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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Propylene-Based Isopropyl Alcohol (IPA)	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

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

Product name	Propylene-Based Isopropyl Alcohol (IPA)
Synonyms	Isopropanol; 2-Propanol; sec-Propyl alcohol
CAS No.	67-63-0
EC No.	200-661-7
Molecular formula	C3H8O
Molecular weight	60.10 g/mol
Relevant identified uses	Industrial solvent for paints, polishes and insecticides; antiseptic; organic synthesis and production of acetone, isopropyl halides, glycerin and aluminum isopropoxide; Existing uploaded MSDS also lists cleaning agent for electronics and precision parts, disinfectant and chemical intermediate
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
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Emergency telephone number	0086 21 5017 5386

SECTION 2: Hazards identification

GHS Classification	Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3 (narcotic effects)
Pictogram(s)	GHS02; GHS07
Signal word	Danger
Hazard statement(s)	H225 Highly flammable liquid and vapor.; H319 Causes serious eye irritation.; H336 May cause drowsiness or dizziness.
Precautionary statement(s)	No data available
Other hazards	Isopropyl alcohol causes narcosis in acute animal studies. [ACGIH] Isopropyl alcohol is not hepatotoxic in experimental animal studies or in human exposures. [Zimmerman, p. 367] A skin, eye, and respiratory tract irritant; Inhalation of high concentrations can cause CNS depression; [ICSC]

SECTION 3: Composition/information on ingredients

Component	Propylene-Based Isopropyl Alcohol (IPA)
CAS No.	67-63-0
EC No.	200-661-7

SECTION 3: Composition/information on ingredients

Classification	Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3 (narcotic effects)
Concentration	Purity ≥99.9 wt%

SECTION 4: First-aid measures

If inhaled	IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere.
In case of skin contact	Water flush - If this chemical contacts the skin, flush the contaminated skin with water. Where there is evidence of skin irritation, get medical attention.
In case of eye contact	First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.
If swallowed	DO NOT INDUCE VOMITING. Volatile chemicals have a high risk of being aspirated into the victim's lungs during vomiting which increases the medical problems. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. IMMEDIATELY transport the victim to a hospital.
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	Do not use a solid (straight) water stream as it may scatter and spread fire. /Isopropyl Alcohol, Reagent, ACS/
Unsuitable extinguishing media	No data available
Special hazards arising from the chemical	Excerpt from ERG Guide 129 [Flammable Liquids (Water-Miscible / Noxious)]:
Advice for firefighters	Excerpt from ERG Guide 129 [Flammable Liquids (Water-Miscible / Noxious)]:

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	Evacuate danger area! Consult an expert! Remove all ignition sources. Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Collect leaking and spilled liquid in sealable non-plastic containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

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.

SECTION 7: Handling and storage

Conditions for safe storage, including incompatibilities	Store at +5°C to +30°C (TDS); existing SPEC also requires cool, well-ventilated storage away from heat, sparks and open flames with container tightly closed.

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	500 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 Isopropyl alcohol:
Skin and body protection	Excerpt from NIOSH Pocket Guide for Isopropyl alcohol:
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	Colorless liquid
Colour	Colorless liquid
Odour	Pleasant odor
Melting point / freezing point	-87.9 °C
Boiling point / boiling range	82°C
Flammability	Excerpt from ERG Guide 129 [Flammable Liquids (Water-Miscible / Noxious)]:
Explosion / flammability limits	LEL: 2 % (NTP, 1992); UEL: 12 % (NTP, 1992)
Flash point	12°C closed cup
Auto-ignition temperature	425°C
Decomposition temperature	No data available
pH	≤2.0 ppm
Viscosity	2.038 mPa s at 25 °C
Solubility	Miscible with water at 20°C and with most organic solvents
Partition coefficient n-octanol/water	[0.05]
Vapour pressure	43 hPa at 20°C
Density and/or relative density	0.785 g/mL at 25°C (TDS); 0.785 g/cm³ at 20°C (uploaded MSDS)
Relative vapour density	2.07 (NTP, 1992) - Heavier than air; will sink (Relative to Air)
Particle characteristics	Not applicable (liquid).
Refractive index	Index of refraction: 1.3852 at 8 °C/D; 1.3802 at 15 °C/D; 1.37723 at 20 °C/D; 1.3749 at 25 °C/D

SECTION 10: Stability and reactivity

Reactivity	Highly flammable. Water soluble.

SECTION 10: Stability and reactivity

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	ISOPROPANOL reacts with air or oxygen to form dangerously unstable peroxides. Contact with 2-butanone increases the rate of peroxide formation. An explosive reaction occurs when it is heated with (aluminum isopropoxide + crotonaldehyde). Forms explosive mixtures with trinitromethane and hydrogen peroxide.
Conditions to avoid	NO open flames, NO sparks and NO smoking. NO contact with strong oxidizing agents. Closed system, ventilation, explosion-proof electrical equipment and lighting.
Incompatible materials	When a stream of hydrogen entrained isopropyl alcohol vapors and palladium particles, the mixture caught fire on exposure to air.; Strong oxidizers, acetaldehyde, chlorine, ethylene oxide, acids, isocyanates
Hazardous decomposition products	When heated to decomposition it emits acrid smoke and fumes.

SECTION 11: Toxicological information

Acute toxicity	LC50 Mouse inhalation 53 mg/L 2 hr; LC50 Rat inhalation 51.045 mg/L 8 hr; LC50 Rat inhalation 72.6 mg/L 4 hr; LD50 Dog oral 4797 mg/kg
Toxicological summary	IDENTIFICATION: Isopropyl alcohol is an aliphatic alcohol hydrocarbon. It is prepared from propylene, which is obtained in the cracking of petroleum or by the reduction of acetone. It is a colorless liquid which is soluble in water, alcohol, ether, acetone, benzene and chloroform. It is insoluble in salt solutions. It has a slight odor resembling a mixture of ethanol and acetone and has a slight bitter taste.
Health effects	· May cause toxic effects if inhaled or absorbed through skin.
Serious eye damage irritation	GHS classification: Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3 (narcotic effects); H225 Highly flammable liquid and vapor. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

SECTION 12: Ecological information

Ecotoxicity	EC50; Species: Daphnia magna (Water Flea) age <24 hr neonate; Conditions: freshwater, static, 21 °C, pH 7.6; Concentration: 114 mM for 24 hr; Effect: intoxication, immobilization; EC50; Species: Daphnia pulex (Water Flea) age <24 hr; Conditions: freshwater, static, 20 °C, pH 7.6; Concentration: 174.27 mM for 24 hr; Effect: intoxication, immobilization /formulation/
Persistence degradability	AEROBIC: Degradation of isopropanol with municipal waste water for 5 and 20 days resulted in a theoretical oxygen demand (ThOD) of 7% and 70%, respectively(1). Degradation of 3, 7 and 10 mg/L of isopropanol with filtered sewage seed in fresh water resulted in a ThOD of 28% in 5 days and 78% in 20 days(2). In 2 other studies, the ThOD for isopropanol using domestic waste water was 66% and 74% in 5 days(1).
Bioaccumulative potential	An estimated BCF of 3 was calculated in fish for isopropanol(SRC), using a log Kow of 0.05(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 isopropanol can be estimated to be 1.5(SRC). According to a classification scheme(2), this estimated Koc value suggests that isopropanol is expected to have very high mobility in soil.
Other adverse effects	The rate constant for the vapor-phase reaction of isopropanol with photochemically-produced hydroxyl radicals is 5.07X10-12 cu cm/molecule-sec at 25 °C(1). This corresponds to an atmospheric half-life of about 3.2 days at an atmospheric concentration of 5X10+5 hydroxyl radicals per cu cm(SRC).

SECTION 12: Ecological information

Environmental fate	TERRESTRIAL FATE: Based on a classification scheme(1), an estimated Koc value of 1.5(SRC), determined from a structure estimation method(2), indicates that isopropanol is expected to have very high mobility in soil(SRC). Volatilization of isopropanol from moist soil surfaces is expected to be an important fate process(SRC) given a Henry's Law constant of 8.10X10-6 atm-cu m/mole(3).

SECTION 13: Disposal considerations

Product disposal methods	The following wastewater treatment technology has been investigated for isopropanol: Biological treatment.
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)	1219
UN Proper Shipping Name	ISOPROPANOL (ISOPROPYL ALCOHOL)
Transport hazard class(es)	3
Packing group	II
Environmental hazards / Marine pollutant	No
Special precautions for user	EmS Code: F-E, S-D

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	In Czechoslovakia a Max allowable concn of about 200 ppm ... Romania (1975) 160 ppm; East Germany (1973) 80 ppm; Japan (1975) and Western European nations, 400 ppm.

SECTION 16: Other information

Full text of H-Statements	H225 Highly flammable liquid and vapor.; H319 Causes serious eye irritation.; H336 May cause drowsiness or dizziness.
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 Isopropanol (CID 3776): https://pubchem.ncbi.nlm.nih.gov/compound/3776
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.