n-Propyl Acetate

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<table>
<thead>
<tr>
<th>Trade name</th>
<th>n-Propyl Acetate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>1-Propyl Acetate</td>
</tr>
<tr>
<td>Use</td>
<td>Industrial use, Intermediate, Raw material for chemical processes, Raw material for industry, Solvent</td>
</tr>
<tr>
<td>Company</td>
<td>Sasol Chemicals (USA) LLC (an affiliate of Sasol Chemicals North America LLC)</td>
</tr>
<tr>
<td>Address</td>
<td>12120 Wickchester Lane, Houston, TX 77079</td>
</tr>
<tr>
<td>Telephone</td>
<td>CHEMTREC North America Transportation Emergency (24-hr) (800) 424 9300</td>
</tr>
<tr>
<td></td>
<td>CHEMTREC World Wide (703) 527-3887</td>
</tr>
<tr>
<td></td>
<td>Other Emergencies (24-hr) (337) 494 5142</td>
</tr>
<tr>
<td></td>
<td>SDS and Product Information (8:00am-4:30pm CST) (281) 588 3491</td>
</tr>
<tr>
<td></td>
<td>Health and Safety Information (7:30am-4:00pm CST) (281) 588 3492</td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:SasolElectronicSDS@us.sasol.com">SasolElectronicSDS@us.sasol.com</a></td>
</tr>
</tbody>
</table>

SECTION 2 HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>OSHA/GHS Hazards</th>
<th>Flammable liquids Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eye irritation Category 2A</td>
</tr>
<tr>
<td></td>
<td>Specific target organ toxicity - single exposure Category 3 (Narcotic effects)</td>
</tr>
</tbody>
</table>

LABEL ELEMENTS

- **Hazard symbols**
  - Flammable
  - Warning

- **Signal word** Danger

- **Hazard statements**
  - H225 Highly flammable liquid and vapour.
  - H319 Causes serious eye irritation.
  - H336 May cause drowsiness or dizziness.

- **Precautionary statements**
  - **Prevention** P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
n-Propyl Acetate

P233  Keep container tightly closed.
P240  Ground/bond container and receiving equipment.
P241  Use explosion-proof electrical/ ventilating/ lighting equipment.
P242  Use only non-sparking tools.
P243  Take precautionary measures against static discharge.
P280  Wear protective gloves/ eye protection/ face protection.
P264  Wash skin thoroughly after handling.
P261  Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P271  Use only outdoors or in a well-ventilated area.

Response
P303 + P361 + P353  IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P370 + P378  In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313  If eye irritation persists: Get medical advice/ attention.
P304 + P340  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312  Call a POISON CENTER/doctor if you feel unwell.

Storage
P403 + P405 + P235  Store locked up in a well-ventilated place. Keep cool.

SECTION 3  COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propyl Acetate</td>
<td>109-60-4</td>
<td>100</td>
</tr>
</tbody>
</table>

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

SECTION 4  FIRST AID MEASURES

Eye contact  Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact  Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.

Inhalation  Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.

Ingestion  If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
SECTION 5  FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES
Fire/explosion  Vapours may form explosive mixture with air. Use water spray to disperse the vapors. Flash back possible over considerable distance. NFPA Class 1B flammable liquid.

Suitable extinguishing media  Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO2)

Protective equipment and precautions for firefighters  Wear self-contained breathing apparatus and protective suit. Keep containers and surroundings cool with water spray.

SECTION 6  ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up  Evacuate personnel to safe areas. Remove all sources of ignition. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Do not flush into surface water or sanitary sewer system.

Spill precautions  Material can create slippery conditions.

SECTION 7  HANDLING AND STORAGE

Safe handling advice  Ensure all equipment is electrically grounded before beginning transfer operations. Keep away from heat and sources of ignition. Use only with adequate ventilation.

Storage/Transport pressure  Ambient

Load/Unload temperature  Ambient

Further information on storage conditions  Keep away from heat and sources of ignition.

SECTION 8  EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES  Air contaminant levels should be controlled below the PEL or TLV for this product (see Exposure Guidelines). Ensure adequate ventilation, especially in confined areas. Use explosion-proof equipment.

PERSONAL PROTECTIVE EQUIPMENT

Eyes  Wear as appropriate: Goggles, Face-shield
n-Propyl Acetate

**Skin**
Wear suitable protective clothing, gloves and eye/face protection.

**Inhalation**
Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

**EXPOSURE GUIDELINES**

<table>
<thead>
<tr>
<th>Components</th>
<th>Exposure limit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Propyl Acetate</strong></td>
<td>OSHA PEL (Permissible Exposure Limit) 200 ppm 840 mg/m³</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (8-hour) 200 ppm</td>
</tr>
<tr>
<td></td>
<td>ACGIH STEL (Short Term Exposure Limit) 250 ppm</td>
</tr>
</tbody>
</table>

PEL= Permissible Exposure Limits
TLV= Threshold Limit Value
EL= Excursion Limit
TWA= Time Weighted Average (8 hr.)
STEL= Short Term Exposure Limit (15 min.)
WEEL= Workplace Environmental Exposure Level

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**
liquid;

**Colour**
colourless

**Form**
liquid

**Odour**
ester-like

**Odour Threshold**
No data available

**Flash point**
11.8 °C, 53.2 °F;

**Flammability**
Upper explosion limit: 8 %(V)
Lower explosion limit: 2 %(V)

**Boiling point/boiling range**
101.5 °C, 215 °F;

**Melting point/range**
-93 °C, -136 °F;

**Auto-ignition temperature**
380 °C, 716 °F;

**Decomposition temperature**
Decomposes on heating.

**Flammability (solid, gas)**
No data available
n-Propyl Acetate

Vapour pressure 47.9 hPa @ 25 °C, 77 °F;
Vapour density 3.52
Density 0.89 g/cm³ @ 20 °C, 68 °F;
Relative density No data available
Water solubility completely miscible
Viscosity No data available
Viscosity, dynamic 0.58 mPa.s @ 20 °C, 68 °F;
pH No data available
Evaporation rate No data available
Partition coefficient: n-octanol/water log Pow: 1.4; @ 25 °C, 77 °F;
Volatile organic compounds (VOC) content 100 %

SECTION 10 STABILITY AND REACTIVITY

Reactivity No decomposition if stored and applied as directed.
Chemical stability Stable under recommended storage conditions.
Conditions to avoid Heat, flames and sparks. Direct sources of heat. Extremes of temperature and direct sunlight.
Hazardous decomposition products Combustion products include carbon dioxide, carbon monoxide and possibly other unidentified organic compounds.
Materials to avoid Oxidizing agents
Hazardous polymerisation Vapours may form explosive mixture with air.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute dermal toxicity LD50 Rat: > 2,000 mg/kg (literature value)
### n-Propyl Acetate

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute inhalation toxicity</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Acute oral toxicity</strong></td>
<td>LD50 Rat: &gt; 2,000 mg/kg (literature value)</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>(Rabbit) slight irritation (literature value)</td>
</tr>
<tr>
<td><strong>Serious eye damage/eye irritation</strong></td>
<td>(Rabbit) irritating (literature value)</td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitisation</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td>Genotoxicity in vitro: No data available</td>
</tr>
<tr>
<td></td>
<td>Genotoxicity in vivo: No data available</td>
</tr>
<tr>
<td></td>
<td>Assessment Mutagenicity: No data available</td>
</tr>
<tr>
<td><strong>Reproductive toxicity</strong></td>
<td>Reproductive toxicity: No data available</td>
</tr>
<tr>
<td></td>
<td>Assessment Reproductive toxicity: No data available</td>
</tr>
<tr>
<td></td>
<td>Teratogenicity: No data available</td>
</tr>
<tr>
<td></td>
<td>Assessment teratogenicity: No data available</td>
</tr>
<tr>
<td><strong>STOT - single exposure</strong></td>
<td>The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.</td>
</tr>
<tr>
<td><strong>STOT - repeated exposure</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Aspiration toxicity</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
<td>Assessment carcinogeticity: Contains no ingredient listed as a carcinogen</td>
</tr>
</tbody>
</table>
n-Propyl Acetate

SECTION 12 ECOLOGICAL INFORMATION

Toxicity to fish
LC50 (Pimephales promelas (fathead minnow)) 96 hours: > 10 - 100 mg/l; static test (literature value)

Toxicity to aquatic invertebrates
EC50 (Daphnia magna (Water flea)) 48 hours: > 10 - 100 mg/l; static test (literature value)

Toxicity to algae
EC50 (Pseudokirchneriella subcapitata (green algae)) 72 hours: > 100 mg/l; static test (literature value)

Biodegradation
Readily biodegradable.

OECD Test Guideline 301D (20 d): > 60 % (literature value)

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Code
D001 - Ignitability (RQ 100 LB). Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification.

Disposal methods
Land disposal of this product is restricted. Dispose of only in accordance with local, state, and federal regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

Empty containers.
Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

SECTION 14 TRANSPORT INFORMATION

DOT
UN 1276, n-Propyl Acetate, 3, II
n-Propyl Acetate

IATA UN 1276, n-Propyl Acetate, 3, II
IMDG UN 1276, n-Propyl Acetate, 3, II

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks No data available

SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA Inventory Listing

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic acid, propyl ester</td>
<td>109-60-4</td>
<td></td>
</tr>
</tbody>
</table>

All chemical substances in this product are either on the TSCA Active Inventory, or in compliance with the inventory.

SARA 302 Status

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

SARA 311/312 Classification

Flammable liquids, Eye irritation, Specific target organ toxicity - single exposure

SARA 313 Chemical

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

<table>
<thead>
<tr>
<th>Components</th>
<th>Reportable Quantity</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INTERNATIONAL REGULATIONS

WHMIS Classification

<table>
<thead>
<tr>
<th></th>
<th>Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids</td>
<td></td>
</tr>
<tr>
<td>Eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Specific target organ toxicity - single exposure</td>
<td>Category 3 (Narcotic effects)</td>
</tr>
</tbody>
</table>
n-Propyl Acetate

European Union
Classification according to Regulation (EU) 1272/2008.

- Flammable liquids, Category 2
- Eye irritation, Category 2
- Specific target organ toxicity - single exposure, Category 3 (Narcotic effects)

Australia. Inventory of Chemical Substances (AICS) Listed
Japan. Inventory of Existing and New Chemical Substances (ENCS) Listed
Japan. ISHL - Inventory of Chemical Substances Listed
Canada. Domestic Substances List (DSL) Inventory Listed
Canada. Non-Domestic Substance Listing (NDSL) Not listed
Philippines. Inventory of Chemicals / Chemical Substances (PICCS) Listed
Korea. Existing Chemicals Inventory (KECI) Listed
China. Inventory of Existing Chemical Substances (IECSC) Listed
Mexico. National Inventory of Chemical Substances (INSQ) Listed
New Zealand. Inventory of Chemical Substances (NZIoC) Listed
Switzerland. Inventory of Notified New Substances (CHINV) Listed
Taiwan. National Existing Chemical Inventory (NECI) Listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

STATE REGULATIONS
California Prop. 65
Components none

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard/ Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS®</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>NFPA</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

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n-Propyl Acetate

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