



SHOWA DENKO K.K.

13-9, Shiba Daimon 1-Chome,  
Minato-Ku, Tokyo 105-8518 Japan

Date of issue : 2010/05/19

Revision date : 2016/08/15

## SAFETY DATA SHEET

### 1. Identification of the substance/preparation and of the company/undertaking

Trade name : n-Propyl acetate  
 Company/undertaking identification : SHOWA DENKO K.K.  
 Address : 13-9, Shiba Daimon 1-Chome, Minato-Ku, Tokyo 105-8518 Japan  
 Department name : Petrochemicals Division Organic Chemicals Department  
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 Emergency number : +81-97-521-5131(24hr), SHOWA DENKO K.K.,Oita Complex  
 Recommended uses and restrictions : Industrial use  
 Reference no. : OC-1079\_UN

### 2. Hazards identification

#### [GHS classification]

Physical hazards : Flammable liquids, Category 2  
 Health hazards : Acute toxicity (inhalation:vapour) Category 5  
 : Skin corrosion/irritation, Category 3  
 : Serious eye damage/eye irritation, Category 2B  
 : Specific target organ toxicity — single exposure, Category 1 (central nervous system)  
 : Specific target organ toxicity — Single exposure, Category 3, Narcosis  
 : Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation  
 Environmental hazards : Hazardous to the aquatic environment — Acute Hazard, Category 3  
 Other hazards than mentioned above are Not classified or Not applicable or Classification not possible.

#### [GHS label elements]

Hazard pictograms (GHS-JP) :



Signal word (GHS-JP) : Danger

Hazard statements (GHS-JP) : (H225) Highly flammable liquid and vapour  
 (H333) May be harmful if inhaled  
 (H316) Causes mild skin irritation  
 (H320) Causes eye irritation  
 (H370) Causes damage to organs (central nervous system)  
 (H335) May cause respiratory irritation  
 (H336) May cause drowsiness or dizziness

	(H402) Harmful to aquatic life
Precautionary statements	
Prevention precautionary statements	: (P210) Keep away from heat/sparks/open flames/hot surfaces. - No smoking (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 (P260) Do not breathe dust/fume/gas/mist/vapours/spray (P264) Wash hands, forearms and face thoroughly after handling (P270) Do not eat, drink or smoke when using this product (P271) Use only outdoors or in a well-ventilated area (P273) Avoid release to the environment (P280) Wear protective gloves/protective clothing/eye protection/face protection
Response Precautionary Statements	: (P303+P361+P353) IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower (P332+P313) If on skin and if skin irritation occurs, seek medical advice and attention (P304+P340) If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing (P312) Call a POISON CENTER or doctor/physician if you feel unwell (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 (P308+P311) IF exposed or concerned: Call a POISON CENTER or doctor (P370+P378) In case of fire: Use Carbon dioxide, Alcohol resistant foam, Powders for extinction
Storage precautionary statements	: (P403+P233) Store in a well-ventilated place. Keep container tightly closed (P403+P235) Store in a well-ventilated place. Keep cool (P405) Store locked up
Disposal precautionary statements	: (P501) Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 3. Composition/information on ingredients

Distinction of substance or mixture	: Substance
Generic name	: n-Propyl acetate
Synonyms	: 1-Acetoxypropane; Propyl acetate; Acetic acid, n-propyl ester; NPAC

Name	CAS No	Concentration	Formula
n-Propyl Acetate	109-60-4	100%	C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>

### 4. First aid measures

First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

- Wash contaminated clothing before reuse.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth.  
Immediately call a POISON CENTER or doctor/physician.
- Personal Protection in First Aid and Measures : Wear suitable protective clothing, gloves and eye or face protection.  
Equip rescue crew with proper protection.

## 5. Fire fighting measures

- Suitable extinguishing media : carbon dioxide (CO<sub>2</sub>)  
alcohol resistant foam  
Powders
- Unsuitable extinguishing media : Do not use water jet.
- Fire hazard : Highly flammable liquid and vapour.  
Heat may cause pressure rise with explosion of tanks/drums.  
In case of fire, corrosive and harmful gases come free.
- Firefighting instructions : In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.  
Apply water spray or fog to cool nearby equipment.  
Move undamaged containers from immediate hazard area if it can be done safely.
- Personal protection (Emergency response) : Use a self-contained breathing apparatus and also a protective suit.  
Do the fire fighting from windward side to avert inhale a hazardous gas.

## 6. Accidental release measures

- Personal Precautions, Protective Equipment and Emergency Procedures : Mark out the contaminated area with signs and prevent access to unauthorized personnel.  
Wear suitable protective clothing, gloves and eye or face protection  
Ventilate spillage area.  
Stop leak if safe to do so.
- Environmental precautions : Do not allow product to spread into the environment.  
Prevent entry to sewers and public waters.
- Methods and Equipment for Containment and Cleaning up : Collect leaking and spilled liquid in sealable containers as far as possible.  
Take up large spills with pump or vacuum and finish with dry chemical absorbent.
- Prevention Measures for Secondary Accidents : Eliminate all ignition sources if safe to do so.  
Use non-sparking tools.  
Prevent the build-up of electrostatic charge.  
Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

## 7. Handling and storage

- Handling
- Technical measures : Provide ventilation system and use necessary personal protective equipment as described in "8. EXPOSURE CONTROLS AND PERSONAL PROTECTION."
- Local and general ventilation : Provide local ventilations and a full ventilation system as described in "8. EXPOSURE CONTROLS AND PERSONAL PROTECTION."
- Handling the product : Do not breathe dust/fume/gas/mist/vapours/spray.  
Use only outdoors or in a well-ventilated area.  
Keep container tightly closed.
- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other

	<p>ignition sources. No smoking.          Use explosion-proof electrical/ventilating/lighting equipment.          Use only non-sparking tools.          Take precautionary measures against static discharge.          Prevent shock/impact.</p>
Hygiene measures	<p>: Do not eat, drink or smoke when using this product.          Wash contaminated clothing before reuse.          Always wash hands after handling the product.          Do not breathe dust/fume/gas/mist/vapours/spray.</p>
Storage precautionary statements	
Technical measures	<p>: Store locked up.          Ground/bond container and receiving equipment.          Store in tightly closed containers.</p>
Storage conditions	<p>: Open flames prohibited.          Keep out of direct sunlight.          Store, if possible, in a cool, well ventilated place away from incompatible materials.</p>
Material used in packaging/containers	<p>: Store in accordance with local/regional/national/international regulations.</p>

## 8. Exposure controls / Personal protection equipment

### Occupational exposure limits

n-Propyl Acetate

Exposure limits (ACGIH) : TWA 200 ppm, STEL 250 ppm

**Appropriate engineering controls** : Handle product only in closed system or provide appropriate exhaust ventilation.  
 Use explosion-proof electrical/ventilating/lighting equipment.  
 Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

### Protective equipment

Respiratory protection : Self contained breathing apparatus  
 Approved organic vapour respirator  
 Supplied-Air Respirator (SAR)

Hand protection : protective gloves.  
 Protective gloves made of rubber.  
 Time of penetration is to be checked with the glove producer.

Eye protection : Chemical goggles or face shield with safety glasses.

Skin and body protection : According to the conditions of use, protective gloves, apron, boots, head and face protection must be worn.

## 9. Physical and chemical properties

Appearance : Liquid

Colour : Colourless. clear

Odour : Pleasant (perfume). characteristic

Melting point : -93 °C

Boiling point : 101.3 °C

Flash point : 14 °C (closed cup)

Explosive limits (g/m<sup>3</sup>) : No data

Explosive limits (vol %) : 2 - 8 vol % (in Air)

Vapour pressure : 33.9 hPa (at 20 °C)

Specific gravity density : 0.886 (20 °C/ 20 °C)

Density	:	0.887 - 0.889 g/cm <sup>3</sup> (at 20 °C)
Solubility	:	18.9 g / L water (at 20 °C)
Log Pow	:	1.24
Auto-ignition temperature	:	430 °C

## 10. Stability and reactivity

Reactivity	:	Highly flammable liquid and vapour.
Chemical stability	:	Stable under normal conditions of use.
Possibility of hazardous reactions	:	Heating may cause violent combustion or explosion. May decompose under the influence of light. Decomposes on exposure to (strong) acids/bases.
Conditions to avoid	:	Direct sunlight. high temperatures, naked flames. on contact with incompatible materials.
Incompatible materials	:	Strong oxidizing agent, Strong acids, Strong bases
Hazardous decomposition products	:	Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

## 11. Toxicological information

### Toxicological information of n-Propyl Acetate

Acute toxicity (oral) - Description	:	Not classified. •Rat LD50 8700mg/kg (J-challenge, ACGIH), 9370mg/kg, 9800mg/kg (HSDB, IUCLID, RTECS)
Acute toxicity (dermal) - Description	:	Not classified. •Rabbit LD50 >17756mg/kg (J-challenge, ACGIH), >17760mg/kg, >20000mg/kg (HSDB, IUCLID, RTECS)
Acute toxicity (inhalation : vapour) - Description	:	May be harmful if inhaled. •Rat LC50(4hr) >4000ppm (16.68mg/L), <8000ppm(33.36mg/L) (By exposure to 8000 ppm, 4 of 6 animals died, but by exposure to 4000 ppm, none died.) (J-challenge)
Skin corrosion/irritation - Description	:	Causes mild skin irritation. •In a skin irritation test in which 500 mg was applied to rabbit skin in an open manner, slight irritation was observed. (J-challenge, IUCLID, RTECS)
Serious eye damage/eye irritation - Description	:	Causes eye irritation. •In EU, it is classified into R36. •In a worker who was exposed to the vapor at a concentration of 29 – 60 mg/L, conjunctival irritation was observed. (HSDB) •When its vapor is inhaled, the eye, skin and respiratory organ are irritated. (HSDB) •In an eye irritation test in which the test article was applied to rabbit eyes, slight irritation was observed. (J-challenge, IUCLID, RTECS) •An exposure test using cats, eye irritation was observed. (ACGIH)
Skin sensitization - Description	:	Classification not possible. •No information available.
Respiratory sensitization - Description	:	Classification not possible. •No information available.
Germ cell mutagenicity - Description	:	Classification not possible. •In an Ames test using Salmonella typhimurium, the results were

		negative. (J-challenge)
		•In a heteroploidy test using yeast, the results were negative. (J-challenge)
Carcinogenicity	:	Classification not possible. •No information available.
Reproductive toxicity - Description	:	Classification not possible. •No information available.
Specific target organ toxicity (single exposure) - Description	:	Causes damage to organs (central nervous system). May cause respiratory irritation. May cause drowsiness or dizziness. •In humans, it stimulates the airway and suppresses the central nerve. (PATTY) •In humans, it may affect the central nervous system and the liver. (HSFS) •In a test in which cats and mice were exposed by inhalation for 5 hours, suppressing effects on the central nervous system and narcotic effects were observed. (HSDB, ACGIH, RTECS) •When a cat was exposed to 2600 ppm, salivation and eye irritation were observed. (HSDB, ACGIH)
Specific target organ toxicity (repeated exposure) - Description	:	Classification not possible. •Owing to exposure during working, chest stenosis and coughing have been reported. (HSDB) •In a test in which cats were exposed by inhalation for 5 days, moderate irritation and salivation were observed. (IUCLID)
Aspiration hazard - Description	:	Classification not possible. •No information available.

## 12. Ecological information

### Ecological information of n-Propyl Acetate

Ecotoxicity	:	Harmful to aquatic life •Fishes (Fathead minnow) LC50(96hr) 60mg/L (HSDB, J-challenge) •Crustacea (Daphnia magna) EC50(48hr) 91.5mg/L, NOEC(48hr) 32.1mg/L (J-challenge) •Algae (Selenastrum) EC50(72hr) 363mg/L, NOEC(72hr) 83.2mg/L (J-challenge)
Persistence and degradability	:	•In biodegradability tests two weeks, it was a good degradability. (J-CHECK, HSDB)
Bioaccumulation	:	•logPow = 1.24 (J-challenge)
Mobility in soil	:	•No information available.
Ozone	:	Classification not possible. •No information available.

## 13. Disposal considerations

Ecology - waste materials	:	Dispose of contents/container to in accordance with local/regional/national/international regulations. Avoid release to the environment.
Contaminated container and packagingDisposal	:	Dispose of contents/container to in accordance with local/regional/national/international regulations. Empty the packaging completely prior to disposal.

## 14. Transport information

### International Regulations

UN-No.	:	1276
Class or division	:	3
Proper Shipping Name	:	N-PROPYL ACETATE
Packing group	:	II
Marine pollutant	:	No

## 15. Regulatory information

### Inventory status

Australia	Inventory of Chemical Substances (AICS)	Present
Canada	Domestic Substances List (DSL)	Present
China	Inventory of Existing Chemical Substances (IECSC)	39085
European Union	European Inventory of Existing Commercial Chemical Substances (EINECS)	203-686-1
Japan	Existing and New Chemical Substances (ENCS)	(2)-727
Korea	Existing Chemicals Inventory (KECI/KECL)	KE-29778
New Zealand	Inventory of Chemicals (NZIoC)	HSNO Approval: HSR001217
Philippines	Inventory of Chemicals and Chemical Substances (PICCS)	Present
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Present
United States	Toxic Substances Control Act (TSCA)	Present

Note: When using the product outside Japan, it must be handled in accordance with applied laws and regulations in that country or territory.

## 16. Other information

The statements, contents, figures and other physical and chemical properties are not guaranteed. Hazard assessment, which has been prepared on the basis of documents and other information currently available data, it does not cover all the documents were not so, please use caution when handling.