamels and leather finishes.; Paint solvent; pulp/paper, textile and leather processing uses are listed in public use records.
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	Flammable liquids Category 2
Pictogram(s)	GHS02
Signal word	Danger
Hazard statement(s)	H225 Highly flammable liquid and vapour
Precautionary statement(s)	P210; P233; P240; P241; P242; P243; P280; P303+P361+P353; P370+P378; P403+P235; P501
Other hazards	A skin, eye, and respiratory tract irritant; Inhalation of high concentrations can cause CNS depression; [ICSC]

SECTION 3: Composition/information on ingredients

Component	sec-Butyl Acetate
CAS No.	105-46-4
EC No.	203-300-1
Classification	Flammable liquids Category 2
Concentration	≥99.0 wt%

SECTION 4: First-aid measures	
If inhaled	Move the person to fresh air and keep comfortable for breathing. Get medical advice if symptoms occur.
In case of skin contact	Water flush promptly - If this chemical contacts the skin, flush the contaminated skin with water promptly. If this chemical penetrates the clothing, immediately remove the clothing and flush the skin with water promptly. If irritation persists after washing, get medical attention.
In case of eye contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical advice if irritation persists.
If swallowed	Rinse mouth. Do not induce vomiting unless directed by medical personnel. Get medical advice if symptoms occur.
Most important symptoms and effects	No data available
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures	
Suitable extinguishing media	To fight fire, use alcohol foam, CO2, dry chemical.
Unsuitable extinguishing media	Fire Extinguishing Agents Not to Be Used: Water may be ineffective
Special hazards arising from the chemical	Excerpt from ERG Guide 129 [Flammable Liquids (Water-Miscible / Noxious)]:
Advice for firefighters	Wear self-contained breathing apparatus and protective clothing appropriate for the surrounding fire.

SECTION 6: Accidental release measures	
Personal precautions and emergency procedures	Avoid contact with the material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Environmental precautions	Prevent uncontrolled release to drains, soil and watercourses.
Methods for containment and cleaning up	Remove all ignition sources. Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Ventilation. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations. Do NOT wash away into sewer.

SECTION 7: Handling and storage	
Precautions for safe handling	Avoid contact with skin and eyes. Avoid formation or inhalation of dust, mist or vapour as applicable. Wash thoroughly after handling.
Conditions for safe storage, including incompatibilities	Keep container tightly closed in a cool, well-ventilated place; keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

SECTION 8: Exposure controls/personal protection	
Occupational exposure limit values	241 mg/m³
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Provide adequate ventilation. Eyewash facilities should be available where contact is possible.
Eye/face protection	Excerpt from NIOSH Pocket Guide for sec-Butyl acetate:

SECTION 8: Exposure controls/personal protection	
Skin and body protection	Excerpt from NIOSH Pocket Guide for sec-Butyl acetate:
Respiratory protection	Use suitable respiratory protection if exposure limits may be exceeded or dust, mist or vapour is generated.
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	Transparent liquid, no suspension substance or mechanical impurities
Colour	Colorless liquid
Odour	HAS FRUITY ODOR CHARACTERISTIC OF ACETATE ESTERS
Melting point / freezing point	-98.9°C
Boiling point / boiling range	112°C
Flammability	Excerpt from ERG Guide 129 [Flammable Liquids (Water-Miscible / Noxious)]:
Explosion / flammability limits	LEL: 1.7 % (USCG, 1999); UEL: 9.8 % (USCG, 1999)
Flash point	17°C (closed cup); 31°C value is explicitly open cup and is not used for PG selection
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Viscosity	No data available
Solubility	6200 mg/L at 20°C
Partition coefficient n-octanol/water	1.72
Vapour pressure	17 mmHg at 20°C
Density and/or relative density	0.8748 g/cm3 at 20°C; product SPEC range is 866–878 kg/m3 at 20°C
Relative vapour density	4.0 (Air = 1)
Particle characteristics	Not applicable (liquid).
Refractive index	Index of refraction: 1.3888 at 20 °C

SECTION 10: Stability and reactivity	
Reactivity	Highly flammable. Water soluble.
Chemical stability	Stable at ambient temperature; highly flammable. Reactions with strong oxidants, strong acids, and strong bases may create a fire/explosion hazard; keep away from ignition sources and store separately (ICSC 0840).
Possibility of hazardous reactions	SEC-BUTYL ACETATE is an ester. Esters react with acids to liberate heat along with alcohols and acids. Strong oxidizing acids may cause a vigorous reaction that is sufficiently exothermic to ignite the reaction products. Heat is also generated by the interaction of esters with caustic solutions.
Conditions to avoid	NO open flames, NO sparks and NO smoking. Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging, or handling.
Incompatible materials	Contact with nitrates, strong oxidizers, strong alkalies, and strong acids may cause fires and explosions.; Nitrates; strong oxidizers, alkalis and acids.

SECTION 10: Stability and reactivity

Hazardous decomposition products	When heated to decomp it emits acrid smoke and irritating fumes.

SECTION 11: Toxicological information

Toxicological summary	/HUMAN EXPOSURE STUDIES/ A study of sensory irritation (nasal pungency) associated with a series of homologous ketones and secondary and tertiary alcohols and esters was conducted. The study group consisted of three men and one woman, 41 to 65 years old, who lacked a sense of smell (anosmics) and three men and one woman 41 to 68 years old, with normal olfaction (normosmics).
Health effects	Headaches, dizziness, nausea, irritation of respiratory passage and eyes. (USCG, 1999)
Acute toxicity	The oral LD50 in rats is 3200–6400 mg/kg body weight. In inhalation studies, all rats survived a 6 h exposure to approximately 17,000 mg/m³, whereas all rats died following a 4 h exposure to 116,000 mg/m³; the latter are mortality observations, not an LC50 (WHO/IPCS CICAD 64, citing Roudabush, 1970).
Skin corrosion irritation	ILO/WHO ICSC 0840 states that prolonged or repeated contact may defat the skin, causing dryness or cracking. WHO/IPCS 2005 did not identify any skin irritation study specific to sec-Butyl Acetate; therefore, a negative conclusion for skin irritation cannot be drawn from these data.
Serious eye damage irritation	ICSC 0840 states that its vapour is mildly irritating to the eyes and respiratory tract, with redness as an ocular symptom; WHO/IPCS 2005 did not identify any eye irritation animal study specific to this isomer.
Sensitization	WHO/IPCS 2005 did not identify sensitization data for sec-Butyl Acetate; negative skin sensitization results for n-Butyl Acetate and Isobutyl Acetate cannot be used as direct substitutes for data on this isomer.
Carcinogenicity	WHO/IPCS 2005 states that no long-term carcinogenicity studies were available for any of the butyl acetate isomers assessed; the available information therefore can neither confirm carcinogenicity nor serve as experimental evidence of non-carcinogenicity.

SECTION 12: Ecological information

Persistence degradability	AEROBIC: sec-Butyl acetate, present at 100 mg/L, reached 86% of its theoretical BOD in 2 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test(1).
Bioaccumulative potential	An estimated BCF of 6 was calculated in fish for sec-butyl acetate(SRC), using a log Kow of 1.72(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).
Mobility in soil	Using a structure estimation method based on molecular connectivity indices(1), the Koc of sec-butyl acetate can be estimated to be 16(SRC). According to a classification scheme(2), this estimated Koc value suggests that sec-butyl acetate is expected to have very high mobility in soil.
Other adverse effects	The rate constant for the vapor-phase reaction of sec-butyl acetate with photochemically-produced hydroxyl radicals has been reported as 5.5X10-12 cu cm/molecule-sec at 25 °C(1). This corresponds to an atmospheric half-life of about 70 hours at an atmospheric concentration of 5X10+5 hydroxyl radicals per cu cm(1).
Environmental fate	ATMOSPHERIC FATE: According to a model of gas/particle partitioning of semivolatile organic compounds in the atmosphere(1), sec-butyl acetate, which has a vapor pressure of 17 mm Hg at 25 °C(2), is expected to exist solely as a vapor in the ambient atmosphere.
Ecotoxicity	WHO/IPCS CICAD 64 reports a 48 h growth test in Tetrahymena thermophila: EC10 141–155 mg/L, EC20 166–183 mg/L, EC50 234–316 mg/L, and NOEC 110–126 mg/L (Pauli et al., 1993).

SECTION 13: Disposal considerations

Product disposal methods	SRP: The most favorable course of action is to use an alternative chemical product with less inherent propensity for occupational harm/injury/toxicity or environmental contamination. Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier.
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)	1123
UN Proper Shipping Name	BUTYL ACETATES
Transport hazard class(es)	3
Packing group	II
Environmental hazards / Marine pollutant	No marine-pollutant indication in the retrieved 49 CFR 172.101 entry; confirm the current IMDG entry before shipment.
Special precautions for user	Keep containers closed and secured during transport. Follow applicable dangerous goods regulations.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	No data available

SECTION 16: Other information

Full text of H-Statements	H225 Highly flammable liquid and vapour
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: PubChem Sec-Butyl acetate (CID 7758): https://pubchem.ncbi.nlm.nih.gov/compound/7758 | Butyl Acetates — Concise International Chemical Assessment Document 64 (2005): https://inchem.org/documents/cicads/cicads/cicad64.htm | ICSC 0840 — sec-Butyl Acetate: https://chemicalsafety.ilo.org/dyn/icsc/showcard.display?p_card_id=0840&p_lang=en&p_version=1
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.