

# Material Safety Data Sheet

In accordance with REACH Regulation (EC) no. 1907/2006

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

**Produktidentificator:** PAKOL

**PR-nr.:** -

**Relevant identified uses of the substance or mixture and uses advised against:**  
The product is used as liquid jointing compound for sealing various threads with hemp.

**Details of the supplier of the safety data sheet:**

**Producer:**

**Company:** Unipak A/S  
Marktoften 3c  
8464 Galten  
Denmark

Unipak A/S  
Marktoften 3c  
8464 Galten  
Denmark

**Contactperson:** lve@eurofins.dk

**Phone no. for emergencies:** +45 86 26 11 77 (Unipak, during working hours)  
+45 82 12 12 12 (Bispebjerg hospital, Giftlinje ("Toxins Line"))

**Date:** 12.11.2012

The logo for Unipak, featuring the word "Unipak" in a bold, yellow, sans-serif font with a blue outline.

## 2. Hazards identification

### Classification of the substance or mixture:

The product is classified as dangerous with R10 according to the Danish Environment Ministry Directive No 1075/2011.

The product can be irritating to skin, eyes and respiratory system. The product contains organic solvents which when inhaled in large quantities over time can damage the central nervous system. The product is flammable.

The full text of R-and H-phrases: see section. 16

### Labeling elements:

#### Labelling according to (1075/2011)

Flammable (R10)

Keep away from sources of ignition - No smoking (S23)

Other hazards: None known.

PBT/vPvB: Components are not PBT/vPvB according to the criteria in REACH Annex XIII.

## 3. Composition/information on ingredients

### Substances: -

### Mixtures:

<u>Substance name</u>	<u>CAS-no.</u>	<u>EF-no.</u>	<u>Indeks-no.</u>	<u>Veight- %</u>	<u>REACH reg.-no.</u>	<u>Classification</u>
Ethanol <sup>1)</sup>	64-17-5	200-578-6	603-002-00-5	30-60	-	F;R11 <b>CLP*:</b> Flam Liq.2;H225
2-Propanol <sup>1)</sup>	67-63-0	200-661-7	603-117-00-0	1-5	-	F;R11 Xi;R36 R67 <b>CLP:</b> Flam Liq. 2;H225 Eye Irrit 2;H319 STOT SE 3;H336

<sup>1)</sup> The substance is an organic solvent

ClAP\*: European Parliament and Council Regulation (EC) no. 1272/2008.

The full text of R-and H-phrases: see section. 16

## 4. First-aid measures

### Description of first aid measures:

#### Inhalation:

Seek fresh air. **Mild cases:** Keep still under observation. At discomfort: Seek medical attention. **Severe cases:** Place unconscious in recovery position with the head in a low position and keep warm. If breathing has stopped, administer artificial respiration; Seek medical attention or ambulance immediately.

#### Skincontact:

Wash the skin with plenty of soap and water. After washing, rub skin with a thick cream. If symptoms persist: Seek medical attention.

#### Eye contact:

Open the eye, rinse immediately with water or saline for at least 15 minutes. Remove contact lenses. If symptoms persist: Seek medical attention. Continue rinsing the eye during the transportation to doctor/hospital.

#### 4. First-aid measures

**Swallowing:**

Immediately rinse mouth thoroughly and drink plenty of water. If immediate medical attention is not possible, do not induce vomiting. Keep the head low to prevent aspiration. Call an ambulance immediately. Do not administer liquid to unconscious. At unconsciousness see "Inhalation".

**Burns:**

Rinse with water until pain ceases. While flushing, remove clothes which do not adhere to the skin area. If medical treatment is necessary, continue flushing until medical attention is obtained.

**Most important symptoms and effects, both acute and delayed:**

The product can be irritating to skin, eyes and respiratory system. The product contains organic solvents which when inhaled in large quantities over time can damage the central nervous system and cause dizziness, headache and malaise.

**Indication of any immediate medical attention and special treatment needed:**

Unconscious: Immediately get medical attention. Show this safety data sheet to the doctor or emergency room.

#### 5. Fire-fighting measures

**Extinguishing media:**

Water spray (never water jet - spreads the fire), CO<sub>2</sub>, foam or powder.

**Special hazards arising from the substance or mixture:**

The product is flammable. Avoid inhalation of smoke gases.  
Fire creates the following decomposition products: carbon dioxide and carbon monoxide.

**Advice for firefighters:**

As far as possible remove the product from areas threatened by fire, or cool with water. Wear self-contained breathing apparatus for firefighting.

#### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment - see section. 8 Ensure good ventilation.  
Avoid sources of ignition. No smoking.

**Environmental precautions:**

Avoid discharge into drains - see section. 12 At release to the external environment, contact the environmental authorities.

**Methods and materials for containment and cleaning up:**

Large amounts; Cover / absorb with sand or other absorbent material. Collected and handled as chemical waste. Rinse thoroughly with water. Further handling of spillage - see section 13.

**Reference to other sections:**

See above.

## 7. Handling and storage

### Precautions for safe handling:

Avoid inhalation of vapors and aerosols. Ensure good ventilation. If this is not possible, use approved respiratory protection. See sections. 8

Avoid contact with skin, eyes and clothing. Wash promptly if skin becomes contaminated. Change contaminated clothing. Access to water supply and eye wash facilities.

Do not use near fire, sparks or hot surfaces. Electrical equipment should be ATEX approved.

No smoking. Ensure access to emergency shower.

### Conditions for safe storage, including any incompatibilities:

Store in tightly closed original container in a dry, well-ventilated and cool place. Keep separate from food, feedstuffs.

Fire hazard class: II-2, A storage unit: 5 liter.

### Specific use:

See application - section. 1

## 8. Exposure controls/personal protection

### Control parameters:

The following notifiable ingredients have a threshold according to the notice of the limit values for substances and materials No 1134/2011:

Ethanol	1000 ppm = 1900 mg/m <sup>3</sup>
2-Propanol (Isopropylalkohol)	200 ppm = 490 mg/m <sup>3</sup>

Compliance with limit values can be checked by occupational hygiene measurements.

**DNEL:** No CSR.

**PNEC:** No CSR.

### Exposure control:

Appropriate measures for exposure control:

No special.

### Personal protective equipment:

Inhalation: In case of inadequate ventilation: Use self-contained breathing apparatus according to EN14594. With short-term inadequate ventilation (less than 3 hours) may be used half-mask (EN140) or full face mask (EN136) with replaceable gas filter type AX according to EN 14387th The filter is for single use only. Read the instruction.

Skin: Wear protective gloves of butyl rubber or nitrile \*). It is recommended to change the glove if spilled on it. Wash hands thoroughly with soap and water.

\*) It is important to note that there are many different types of gloves, why it is necessary to document the effectiveness with regard to the actual product.

Eyes: Safety goggles at risk of product entering the eyes.

Measures to reduce environmental exposure:

Any residues and waste from production, must be collected and disposed of as mentioned in para. 13

Treatment and discharge of waste water shall be in accordance with local regulations.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties:

Appearance: Orange liquid

Vapour pressure: -

Odour: -

Vapor Density: -

Odour threshold: -

Density: 1,0 g/cm<sup>3</sup>

pH:

Solubility in water: Insoluble

Melting point/freezingpoint:-

Partition coefficient n-octanol/water: -

Initial boiling point and boiling range: -

Auto-ignition temperature: 235°C

Flash point: 36°C

Decomposition temperature: -

## 9. Physical and chemical properties

Evaporation rate: -

Viscosity: -

Flammability: -

Explosive properties: -

Upper / lower flammability or explosive limits vol.%: -

Oxidizing properties: -

Other information: -

-: Means no data or not applicable

## 10. Stability and reactivity

### Reactivity:

In contact with strong oxidizing agents heat can be created and formation of flammable vapors formed. When heated fumes are released that can ignite and form explosive mixtures with air.

### Chemical stability:

Stable under recommended storage conditions.

### Possibility of hazardous reactions:

No known.

### Conditions to avoid:

No known

### Materials to avoid:

None known.

### Farlige nedbrydningsprodukter:

Decomposition products at fire can be; carbon monoxide.

## 11. Toxicological information

### Information on toxicological effects:

Hazard class	Data	Test	Data Source
	<b>Ethanol:</b>		
Akut toxicity:			
Inhalation	LC <sub>50</sub> (rat): = 124,7 mg/l/4h	-	IUCLID
Dermal	LD <sub>50</sub> (rabbit) : = 20000 mg/kg	-	IUCLID
Oral	LD <sub>50</sub> (rat) : = 1501 mg/kg	-	IUCLID
Corrosion/irritation:	Skin (rabbit): Not irritating to moderately irritating. Eye (rabbit): Moderate to severe irritating	- -	IUCLID IUCLID
Sensitization	No data available	-	-
CMR:	Carcinogenic effects: Effect on mice Mutagenicity: Effect on mice and rats Fertility toxicity: Effect on mice and rats Embryo damaging effects: Effect on mice and rats	- Ames test - -	IUCLID IUCLID IUCLID IUCLID
	<b>2-Propanol:</b>		
Akut toxicity:			
Inhalation	LC <sub>50</sub> (rat):= 72,6 mg/l/4h	-	IUCLID
Dermal	LD <sub>50</sub> (rabbit) = 12870 mg/kg	-	IUCLID
Oral	LD <sub>50</sub> (rat) = 4396 mg/kg	-	IUCLID
Corrosion/irritation:	Skin (rabbit):Not irritating Eye (rabbit): Irritating	Draize Draize	IUCLID IUCLID
Sensitization	No data available	-	-
CMR:	Carcinogenic effects: No data available Mutagenicity: Negative in tests Fertility toxicity: Weak / No effect Embryo damaging effects: No effect	- Ames - -	IUCLID IUCLID IUCLID IUCLID

## 11. Toxicological information

Likely routes of exposure: Skin, lungs and gastrointestinal tract.

### Symptoms:

### Inhalation:

Product can irritate the respiratory system and may cause dizziness, headache and general malaise.

### Skin:

The product can be irritating to the skin..

### Eyes:

Product is irritating to the eyes.

### Ingestion:

Ingestion may cause nausea and vomiting. See "Inhalation"

### Long-term effects:

Repeated or prolonged exposure to the product can damage the central nervous system.

## 12. Ecological information

### Toxicity:

Aquatic	Data	Test (media)	Data source
	<b>Ethanol:</b>		
Fish	LC <sub>50</sub> ( <i>Pimephales promelas</i> , 96h) = 15,3 mg/l	FW	IUCLID
Crustaceans	EC <sub>50</sub> ( <i>Daphnia magna</i> , 24h) = 10800 mg/l	-	IUCLID
Algae	EC <sub>50</sub> ( <i>Chlorella pyrenoidosa</i> ) = 9310 mg/l	-	IUCLID
	<b>2-Propanol:</b>		
Fish	LC <sub>50</sub> ( <i>Leuciscus idus</i> , 48h) > 1000 mg/l	FW	IUCLID
Crustaceans	IC <sub>50</sub> ( <i>Daphnia magna</i> , 24h) > 9700 mg/l	-	-
Algae	EC <sub>50</sub> ( <i>Scenedesmus subspicatus</i> , 72h) > 1000 mg/l	-	-

There are no adequate data of the ingredients for an environmental classification according to the Danish Environment Ministry criteria.

### Persistence and degradability:

No data available.

### Bioaccumulative potential:

No data available.

### Mobility in soil:

No data available.

### Results of PBT and vPvB assessment:

Components are not PBT / vPvB according to the criteria in Reach Annex XIII.

### Other adverse effects:

None known.

## 13. Disposal

### Waste treatment methods:

The product must be considered as hazardous waste. Use the municipal collection and removal system.

### Chemical Group:

Z

### Waste fraction:

05.00

### EAK code:

16 05 04

## 14. Transport information

This product is considered hazardous for transport. Carriage other than those mentioned are not relevant

**UN-number:** 1993  
**Transport hazard class (es):** 3

**UN proper shipping name:**  
FLAMMABLE LIQUID N.O.S.  
**Packing group:** III

**Environmental hazards:** None in relation to transport regulations

**Special precautions for user:** None

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

## 15. Regulatory information

### Regulations / legislation specific for the substance or mixture with respect to safety, health and environment:

Not for use by persons under 18 years (except apprentices). Not for use by persons under 18 years (except apprentices). A workplace assessment must ensure that employees are not exposed to substances which may pose a risk in pregnancy or lactation (see The Danish Working Environment Authority Order on the performance of the work).

**Chemical Safety assessment:**  
No CSA.

## 16. Other information

### Hazard Phrases referred to under sections 2, 3 and 16:

R10: Flammable  
R11: Highly flammable  
R36: Irritating to eyes  
R67: Vapours may cause drowsiness and dizziness  
H225: Highly flammable liquid and vapour  
H226: Flammable liquid and vapour  
H319: Causes serious eye irritation  
H336: May cause drowsiness or dizziness

### Abbreviations:

At = The Danish Working Environment Authority ( Arbejdstilsynets) threshold list.  
BOD: Biochemical oxygen demand  
CMR = Carcinogenicity, mutagenicity and reproductive toxicity  
COD: Chemical oxygen demand  
CSA = Chemical Safety Assessment  
CSR = Chemical Safety Report  
DNEL = Derived No-Effect level  
EC<sub>50</sub> = Effect Concentration 50%  
K og S = Kemikalier og Sikkerhed, Nyt Teknisk Forlag  
LC<sub>50</sub> = Lethal Concentration 50%  
LD<sub>50</sub> = Lethal Dose 50%  
OECD: Organisation for Economic Co-operation and Development  
PBT= Persistent, Bioaccumulative, Toxic  
PNEC = Predicted No-Effect Concentration  
vPvB = very Persistent, very Bioaccumulative

### Literature:

ECHA = European Chemical Agency  
IUCLID = International Uniform Chemical Information Database  
RTECS = Registry of Toxic Effects of Chemical Substances  
Ecotox = database (ECOTOX) with chemical toxicity developed by f U.S.EPA, Office of Research and Development (ORD), and National Health and Environmental Effects Research Laboratory's (NHEERL's) Mid-Continent Ecology Division (MED)

### Advice on training/instruction:

The product should only be used by persons well instructed in the proper work procedure and familiar with the contents of this safety data sheet.

## 16. Other information

### Further information:

The safety data sheet is prepared according to REACH Regulation (EC) No 1907/2006.  
The safety data sheet is updated. Latest version: 11.3.2010. Original version 19.05.1998

**Changes since the previous version:** Item 1-16.

### Classification of the substance or mixture:

The product is classified according to the CLP with Flam Liq. 2; H226.

The product can be irritating to eyes, respiratory system and skin. The product contains organic solvents which when inhaled in large quantities over time can damage the central nervous system.

The product is flammable.

The full text of the H-phrases: see section. 16

### Labelling elements:

#### Labelling according to CLP (1272/2008)

Flammable liquid and vapour (H222)

Keep away from heat/sparks/open flames/hot surfaces – No smoking (P210)

Keep container tightly closed (P233)



Warning

Other hazards: None known.

PBT / vPvB: Components are not PBT / vPvB according to the criteria in REACH Annex XIII.

**Prepared by: Eurofins Product Testing A/S, Smedeskovvej 38, 8464 Galten, tlf. 70 22 42 76, fax 70 22 42 75**