

# MASTER SAFETY DATA SHEET

25/3/04

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## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

DOW EUROPE GMBH

CH-8810 HORGEN SWITZERLAND

MEDICAL EMERGENCY PHONE NO from ... 31 115 694 982 (THE NETHERLANDS)  
(ASK FOR MEDICAL DEPARTMENT)Product Name: **N-PROPYL ACETATE**

LV70: 85037

Issue Date: June 02

Ref: UA012

Revised: Nov. 02

### Use of the substance/preparation

Industrial solvent. Ingredient for pharmaceutical preparations.

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Dangerous components (see section 16 for complete R-phrases):

			CAS	EC No
Propyl acetate	100 %	F, Xi; R11-36-	000109-60-4	203-686-1
		66-67		

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## 3. HAZARDS IDENTIFICATION

Highly flammable.

Irritating to eyes. Repeated exposure may cause skin dryness or cracking.

Vapours may cause drowsiness and dizziness.

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## 4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

### Inhalation

Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

### Skin Contact

Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse.

### Eye Contact

Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

### Ingestion

If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

### Note to Physician

Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote.

Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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## 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

For large fires, use: Water. Foam. For small fires, use: Carbon dioxide fire extinguishers. Dry chemical fire extinguishers.

### Extinguishing Media to Avoid

None known.

### Hazardous Combustion Products

Combustion products include: Carbon monoxide. Carbon dioxide.

### Protection of Firefighters

Wear positive-pressure self-contained breathing apparatus and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves).

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**Specific Fire or Explosion Hazards**

Vapours are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flashback may occur.

**Specific Methods of Firefighting**

Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Use water spray to disperse vapours, to cool surfaces or to protect personnel attempting to minimise damage and spills.

Electrically ground all equipment. Static ignition hazard can result from handling and use.

This material may produce a floating fire hazard.

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**6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Wear adequate personal protective equipment, see Section 8, EXPOSURE CONTROLS/PERSONAL PROTECTION.

**Environmental Precautions**

Contain liquid to prevent contamination of soil, surface water or ground water. Flushings and wash waters must be contained and prevented from entering into soil, waterways and ground water.

**Methods of Cleaning Up**

For smaller spills, and if the contaminated water can be properly disposed, deluge or flood the spill area with sufficient water to remove the product. Collect in suitable and properly labelled containers.

Eliminate all sources of ignition in vicinity of spill or released vapour to avoid fire or explosion.

Dispose of according to applicable regulations, see Section 13, DISPOSAL CONSIDERATIONS.

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**7. HANDLING AND STORAGE****Handling**

Practice care and caution to avoid skin and eye contact. Avoid breathing vapours.

Eliminate all ignition sources. Take precautions to avoid accumulation of static charge. Ground all handling and transfer operations to minimise build-up of static charges.

Provide adequate ventilation. Keep container closed.

Wash thoroughly after handling.

**Storage**

Store in original container.

Store containers tightly closed in a well ventilated area. Keep away from possible ignition sources. Keep away from heat source.

Store in a cool, dry place away from direct sunlight.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

ACGIH Threshold Limit Value (TLV) is 200 ppm TWA-8 hours and Short Term Exposure Limit (STEL) is 250 ppm.

### Engineering Controls

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Lethal concentrations may exist in areas with poor ventilation.

### Personal Protective Equipment

#### - Respiratory Protection

Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator.

For emergency and other conditions where the exposure guideline may be exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

#### - Skin Protection

For brief contact, no precautions other than clean body-covering clothing should be needed.

When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as face shield, gloves, boots, apron, or full body-suit will depend on operation.

Wear gloves made of: Butyl rubber. PVC.

Safety shower should be located in immediate work area.

Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.

#### - Eye/Face Protection

Use chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

Eye wash fountain should be located in immediate work area.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: transparent colourless
Odour	: sweet
Freezing point/range	: -95 deg.C
Boiling point/range	: 102 deg.C (1013 hPa)
Vapour pressure	: 33.3 hPa (20 deg.C)
Rel. vapour density (air=1)	: 3.5
Specific gravity	: 0.888 (20/20 deg.C)
Water solubility	: 2.0 %wt (20 deg.C)
pH	: not determined
Flash point	: 14 deg.C (TCC)
Flammability-LFL	: 1.7 %vol/vol (38 deg.C)
Flammability-UFL	: 8 %vol/vol

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## 10. STABILITY AND REACTIVITY

### Chemical Stability

Stable under normal handling and storage conditions, see Section 7, Handling and Storage.

### Conditions to Avoid

None known.

### Materials to Avoid

Strong oxidising agents. Nitric acid. Sodium hydroxide. Alkali metal hydroxide.

### Hazardous Decomposition Products

Thermal decomposition or burning may produce: Carbon dioxide. Carbon monoxide.

### Hazardous Reactions

None known.

### Hazardous Polymerisation

Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### - Ingestion

Low toxicity if swallowed. The oral LD50 for rats is 9800 mg/kg. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. If aspirated (liquid enters the lung), may be rapidly absorbed through the lungs and result in injury to other body systems.

#### - Skin Contact

Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD50 for skin absorption in rabbits is >20 mL/kg.

#### - Inhalation

In confined or poorly ventilated areas, vapours can readily accumulate and cause unconsciousness and death. The 4 hour LC50 for rats is APPROX.8000 ppm. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed.

### Irritation

#### - Skin

Prolonged contact is essentially nonirritating to skin. May cause more severe response on covered skin (under clothing, gloves).

#### - Eyes

May cause slight irritation with corneal injury. Vapours may cause eye irritation experienced as mild discomfort and redness.

#### - Inhalation

Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs.

### Sensitisation

No relevant information found.

### Developmental/Reproductive Effects

No relevant information found.

### Mutagenicity

In vitro mutagenicity studies were positive.

### Carcinogenicity

No relevant information found.

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**12. ECOLOGICAL INFORMATION****Mobility and Bioaccumulation Potential**

Bioconcentration potential is low (BCF less than 100 or log Pow less than 3). Measured log octanol/water partition coefficient (log Pow) is 1.24.

Henry's Law Constant (H) is estimated to be 2.38E-04 atm.m<sup>3</sup>/mol.  
 Potential for mobility in soil is very high (Koc between 0 and 50).  
 Soil organic carbon/water partition coefficient (Koc) is estimated to be 11-111.

**Degradation**

Material is expected to be readily biodegradable.  
 Biodegradation reached in Closed Bottle Test after 20 days: 72 %. In the atmospheric environment the material is estimated to have a tropospheric half-life of 40 hours.

**Aquatic Toxicity**

Material is harmful to aquatic organisms (LC50/EC50/IC50 between 10 and 100 mg/L in most sensitive species).

Acute LC50 for fathead minnow (*Pimephales promelas*) is 80 mg/L. Acute LC50 for golden orfe (*Leuciscus idus*) is 140 mg/L.

Acute LC50 for water flea *Daphnia magna* is 100.5 mg/L. Acute immobilisation EC50 for water flea *Daphnia magna* is 318 mg/L.

**Other Information**

The 16 hour growth inhibition EC50 in bacteria is >1000 mg/L.

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**13. DISPOSAL CONSIDERATIONS****Disposal**

Any disposal practice must be in compliance with all local and national laws and regulations. All efforts to recycle material should be made.

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**14. TRANSPORT INFORMATION****Road & Rail**

Proper shipping name: 1276 N-PROPYL ACETATE

Truck/Rail ADR/RID : 3

Label : 3

Classification Code : F1

Packing Group : II

Kemler Code : 33

UN Number

: 1276

Tremcard Nr. CEFIC : 30GF1-I+I

**Sea**

Proper shipping name: n-PROPYL ACETATE

Sea - IMO/IMDG Class: 3

UN Nr : 1276

Label: 3

Packing Group : II

EMS : 3-07

MFAG : 330

Marine Pollutant : N (Y/N)



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local translations and adaptations. It is your responsibility to ensure that any Safety Data Sheet taken or adapted from this system for re-distribution or use complies with all the laws and regulations which apply to any such use or re-distribution.