# **Material Safety Data Sheet**

Version 4.1 Revision Date 02/11/2011 Print Date 09/15/2011

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Propyl acetate

Product Number : W292508 Brand : Aldrich

Product Use : For laboratory research purposes.

**USA** 

Supplier : Sigma-Aldrich Manufacturer : Sigma-Aldrich Corporation

3050 Spruce Street 3050 Spruce St.

SAINT LOUIS MO 63103 St. Louis, Missouri 63103

**USA** 

Fax : Emergency Phone # (For :

both supplier and manufacturer)

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Preparation Information : Sigma-Aldrich Corporation

Product Safety - Americas Region

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# 2. HAZARDS IDENTIFICATION

## **Emergency Overview**

## **OSHA Hazards**

Flammable liquid, Irritant

## **GHS Classification**

Flammable liquids (Category 2) Eye irritation (Category 2A)

Specific target organ toxicity - single exposure (Category 3)

# GHS Label elements, including precautionary statements

Pictogram



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)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

**HMIS Classification** 

Health hazard: 2 Flammability: 3 Physical hazards: 0

**NFPA Rating** 

Health hazard: 2 Fire: 3

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**Reactivity Hazard**: 0

#### **Potential Health Effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause

drowsiness and dizziness.

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

**Ingestion** May be harmful if swallowed.

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula :  $C_5H_{10}O_2$ Molecular Weight : 102.13 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Propyl acetate			
109-60-4	203-686-1	607-024-00-6	-

## 4. FIRST AID MEASURES

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

## In case of skin contact

Wash off with soap and plenty of water. 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

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

# 5. FIRE-FIGHTING MEASURES

# **Conditions of flammability**

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

# Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

## **Hazardous combustion products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

#### **Further information**

Use water spray to cool unopened containers.

# **6. ACCIDENTAL RELEASE MEASURES**

# Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

#### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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# Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

# 7. HANDLING AND STORAGE

#### Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

# Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis		
Propyl acetate	109-60-4	TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)		
Remarks	Eye & Upper Respiratory Tract irritation					
		STEL	250 ppm	USA. ACGIH Threshold Limit Values (TLV)		
	Eye & Upper Respiratory Tract irritation					
		TWA	200 ppm 840 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants		
	The value in mg/m3 is approximate.					
		TWA	200 ppm 840 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000		
		STEL	250 ppm 1,050 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000		
		TWA	200 ppm 840 mg/m3	USA. NIOSH Recommended Exposure Limits		
		ST	250 ppm 1,050 mg/m3	USA. NIOSH Recommended Exposure Limits		

# Personal protective equipment

# **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

# **Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

## Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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## Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## **Appearance**

Form clear, liquid Colour colourless

Safety data

pH no data available

Melting point/range: -95 °C (-139 °F) - lit.

point/freezing point

Boiling point 102 °C (216 °F) - lit.

Flash point 14 °C (57 °F) - closed cup

Ignition temperature 450 °C (842 °F)
Autoignition no data available

temperature

Lower explosion limit 1.7 %(V) Upper explosion limit 8 %(V)

Vapour pressure 33 hPa (25 mmHg) at 20 °C (68 °F)

Density 0.888 g/cm3 at 25 °C (77 °F)

Water solubility soluble

Partition coefficient: log Pow: 1.23

n-octanol/water

Relative vapour 3.53

density - (Air = 1.0)

Odour no data available

Odour Threshold no data available

Evaporation rate no data available

## **10. STABILITY AND REACTIVITY**

# **Chemical stability**

Stable under recommended storage conditions.

# Possibility of hazardous reactions

Vapours may form explosive mixture with air.

#### Conditions to avoid

Avoid moisture. Heat.

Heat, flames and sparks. Extremes of temperature and direct sunlight.

## Materials to avoid

Oxidizing agents

# **Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - no data available

# 11. TOXICOLOGICAL INFORMATION

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# **Acute toxicity**

## Oral LD50

LD50 Oral - rat - 9,370 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity). Skin and Appendages: Other: Hair.

#### Inhalation LC50

no data available

#### **Dermal LD50**

LD50 Dermal - rabbit - > 17,740 mg/kg

# Other information on acute toxicity

no data available

#### Skin corrosion/irritation

Skin - rabbit - Open irritation test

## Serious eye damage/eye irritation

no data available

# Respiratory or skin sensitization

no data available

# Germ cell mutagenicity

no data available

# Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable,

possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or

anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by OSHA.

#### Reproductive toxicity

no data available

## **Teratogenicity**

no data available

# Specific target organ toxicity - single exposure (Globally Harmonized System)

May cause drowsiness or dizziness.

## Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

## Aspiration hazard

no data available

#### Potential health effects

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause

drowsiness and dizziness.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

## Signs and Symptoms of Exposure

prolonged or repeated exposure can cause:, narcosis

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# Synergistic effects

no data available

## **Additional Information**

RTECS: AJ3675000

## 12. ECOLOGICAL INFORMATION

## **Toxicity**

Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 318 mg/l - 24 h and other aquatic invertebrates.

#### Persistence and degradability

no data available

## Bioaccumulative potential

no data available

## Mobility in soil

no data available

#### PBT and vPvB assessment

no data available

#### Other adverse effects

no data available

#### 13. DISPOSAL CONSIDERATIONS

## **Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

## Contaminated packaging

Dispose of as unused product.

# 14. TRANSPORT INFORMATION

DOT (US)

UN number: 1276 Class: 3 Packing group: II

Proper shipping name: n-Propyl acetate

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG** 

UN number: 1276 Class: 3 Packing group: II EMS-No: F-E, S-D

Proper shipping name: PROPYL ACETATE

Marine pollutant: No

IATA

UN number: 1276 Class: 3 Packing group: II

Proper shipping name: n-Propyl acetate

# 15. REGULATORY INFORMATION

## **OSHA Hazards**

Flammable liquid, Irritant

# **SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

# SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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## SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

# **Massachusetts Right To Know Components**

	CAS-No.	Revision Date
Propyl acetate	109-60-4	1993-04-24
Pennsylvania Right To Know Components		
	CAS-No.	<b>Revision Date</b>
Propyl acetate	109-60-4	1993-04-24
New Jersey Right To Know Components		
	CAS-No.	<b>Revision Date</b>
Propyl acetate	109-60-4	1993-04-24

## California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

# **16. OTHER INFORMATION**

#### **Further information**

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