

# Safety Data Sheet

## 1. PRODUCT IDENTIFICATION

Name ***n*-Propyl Acetate**  
 Synonyms 1-propyl acetate; 1-acetoxyp propane; normal propyl acetate; *n*-propyl acetate; acetic acid, propyl ester  
 CAS# 109-60-4  
 Europe EC# 203-686-1  
 Product Uses lacquer, paint and ink solvent, ingredient in perfume

### EMERGENCY INFORMATION

Canada Call CANUTEC (collect) (613) 996-6666  
 U.S.A. Call CHEMTREC (800) 424-9300

## 2. HAZARDS

<b>GHS Class</b>	<i>flammable</i>	<i>eye irritant</i>	<i>STOT</i>
<b>(Category)</b>	(2)	(2B)	(3)
<b>Signal Words</b>	<b>DANGER</b>	<b>WARNING</b>	<b>WARNING</b>
		<i>no Pictogram</i>	
<b>Hazard Statements</b>	<i>highly flammable liquid &amp; vapour (H225)</i>	<i>causes eye irritation (H320)</i>	<i>may cause drowsiness or dizziness (H336)</i>



### GHS Precautionary Statements for Labelling

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.  
 P240 Ground or bond container and receiving equipment.  
 P241 Use explosion-proof electrical, ventilating and lighting equipment.  
 P242, P243 Use only non-sparking tools. Take precautionary measures against static discharge.  
 P262, P264 Do not get in eyes. Wash thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P280 Wear eye protection, protective gloves and clothing of "Silver Shield".  
 P313 & P333 If skin irritation or rash occurs, get medical advice/attention.

Canada – WHMIS  
 Key:

**B 2**  
**B 2** – Flash Point <38°C, **B 3** – Flash Point >38°C & <93°C  
**D 1** – Immediately Toxic, **D 2** – Chronic Toxicity  
**C** – Oxidising Substance, **E** – Corrosive, **F** – Reactive Substance



## 3. COMPOSITION

	%	TWAEV / TLV ppm / mg/m <sup>3</sup>	LD <sub>50</sub> (mg/kg) ORAL	LD <sub>50</sub> (mg/kg) SKIN	LC <sub>50</sub> ppm INHALATION
1-Propyl Acetate	100%	200 / 830	>6640	>8800	>7490

**Please ensure that this SDS is given to, and explained to people using this product.**

#### **4. FIRST AID**

SKIN: Wash with plenty of water. Remove contaminated clothing and do not reuse until thoroughly laundered.  
 EYES: Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is any irritation.  
 INHALATION: Remove from contaminated area promptly. **CAUTION: Rescuer must not endanger himself!** If breathing stops, administer artificial respiration and seek medical aid promptly.  
 INGESTION: Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

*Inadvertent inhalation of vomited material may seriously damage the lungs. The danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity substance. The stomach should only be emptied under medical supervision, and after the installation of an airway to protect the lungs.*

#### **5. FIRE FIGHTING & FLAMMABILITY**

Flash Point	>13°C / 55°F (closed cup)
Autoignition Temperature	450°C / 842°F
Flammable Limits	1.7% – 8%
Combustion Products	carbon monoxide, nitrogen oxides, smoke, part oxidised hydrocarbon fragments
Firefighting Precautions	alcohol or polymer foam, dry chemical, water fog, water spray only to cool & dilute, product floats on water – water jet spreads flames; firefighters must wear SCBA
Static Charge Accumulation	probably cannot accumulate a static charge on agitation or pumping

#### **6. ACCIDENTAL RELEASE MEASURES**

***Serious Fire Potential: blanket spill with foam as a precaution against accidental ignition. Take extreme care to avoid sparks – do not operate (turn on OR off) electrical appliances near spill, unless explosion proof.***

Leak Precaution	dyke to control spillage and prevent environmental contamination
Handling Spill	ventilate contaminated area; recover free liquid with suitable pumps; absorb residue on an inert sorbent, sweep & pick up using plastic or aluminium shovel, & store in closed containers for recycling or disposal

#### **7. HANDLING & STORAGE**

Store in a cool, dry environment, away from sources of ignition, heat, oxidising agents & substances listed in Part 10. Use non-sparking bronze or aluminium hand tools. All electrical & mechanical equipment (including lighting, switchgear & forklift trucks) used with or around this product must be explosion-proof.

Although this product cannot retain a static charge on agitation or transfer, its flash point is low. Ground or electrically bond the source container, receiving container & transfer pump before transferring contents. Avoid splashing by keeping the product nozzle below the surface in the receiving container. Ensure that containers, empty or full, are tightly sealed unless in use. Never cut, drill, weld or grind on or near this container.

Avoid generating or breathing product vapour. If vapour forms in use install adequate ventilation. If dealing with a spill & ventilation is impossible or impractical, wear a respirator with organic vapour cartridge. Limit contact with skin & wash work clothes frequently. An eye bath and safety shower must be available near the workplace.

#### **8. EXPOSURE CONTROL & PERSONAL PROTECTION**

Ontario TWAEV	200ppm / 830mg/m <sup>3</sup>	Ontario STEV	250ppm / 1040mg/m <sup>3</sup>
ACGIH TLV	200ppm / 830mg/m <sup>3</sup>	ACGIH STEL	250ppm / 1040mg/m <sup>3</sup>
OSHA PEL	200ppm / 830mg/m <sup>3</sup>	OSHA STEL	250ppm / 1040mg/m <sup>3</sup>
Ventilation	mechanical ventilation may be required to maintain airborne titre below TWAEV		
Hands	probably not required; "Silver Shield" gloves are resistant – <i>consult supplier to confirm suitability</i> <b>Do NOT use vinyl (PVC), nitrile, "Viton" or neoprene!</b>		
Eyes	safety glasses with side shields – <i>always protect the eyes</i>		
Clothing	no special protective clothing required		

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**9. PHYSICAL PROPERTIES**

Odour & Appearance	clear, colourless, mobile liquid with strong, pleasant, fruity ( <i>pear-like</i> ) odour
Odour Threshold	0.05ppm – 0.7ppm
Vapour Pressure	25mmHg / 3.33kPa (20°C / 68°F)
Evaporation Rate ( <i>Butyl Acetate</i> = 1)	2.8
Vapour Density (air = 1)	3.5
Boiling Point	102°C / 215°F
Freezing Point	-92°C / -133°F
Specific Gravity	0.888 (20/20°C)
Water Solubility	18.7 – 20.4grams per litre (20°C / 68°F) <sup>1</sup>
Also soluble in	most organic solvents
Log P <sub>O/W</sub> (Octanol/H <sub>2</sub> O partition)	1.4 <sup>1</sup>
Viscosity	0.58 <sup>1</sup> – 0.5centipoise (20°C / 68°F)
pH	none – ( <i>does not liberate hydrogen ions when dissolved</i> )
Conversion Factor	1ppm = 4.17g/m <sup>3</sup>
Molecular Weight	102grams per mole

**10. REACTIVITY**

Dangerously Reactive With	strong oxidising agents, strong alkalis may cause violent hydrolysis
Also Reactive With	strong acids, hydrazine, azo and diazo compounds; attacks certain elastomers
Stability	stable; will not polymerize
Decomposes in Presence of	hydrolyses in alkaline medium
Decomposition Products	hydrolyses to <i>n</i> -propyl alcohol & acetic acid
Sensitive to Mechanical Impact	no

**11. TOXICITY****Effects, Acute Exposure**

Skin Contact	little to no effect on skin <sup>1</sup>
Skin Absorption	slight; toxic unlikely by this route
Eye Contact	slightly irritating <sup>1</sup> , will not damage eyes; vapour irritating above 200ppm
Inhalation	irritating above 200ppm; headache, dizziness, drowsiness, intoxication, shortness of breath
Ingestion	100+ml has similar effects to inhalation due to hydrolysis to propanol – <i>not a route of industrial exposure</i>
LD <sub>50</sub> (oral)	8700 <sup>1</sup> , 9370 <sup>1</sup> & 9800mg/kg (rat), 8300mg/kg (mouse), 6640mg/kg (rabbit)
LD <sub>50</sub> (skin)	>17,800mg/kg (rabbit) <sup>1</sup> , >8800mg/kg (guinea pig)
LC <sub>50</sub> (inhalation)	8000ppm (rat), 9100ppm (cat), 7490ppm (rat) <sup>1</sup>

**Effects, Chronic Exposure**

General	prolonged exposure may cause dermatitis due to drying/degreasing effect
Sensitising	not a sensitizer in humans or animals
Carcinogen/Tumorigen	not considered a tumorigen or a carcinogen in humans or animals
Reproductive Effect	no known effect in humans or animals
Mutagen	no known effect on humans or animals
Synergistic With	not known

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**12. ECOLOGICAL INFORMATION**

Bioaccumulation	rapidly eliminated from the body and is not a bioaccumulator
Biodegradation	degrades rapidly in the presence of oxygen – 5day degradation – 62%; 10day – 70%, 20day – 78%
Abiotic Degradation	reacts with atmospheric hydroxyl radicals; estimated ½-life in air is 5 days
Mobility in soil, water	water soluble; moves moderately rapidly in soil and water
<b>Aquatic Toxicity</b>	
LC <sub>50</sub> (Fish, 96hr)	56-64mg/litre (Pimephelas promelas), 60mg/litre (Pimephelas promelas) <sup>1</sup>
EC <sub>50</sub> (Crustacea, 24hr)	318 & 511mg/litre (Daphnia magna), 91.5mg/litre (Daphnia magna) <sup>1</sup>
EC <sub>50</sub> (Algae, 24hr)	1000mg/litre (“plankton algae”*) - *mixture of several many species . . .
EC <sub>50</sub> (Algae, 72hr)	672mg/litre (Pseudokirchnerella subcapitata) <sup>1</sup>
EC <sub>50</sub> (Bacteria)	170mg/litre (Pseudomonas putida) <sup>1</sup> , >1000mg/litre (sewage sludge) <sup>1</sup>

**13. DISPOSAL**

Waste Disposal	<b>do not flush to sewer</b> , recycle solvent if possible, may be incinerated in approved facility
Containers	<b>Drums</b> should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use. <b>Pails</b> must be vented and thoroughly dried prior to crushing and recycling. <b>IBCs</b> (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months. Replace at 60 months (5yrs). Steel containers must be inspected, pressure tested & recertified every 5 years. <i>Never cut, drill, weld or grind on or near this container, even if empty</i>

**14. TRANSPORT CLASSIFICATION**

<b>Canada TDG</b>	<b>PIN</b>	<b>UN - 1276</b>
<b>AND</b>	<b>Shipping Name</b>	<b>n-propyl acetate</b>
<b>U.S.A. 49 CFR</b>	<b>Class &amp; Packing Group</b>	<b>3 (II)</b>
<b>Marine Pollutant</b>		not a marine pollutant
<b>ERAP Required</b>	<b>NO</b>	

**15. REGULATIONS**

<b>Canada DSL</b>	<b>on inventory</b>
<b>U.S.A. TSCA</b>	<b>on inventory</b>
<b>Europe EINECS</b>	<b>on inventory</b>

**16. OTHER INFORMATION**

Prepared for Megaloid Laboratories by Peter Bursztyn, (705) 734-1577

Data from **RTECS**, **HSDB** (Haz. Substance Data Base), **Cheminfo** (CCOHS), **IUCLID** Datasheets (ESIS – European Chem. Substance Info. System), & others.

Preparation Date: **January 2003** Revision Date: **January 2006, January 2009, January 2012, December 2014**

(1) **European Chemicals Agency (EChA) dossier on propyl acetate:**

[http://apps.echa.europa.eu/registered/data/dossiers/DISS-9c7d33f6-44b3-11bf-e044-00144f67d249/DISS-9c7d33f6-44b3-11bf-e044-00144f67d249\\_DISS-9c7d33f6-44b3-11bf-e044-00144f67d249.html](http://apps.echa.europa.eu/registered/data/dossiers/DISS-9c7d33f6-44b3-11bf-e044-00144f67d249/DISS-9c7d33f6-44b3-11bf-e044-00144f67d249_DISS-9c7d33f6-44b3-11bf-e044-00144f67d249.html)

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