

SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.0
Creation Date: July 15, 2019
Revision Date: July 15, 2019

SECTION 1: Identification

1.1 GHS Product identifier

Product name Propyl acetate

1.2 Other means of identification

Product number

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Other names

Acetic acid, propyl ester; 3-Pyridinesulfonamide,5-nitro-N-propyl; Acetic Acid Propyl Ester

1.3 Recommended use of the chemical and restrictions on use

Identified uses

Industrial and scientific research use.

Uses advised against

no data available

1.4 Supplier's details

Company

Shanghai Yansheng Internet Technology Co., Ltd

Address

513, A3 / F, green space future center, Fengxian District, Shanghai, 201400, China

Telephone

+86-4000-6969-66

1.5 Emergency phone number

Emergency phone number

+86-4000-6969-66

Service hours

Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Flammable liquids, Category 2

Eye irritation, Category 2

Specific target organ toxicity – single exposure, Category 3

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

Precautionary statement(s)

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response	P233 Keep container tightly closed.
	P240 Ground and bond container and receiving equipment.
	P241 Use explosion-proof [electrical/ventilating/lighting/...] equipment.
	P242 Use non-sparking tools.
	P243 Take action to prevent static discharges.
	P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
	P264 Wash ... thoroughly after handling.
	P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
	P271 Use only outdoors or in a well-ventilated area.
	P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].
	P370+P378 In case of fire: Use ... to extinguish.
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P319 Get medical help if you feel unwell.
	P403+P235 Store in a well-ventilated place. Keep cool.
	P403+P233 Store in a well-ventilated place. Keep container tightly closed.
Disposal	P405 Store locked up.
	P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Propyl acetate	Propyl acetate	109-60-4	203-686-1	100%

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled

Fresh air, rest. Refer for medical attention.

Following skin contact

Rinse contaminated clothes (fire hazard) with plenty of water. Remove contaminated clothes. Rinse skin with plenty of water or shower.

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth. Refer for medical attention .

4.2 Most important symptoms/effects, acute and delayed

Contact with skin and eyes causes no serious injury. High vapor concentrations will be irritating and will cause nausea, vomiting, and dizziness, with final loss of consciousness. (USCG, 1999)

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Esters and related compounds

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

If material on fire or involved in fire: Do not extinguish fire unless flow can be stopped or safely confined. Use water in flooding quantities of fog. Solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water. Apply water from as far a distance as possible. Use "alcohol foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Excerpt from ERG Guide 129 [Flammable Liquids (Water-Miscible / Noxious)]: HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Those substances designated with a (P) may polymerize explosively when heated or involved in a fire. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Many liquids are lighter than water. (ERG, 2016)

5.3 Special protective actions for fire-fighters

Use alcohol-resistant foam, foam, powder, carbon dioxide, fine water spray. In case of fire: keep drums, etc., cool by spraying with water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all ignition sources. Evacuate danger area! Consult an expert! Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Do NOT wash away into sewer. Do NOT let this chemical enter the environment. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

6.2 Environmental precautions

Remove all ignition sources. Evacuate danger area! Consult an expert! Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Do NOT wash away into sewer. Do NOT let this chemical enter the environment. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

6.3 Methods and materials for containment and cleaning up

1. remove all ignition sources. 2. ventilate area of spill or leak. 3. for small quantities, absorb on paper towels. evaporate in safe place (such as fume hood). allow sufficient time for evaporating vapors to completely clear the hood ductwork. burn paper in suitable location...

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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. Handling in a well ventilated place. Wear suitable protective clothing. Avoid

contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Fireproof. Separated from strong oxidants, strong bases and strong acids. Store in an area without drain or sewer access. Store in tightly closed containers in a cool, well ventilated area away from heat. n-Propyl acetate will dissolve some plastics and resins.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

TLV: 200 ppm as TWA; 150 ppm as STEL. MAK: 420 mg/m³, 100 ppm; peak limitation category: I(2); pregnancy risk group: D

Biological limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety spectacles or eye protection in combination with breathing protection.

Skin protection

Protective gloves.

Respiratory protection

Use ventilation, local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	N-propyl acetate is a clear colorless liquid with a pleasant odor. Flash point 58°F. Less dense than water, Vapors are heavier than air.
Colour	Colorless liquid
Odour	Pleasant odor
Melting point/freezing point	319°C(lit.)
Boiling point or initial boiling point and boiling range	102°C(lit.)
Flammability	Class IB Flammable Liquid: Fl.P. below 73°F and BP at or above 100°F.
Lower and upper explosion limit/flammability limit	Lower flammable limit: 1.7% by volume @ 100 deg F (38 deg C); Upper flammable limit: 8% by volume
Flash point	14°C
Auto-ignition temperature	842°F
Decomposition temperature	no data available
pH	no data available

Kinematic viscosity	0.768 mPa s at 0 deg C; 0.544 mPa s at 25 deg C; 0.406 mPa s at 50 deg C; 0.316 mPa s at 75 deg C; 0.255 mPa s at 100 deg C
Solubility	2 % (NIOSH, 2016)
Partition coefficient n-octanol/water	1.24
Vapour pressure	25 mm Hg (20 °C)
Density and/or relative density	0.888g/mL at 25°C(lit.)
Relative vapour density	3.5 (vs air)
Particle characteristics	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Reacts with strong oxidants. This generates fire and explosion hazard. Reacts violently with strong acids and strong bases. Attacks rubber and some forms of plastic.

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

A flammable liquid and dangerous fire hazard when exposed to heat, flame, or oxidizers. The vapour mixes well with air, explosive mixtures are easily formed. N-PROPYL ACETATE is an ester. It is colorless, highly flammable liquid, moderately toxic. Dangerous fire hazard when exposed to heat, flame, sparks, or strong oxidizers. When heated to decomposition it emits acrid smoke and irritating fumes [Lewis, 3rd ed., 1993, p. 1093].

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Nitrates; strong oxidizers, alkalis and acids.

10.6 Hazardous decomposition products

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

SECTION 11: Toxicological information

Acute toxicity

- Oral: LD50 Rabbit oral 6640 mg/kg bw
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

The vapour is mildly irritating to the eyes, respiratory tract and skin. The substance may cause effects on the central nervous system. Exposure far above the OEL could cause lowering of consciousness.

STOT-repeated exposure

The substance defats the skin, which may cause dryness or cracking.

Aspiration hazard

A harmful contamination of the air can be reached rather quickly on evaporation of this substance at 20°C.

SECTION 12: Ecological information**12.1 Toxicity**

- Toxicity to fish: LC50; Species: Pimephales promelas (fathead minnow); Concentration: 60 mg/L for 96 hr (confidence limit 56-64 mg/L) /Conditions of bioassay not specified
- Toxicity to daphnia and other aquatic invertebrates: LC50; Species: Daphnia magna (Water Flea) age < or =24 hr; Conditions: freshwater, static, 20-22 deg C; Concentration: 511000 ug/L for 24 hr /formulation
- Toxicity to algae: LC50; Species: Chlorococcales (Green Algae Order); Conditions: freshwater, static; Concentration: 1000000 ug/L for 24 hr /formulation
- Toxicity to microorganisms: no data available

12.2 Persistence and degradability

AEROBIC: n-Propyl acetate gave a 5-day theoretical BOD of 62% using a settled domestic wastewater seed, the 10-day theoretical BOD was 80%(1). When the same inoculum was added to sea water, the percent theoretical BOD was 50% (5-day) and 70% (10-day)(1). n-Propyl acetate had a theoretical BOD of 72% after 20 days at 20 deg C(2). n-Propyl acetate, present at 100 mg/L, reached 81.0% of its theoretical BOD in 2 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test(3).

12.3 Bioaccumulative potential

An estimated BCF of 3 was calculated in fish for n-propyl acetate(SRC), using a log Kow of 1.24(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).

12.4 Mobility in soil

Using a structure estimation method based on molecular connectivity indices(1), the Koc of n-propyl acetate can be estimated to be 10(SRC). According to a classification scheme(2), this estimated Koc value suggests that n-propyl acetate is expected to have very high mobility in soil.

12.5 Other adverse effects

no data available

SECTION 13: Disposal considerations**13.1 Disposal methods****Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

14.1 UN Number

ADR/RID: UN1276 (For reference only, please check.)

IMDG: UN1276 (For reference only, please check.)

IATA: UN1276 (For reference only, please check.)

14.2 UN Proper Shipping Name

ADR/RID: n-PROPYL ACETATE (For reference only, please check.)

IMDG: n-PROPYL ACETATE (For reference only, please check.)

IATA: n-PROPYL ACETATE (For reference only, please check.)

14.3 Transport hazard class(es)

ADR/RID: 3 (For reference only, please check.)

IMDG: 3 (For reference only, please check.)

IATA: 3 (For reference only, please check.)

14.4 Packing group, if applicable

ADR/RID: II (For reference only, please check.)

IMDG: II (For reference only, please check.)

IATA: II (For reference only, please check.)

14.5 Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
Propyl acetate	Propyl acetate	109-60-4	203-686-1
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.
Korea Existing Chemicals List (KECL)			Listed.

SECTION 16: Other information

Information on revision

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Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- 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 Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Other Information

Do NOT take working clothes home.

Any questions regarding this SDS, Please send your inquiry to sds@xixisys.com

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