Material Safety Data Sheet
n-Propyl acetate

MSDS# 97171

Section 1 - Chemical Product and Company Identification

MSDS Name: n-Propyl acetate
Catalog Numbers: AC158290000, AC158290010, AC158290025, AC158291000, AC158295000, AC180840000, AC180840025, AC180840050, AC180845000, AC418410000, AC418410010, AC418410010, AC418410030, AC418410200, EK1083120, EK1083138
Synonyms: Acetic acid n-propyl ester; 1-Acetoxypropane.

Company Identification:
Acros Organics BVBA
Janssen Pharmaceuticala 3a
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Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

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Emergency Number US:
201-796-7100
CHEMTREC Phone Number, US:
800-424-9300
CHEMTREC Phone Number, Europe:
703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 109-60-4
Chemical Name: n-Propyl acetate
%
90+
EINECS#: 203-686-1

Hazard Symbols: XI F
Risk Phrases: 11 36 66 67

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Flammable liquid and vapor. Breathing vapors may cause drowsiness and dizziness. Causes eye, skin, and respiratory tract irritation. Repeated exposure may cause skin dryness or cracking. Target Organs: Blood, central nervous system, respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.
Skin: Causes skin irritation. May be harmful if absorbed through the skin. Repeated or prolonged exposure may cause drying and cracking of the skin.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed. May cause central nervous system depression.
Inhalation: Causes respiratory tract irritation. May cause narcotic effects in high concentration. May be harmful if inhaled. Inhalation of vapors may cause drowsiness and dizziness.

Chronic: Prolonged or repeated skin contact may cause defatting and dermatitis. Chronic exposure may cause blood effects.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Containers may explode in the heat of a fire. Flammable liquid and vapor.

Extinguishing Media: Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Water may be ineffective.

Autoignition Temperature: 450 deg C (842.00 deg F)

Flash Point: 10 deg C (50.00 deg F)

Explosion Limits: Lower: 1.8 vol %

Explosion Limits: Upper: 8 vol %

NFPA Rating: health: 2; flammability: 3; instability: 1;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Wear a self-contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Propyl acetate</td>
<td>200 ppm; 250 ppm</td>
<td>200 ppm TWA; 840 ppm TWA; 840 mg/m3 TWA; 840 mg/m3 TWA</td>
<td></td>
</tr>
<tr>
<td>STEL</td>
<td></td>
<td>mg/m3 TWA; 1700 ppm TWA</td>
<td></td>
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<tr>
<td>IDLH</td>
<td></td>
<td>ppm TWA</td>
<td></td>
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</tbody>
</table>

OSHA Vacated PELs: n-Propyl acetate: 200 ppm TWA; 840 mg/m3 TWA

Engineering Controls:

Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an
eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: clear, colorless - APHA: 15 max

Odor: odor of pears

pH: Not available

Vapor Pressure: 33 mbar @ 20 deg C

Vapor Density: 3.5 (air=1)

Evaporation Rate: Not available

Viscosity: 0.58 mPa @ 20 deg C

Boiling Point: 102 deg C @ 760 mmHg (215.60°F)

Freezing/Melting Point: -95 deg C (-139.00°F)

Decomposition Temperature: Not available

Solubility in water: Soluble

Specific Gravity/Density: 0.880

Molecular Formula: C5H10O2

Molecular Weight: 102.13

Section 10 - Stability and Reactivity

Chemical Stability: Moisture sensitive.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, exposure to moist air or water.

Incompatibilities with Other Materials: Strong oxidizing agents, acids, bases.

Hazardous Decomposition Products: Carbon monoxide, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 109-60-4: AJ3675000

RTECS:

CAS# 109-60-4: Draize test, rabbit, eye: 500 mg/24H Mild;

Oral, mouse: LD50 = 8300 mg/kg;

LD50/LC50:

Oral, rabbit: LD50 = 6640 mg/kg;

Oral, rat: LD50 = 9370 mg/kg;

Skin, rabbit: LD50 = >20 mL/kg;

Carcinogenicity: n-Propyl acetate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: 60mg/L; 96H

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI F

Risk Phrases:
- R 11 Highly flammable.
- R 36 Irritating to eyes.
- R 66 Repeated exposure may cause skin dryness or cracking.
- R 67 Vapours may cause drowsiness and dizziness.

Safety Phrases:
- S 16 Keep away from sources of ignition - No smoking.
- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 29 Do not empty into drains.
- S 33 Take precautionary measures against static discharges.

WGK (Water Danger/Protection)

CAS# 109-60-4: 1

Canada

CAS# 109-60-4 is listed on Canada's DSL List

Canadian WHMIS Classifications: B2, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 109-60-4 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 109-60-4 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 7/28/1999
Revision #7 Date 7/20/2009
Reviewed 2013.02.14
13:45:13 -05'00'

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