



# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

## PERMEX 050

Version number: 3.0  
Replaces version of: 2019-07-22 (2)

Revision: 2020-09-29  
First version: 2017-03-22

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

<b>Trade name</b>	<b>PERMEX 050</b>
<b>Registration number (REACH)</b>	Not relevant (mixture).
<b>CAS number</b>	not relevant (mixture)

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

<b>Relevant identified uses</b>	Impregnating product
---------------------------------	----------------------

#### 1.3 Details of the supplier of the safety data sheet

Uniter Chemie GmbH Lötscher Weg 48 D-41334 Nettetal Germany	Telephone: ++49 (0) 2153 - 9789-0 Telefax: ++49 (0) 2153 - 9789-29 e-mail: info@uniter.com
--	--

<b>e-mail (competent person)</b>	info@uniter.com
----------------------------------	-----------------

<b>National contact</b>	++49 (0) 2153 - 9789 - 15
-------------------------	---------------------------

#### 1.4 Emergency telephone number

As above or nearest toxicological information centre.

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Classification				
Section	Hazard class	Category	Hazard class and category	Hazard statement
2.6	flammable liquid	3	Flam. Liq. 3	H226
3.10	aspiration hazard	1	Asp. Tox. 1	H304
4.1C	hazardous to the aquatic environment - chronic hazard	4	Aquatic Chronic 4	H413

For full text of abbreviations: see SECTION 16

# PERMEX 050

## The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.  
Spillage and fire water can cause pollution of watercourses.

## 2.2 Label elements

### Labelling according to Regulation (EC) No 1272/2008 (CLP)

**Signal word** danger

### Pictograms

GHS02, GHS08



### Hazard statements

- H226** Flammable liquid and vapour.  
**H304** May be fatal if swallowed and enters airways.  
**H413** May cause long lasting harmful effects to aquatic life.

### Precautionary statements

- P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
**P243** Take action to prevent static discharges.  
**P273** Avoid release to the environment.  
**P301+P310** IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
**P303+P361+P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
**P331** Do NOT induce vomiting.  
**P403+P235** Store in a well-ventilated place. Keep cool.  
**P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

### Supplemental hazard information

**EUH066** Repeated exposure may cause skin dryness or cracking.

### Hazardous ingredients for labelling

Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates  
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates  
Hydrocarbons, C11-C14, Isoalkanes, Cycloalkanes, <2% Aromates

## 2.3 Other hazards

There is no additional information.

### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

# PERMEX 050







## SECTION 3: Composition/information on ingredients

### 3.1 Substances




Not relevant (mixture).

### 3.2 Mixtures

#### Description of the mixture

Hazardous ingredients					
Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	EC No 918-167-1  REACH Reg. No 01-2119472146-39-XXXX	25 – < 50	Flam. Liq. 3 / H226 Asp. Tox. 1 / H304 Aquatic Chronic 4 / H413	 	
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	CAS No 246538-78-3  EC No 920-901-0  REACH Reg. No 01-2119456810-40-XXXX	10 – < 25	Asp. Tox. 1 / H304		
Hydrocarbons, C11-C14, Isoalkanes, Cycloalkanes, <2% Aromates	EC No 927-285-2  REACH Reg. No 01-2119480162-45-XXXX	10 – < 25	Asp. Tox. 1 / H304		
n-butyl acetate	CAS No 123-86-4  EC No 204-658-1  Index No 607-025-00-1  REACH Reg. No 01-2119485493-29-XXXX	2 – < 5	Flam. Liq. 3 / H226 STOT SE 3 / H336	 	GHS-HC IOELV

## PERMEX 050

<b>Hazardous ingredients</b>					
Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
propan-2-ol	CAS No 67-63-0  EC No 200-661-7  Index No 603-117-00-0  REACH Reg. No 01-2119457558-25-XXXX	2 – <5	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336	 	GHS-HC
Poly(hexadecyl acrylate/2-Hydroxyethyl methacrylate/octadecyl methacrylate/3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl methacrylate	CAS No 1793072-86-2  EC No 938-722-1	1 – <2	Acute Tox. 2 / H330		

### Notes

GHS- Harmonised classification (the classification of the substance corresponds to the entry in the list according to

HC: 1272/2008/EC, Annex VI)

IOELV: Substance with a community indicative occupational exposure limit value

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General notes

Take off immediately all contaminated clothing.

In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following inhalation

Provide fresh air.

Mouth to mouth resuscitation should be avoided. Use alternative methods, preferably with oxygen or compressed air driven apparatus.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

#### Following skin contact

Wash with plenty of soap and water.

#### Following eye contact

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

## **Following ingestion**

Rinse mouth. Do not induce vomiting.  
Call a physician immediately.

## **Notes for the doctor**

None.

## **4.2 Most important symptoms and effects, both acute and delayed**

Death following aspiration.

## **4.3 Indication of any immediate medical attention and special treatment needed**

None.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

water spray, alcohol resistant foam, fire extinguishing powder, carbon dioxide (CO<sub>2</sub>)

#### **Unsuitable extinguishing media**

water jet

### **5.2 Special hazards arising from the substance or mixture**

Hazardous decomposition products: Section 10.

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture.  
Solvent vapours are heavier than air and may spread along floors.

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

#### **Hazardous combustion products**

carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), hydrogen fluoride (HF)

### **5.3 Advice for firefighters**

Keep containers cool with water spray.

In case of fire and/or explosion do not breathe fumes.

Co-ordinate firefighting measures to the fire surroundings.

Do not allow firefighting water to enter drains or water courses.

Collect contaminated firefighting water separately.

Fight fire with normal precautions from a reasonable distance.

#### **Special protective equipment for firefighters**

use suitable breathing apparatus

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Remove persons to safety.

Ventilate affected area.

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

#### For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

Retain contaminated washing water and dispose of it.

If substance has entered a water course or sewer, inform the responsible authority.

### 6.3 Methods and material for containment and cleaning up

#### Advice on how to clean up a spill

Collect spillage.

Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

#### Appropriate containment techniques

Use of adsorbent materials.

#### Other information relating to spills and releases

Place in appropriate containers for disposal.

Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5.

Personal protective equipment: see section 8.

Incompatible materials: see section 10.

Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

## **Specific notes/details**

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

## **Measures to protect the environment**

Avoid release to the environment.

## **Advice on general occupational hygiene**

Do not eat, drink and smoke in work areas.

Wash hands after use.

Preventive skin protection (barrier creams/ointments) is recommended.

Remove contaminated clothing and protective equipment before entering eating areas.

## **7.2 Conditions for safe storage, including any incompatibilities**

### **Explosive atmospheres**

Keep container tightly closed and in a well-ventilated place.

Use local and general ventilation.

Keep cool.

Protect from sunlight.

### **Flammability hazards**

Keep away from sources of ignition - No smoking.

Protect from sunlight.

### **Incompatible substances or mixtures**

Incompatible materials: see section 10.

### **Protect against external exposure, such as**

heat

### **Consideration of other advice**

Keep away from food, drink and animal feeding stuffs.

### **Ventilation requirements**

Provision of sufficient ventilation.

### **Packaging compatibilities**

Only packagings which are approved (e.g. acc. to ADR) may be used.

## **7.3 Specific end use(s)**

No information available.

# PERMEX 050

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)									
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Notation	Source
EU	n-butyl acetate	123-86-4	IOELV	50	241	150	723		2019/1831/EU
GB	cycloalkanes (>C7)		WEL		800				EH40/2005
GB	normal and branched chain alkanes (>C7)		WEL		1,200				EH40/2005
GB	butyl acetate	123-86-4	WEL	150	724	200	966		EH40/2005
GB	propan-2-ol	67-63-0	WEL	400	999	500	1,250		EH40/2005

#### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
n-butyl acetate	123-86-4	DNEL	300 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
n-butyl acetate	123-86-4	DNEL	300 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
n-butyl acetate	123-86-4	DNEL	11 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
n-butyl acetate	123-86-4	DNEL	35.7 mg/m <sup>3</sup>	human, inhalatory	consumer (private households)	chronic - systemic effects
n-butyl acetate	123-86-4	DNEL	35.7 mg/m <sup>3</sup>	human, inhalatory	consumer (private households)	chronic - local effects
n-butyl acetate	123-86-4	DNEL	6 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects



## PERMEX 050

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
n-butyl acetate	123-86-4	DNEL	2 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
propan-2-ol	67-63-0	DNEL	500 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
propan-2-ol	67-63-0	DNEL	888 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
propan-2-ol	67-63-0	DNEL	89 mg/m <sup>3</sup>	human, inhalatory	consumer (private households)	chronic - systemic effects
propan-2-ol	67-63-0	DNEL	319 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
propan-2-ol	67-63-0	DNEL	26 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects

Relevant PNECs of components of the mixture				
Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
n-butyl acetate	123-86-4	PNEC	0.18 mg/l	freshwater
n-butyl acetate	123-86-4	PNEC	0.018 mg/l	marine water
n-butyl acetate	123-86-4	PNEC	35.6 mg/l	sewage treatment plant (STP)
n-butyl acetate	123-86-4	PNEC	0.981 mg/kg	freshwater sediment
n-butyl acetate	123-86-4	PNEC	0.098 mg/kg	marine sediment
n-butyl acetate	123-86-4	PNEC	0.09 mg/kg	soil
propan-2-ol	67-63-0	PNEC	140.9 mg/l	marine water
propan-2-ol	67-63-0	PNEC	2,251 mg/l	sewage treatment plant (STP)
propan-2-ol	67-63-0	PNEC	552 mg/kg	freshwater sediment
propan-2-ol	67-63-0	PNEC	552 mg/kg	marine sediment
propan-2-ol	67-63-0	PNEC	140.9 mg/l	freshwater
propan-2-ol	67-63-0	PNEC	28 mg/kg	soil

**8.2 Exposure controls**

**Appropriate engineering controls**

General ventilation.

**Individual protection measures (personal protective equipment)**

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

Protective gloves		
Material	Material thickness	Breakthrough times of the glove material
these information are not available	these information are not available	these information are not available

Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Other protection measures**

Protective clothing against liquid chemicals.

**Respiratory protection**

Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

**Environmental exposure controls**

Use appropriate container to avoid environmental contamination.

Keep away from drains, surface and ground water.

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**Appearance**

Physical state	Liquid
Form	Fluid
Colour	Colourless to yellowish
Odour	Characteristic
Odour threshold	These information are not available

**Other safety parameters**

pH (value)	Not determined
------------	----------------

## PERMEX 050

---

Melting point/freezing point	These information are not available
Initial boiling point and boiling range	82 – 196 °C
Flash point	<60 °C
Evaporation rate	These information are not available
Flammability (solid, gas)	Not relevant (fluid)

### **Explosive limits**

**Lower explosion limit (LEL)** 0.6 vol%

**Upper explosion limit (UEL)** 12 vol%

Vapour pressure These information are not available

Density 0.76 – 0.96 g/cm<sup>3</sup> at 20 °C

Vapour density These information are not available

Relative density These information are not available

### **Solubility(ies)**

**Water solubility** Not miscible in any proportion

### **Partition coefficient**

n-octanol/water (log KOW) These information are not available

Auto-ignition temperature These information are not available

Relative self-ignition temperature for solids  
(Fluid) Not relevant

Decomposition temperature These information are not available

### **Viscosity**

**Kinematic viscosity** <20.5 mm<sup>2</sup>/s at 40 °C

**Dynamic viscosity** These information are not available

Explosive properties Not explosive

Oxidising properties Shall not be classified as oxidising

## **9.2 Other information**

None

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

Risk of ignition.

If heated:

risk of ignition

**10.2 Chemical stability**

See below "Conditions to avoid".

**10.3 Possibility of hazardous reactions**

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture.

**10.4 Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

**10.5 Incompatible materials**

acids, oxidisers

**10.6 Hazardous decomposition products**

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.

Hazardous combustion products: see section 5.

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Classification procedure**

If not otherwise specified the classification is based on:

Ingredients of the mixture (additivity formula).

**Classification according to GHS (1272/2008/EC, CLP)**

**Acute toxicity**

Shall not be classified as acutely toxic.

<b>Acute toxicity estimate (ATE) of components of the mixture</b>			
<b>Name of substance</b>	<b>CAS No</b>	<b>Exposure route</b>	<b>ATE</b>
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates		inhalation: dust/mist	5 mg <sub>I</sub> /4h
propan-2-ol	67-63-0	inhalation: vapour	20 mg <sub>I</sub> /4h

## PERMEX 050

<b>Acute toxicity estimate (ATE) of components of the mixture</b>			
<b>Name of substance</b>	<b>CAS No</b>	<b>Exposure route</b>	<b>ATE</b>
Poly(hexadecyl acrylate/2-Hydroxyethyl methacrylate/octadecyl methacrylate/3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl methacrylate	1793072-86-2	inhalation: vapour	0.5 mg/l/4h
Poly(hexadecyl acrylate/2-Hydroxyethyl methacrylate/octadecyl methacrylate/3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl methacrylate	1793072-86-2	inhalation: dust/mist	0.29 mg/l/4h

<b>Acute toxicity of components of the mixture</b>								
<b>Name of substance</b>	<b>EC No</b>	<b>Exposure route</b>	<b>End-point</b>	<b>Value</b>	<b>Species</b>	<b>Method</b>	<b>Source</b>	<b>Notes</b>
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1	oral	LD0	>5,000 mg/kg	rat	OECD Guideline 401	ECHA	read - across
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1	dermal	LD0	>2,000 mg/kg	rat	OECD Guideline 402	ECHA	read - across
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1	inhalation: dust/mist	LC0	>5,600 mg/l/4h	rat	OECD Guideline 403	ECHA	read - across
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	920-901-0	oral	LD50	>5,000 mg/kg	rat	OECD Guideline 401	ECHA	read - across
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	920-901-0	inhalation: dust/mist	LC50	≥6,100 mg/m <sup>3</sup> /4h	rat	OECD Guideline 403	ECHA	read - across
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	920-901-0	dermal	LD50	>2,000 mg/kg	rat	OECD Guideline 402	ECHA	read - across
Hydrocarbons, C11-C14, Isoalkanes, Cycloalkanes, <2% Aromates	927-285-2	oral	LD0	>5,000 mg/kg	rat	OECD Guideline 401	ECHA	read - across

## PERMEX 050

Acute toxicity of components of the mixture								
Name of substance	EC No	Exposure route	End-point	Value	Species	Method	Source	Notes
Hydrocarbons, C11-C14, Isoalkanes, Cycloalkanes, <2% Aromates	927-285-2	dermal	LD0	≥3,160 mg/kg	rabbit	OECD Guideline 402	ECHA	read - across
Hydrocarbons, C11-C14, Isoalkanes, Cycloalkanes, <2% Aromates	927-285-2	inhalation: dust/mist	LC0	≥5,600 mg/m <sup>3</sup> /4h	rat	OECD Guideline 403	ECHA	read - across
n-butyl acetate	204-658-1	oral	LD50	10,760 – 12,789 mg/kg	rat	OECD Guideline 423	ECHA	
n-butyl acetate	204-658-1	dermal	LD0	>14,000 mg/kg	rabbit	OECD Guideline 402	ECHA	
propan-2-ol	200-661-7	oral	LD50	5,840 mg/kg	rat	OECD Guideline 401	ECHA	
propan-2-ol	200-661-7	dermal	LD50	13,100 mg/kg	rabbit	OECD Guideline 402	ECHA	
Poly(hexadecyl acrylate/2-Hydroxyethyl methacrylate/octadecyl methacrylate/3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl methacrylate	938-722-1	oral	LD50	>5,000 mg/kg	rat			
Poly(hexadecyl acrylate/2-Hydroxyethyl methacrylate/octadecyl methacrylate/3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl methacrylate	938-722-1	inhalation: dust/mist	LC50	0.29 mg/l/4h	rat			

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

## **Respiratory or skin sensitisation**

### **Skin sensitisation**

Shall not be classified as a skin sensitiser.

### **Respiratory sensitisation**

Shall not be classified as a respiratory sensitiser.

### **Germ cell mutagenicity**

Shall not be classified as germ cell mutagenic.

### **Carcinogenicity**

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

### **Reproductive toxicity**

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

### **Specific target organ toxicity - single exposure**

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

### **Specific target organ toxicity - repeated exposure**

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

### **Aspiration hazard**

May be fatal if swallowed and enters airways.

### **Symptoms related to the physical, chemical and toxicological characteristics**

If aspirated:

pneumonia, death following aspiration

### **Other information**

Repeated exposure may cause skin dryness or cracking.

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### **Aquatic toxicity (acute)**

Test data are not available for the complete mixture.

#### **Aquatic toxicity (acute) of components of the mixture**

## PERMEX 050

Aquatic toxicity (acute) of components of the mixture								
Name of substance	EC No	Endpoint	Value	Species	Method	Source	Notes	Exposure time
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1	LL50	>1,000 mg/l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 203	ECHA	read-across	96 h
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1	LL50	>1,000 mg/l	Chaetogammarus marinus	EPA OPPTS 850.1020	ECHA	read-across	48 h
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1	EL50	>1,000 mg/l	daphnia magna	OECD Guideline 202	ECHA	read-across	48 h
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1	EL50	>1,000 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA	read-across	72 h
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	920-901-0	LL50	>1,000 mg/l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 203	ECHA	read-across	96 h
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	920-901-0	LL50	>1,000 mg/l	daphnia magna	OECD Guideline 202	ECHA	read-across	72 h
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	920-901-0	EL50	>1,000 mg/l	daphnia magna	OECD Guideline 202	ECHA		48 h
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	920-901-0	EL50	>1,000 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA	read-across	72 h



## PERMEX 050

Aquatic toxicity (acute) of components of the mixture								
Name of substance	EC No	Endpoint	Value	Species	Method	Source	Notes	Exposure time
Hydrocarbons, C11-C14, Isoalkanes, Cycloalkanes, <2% Aromates	927-285-2	LL50	>1,000 mg/l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 203	ECHA	read-across	96 h
Hydrocarbons, C11-C14, Isoalkanes, Cycloalkanes, <2% Aromates	927-285-2	LL50	>81,000 mg/l	saltwater invertebrates (Mysidopsis bahia)		ECHA	read-across	96 h
Hydrocarbons, C11-C14, Isoalkanes, Cycloalkanes, <2% Aromates	927-285-2	EL50	>1,000 mg/l	daphnia magna	OECD Guideline 202	ECHA	read-across	48 h
Hydrocarbons, C11-C14, Isoalkanes, Cycloalkanes, <2% Aromates	927-285-2	EL50	>1,000 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA	read-across	72 h
n-butyl acetate	204-658-1	LC50	18 mg/l	fathead minnow (Pimephales promelas)	OECD Guideline 203	ECHA		96 h
n-butyl acetate	204-658-1	EC50	18 mg/l	fathead minnow (Pimephales promelas)	OECD Guideline 203	ECHA		96 h
n-butyl acetate	204-658-1	EC50	44 mg/l	daphnia magna	OECD Guideline 202	ECHA		48 h
n-butyl acetate	204-658-1	EC50	246 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA	read-across	72 h

## PERMEX 050

Aquatic toxicity (acute) of components of the mixture								
Name of substance	EC No	Endpoint	Value	Species	Method	Source	Notes	Exposure time
n-butyl acetate	204-658-1	ErC50	397 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA	read-across	72 h
propan-2-ol	200-661-7	LC50	9,640 mg/l	fathead minnow (Pimephales promelas)	OECD Guideline 203	ECHA		96 h
propan-2-ol	200-661-7	LC50	>10,000 mg/l	daphnia magna	OECD Guideline 202	ECHA		24 h

### Aquatic toxicity (chronic)

May cause long-term adverse effects in the aquatic environment.

Test data are not available for the complete mixture.

### Aquatic toxicity (chronic) of components of the mixture

Aquatic toxicity (chronic) of components of the mixture								
Name of substance	EC No	Endpoint	Value	Species	Method	Source	Notes	Exposure time
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1	EL50	>1 mg/l	daphnia magna	OECD Guideline 211	ECHA		21 d
n-butyl acetate	204-658-1	EC50	34.2 mg/l	daphnia magna	OECD Guideline 211	ECHA	read-across	21 d
n-butyl acetate	204-658-1	LC50	43.5 mg/l	daphnia magna	OECD Guideline 211	ECHA	read-across	21 d
n-butyl acetate	204-658-1	NOEC	23.2 mg/l	daphnia magna	OECD Guideline 211	ECHA	read-across	21 d
n-butyl acetate	204-658-1	NOEC	105 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA	read-across	72 h

## PERMEX 050

Aquatic toxicity (chronic) of components of the mixture								
Name of substance	EC No	Endpoint	Value	Species	Method	Source	Notes	Exposure time
n-butyl acetate	204-658-1	LOEC	47.6 mg/l	daphnia magna	OECD Guideline 211	ECHA	read-across	21 d

### 12.2 Persistence and degradability

#### Degradability of components of the mixture

Degradability of components of the mixture						
Name of substance	EC No	Process	Degradation rate	Time	Method	Source
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1	oxygen depletion	31.3 %	28 d	OECD Guideline 301 F	ECHA
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1	carbon dioxide generation	20.62 %	31 d	EPA OTS 796.3100	ECHA
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	920-901-0	oxygen depletion	89.8 %	28 d	OECD Guideline 301 F	ECHA
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	920-901-0	carbon dioxide generation	20.62 %	31 d	EPA OTS 796.3100	ECHA
Hydrocarbons, C11-C14, Isoalkanes, Cycloalkanes, <2% Aromates	927-285-2	oxygen depletion	67.6 %	28 d	OECD Guideline 301 F	ECHA
n-butyl acetate	204-658-1	oxygen depletion	83 %	28 d	OECD Guideline 301 D	ECHA
propan-2-ol	200-661-7	oxygen depletion	53 %	5 d	EU method C.5	ECHA

#### Biodegradation

No data available.

# PERMEX 050

## Persistence

No data available.

## 12.3 Bioaccumulative potential

Test data are not available for the complete mixture.

### Bioaccumulative potential of components of the mixture

Bioaccumulative potential of components of the mixture			
Name of substance	EC No	BCF	Log KOW
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	918-167-1		>4
Hydrocarbons, C11-C13, Isoalkanes, < 2% aromates	920-901-0		>4
n-butyl acetate	204-658-1		2.3 (pH value: 7, 25 °C)
propan-2-ol	200-661-7		0.05 (20 °C)

## 12.4 Mobility in soil

No data available.

## 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## 12.6 Other adverse effects

Data are not available.

### Remarks

Wassergefährdungsklasse, WGK (water hazard class): 2

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packagings

Completely emptied packages can be recycled.  
Handle contaminated packages in the same way as the substance itself.

### Remarks

Please consider the relevant national or regional provisions.


# PERMEX 050

## SECTION 14: Transport information

<b>14.1</b>	<b>UN number</b>	1993
<b>14.2</b>	<b>UN proper shipping name</b>	FLAMMABLE LIQUID, N.O.S.
	<b>Technical name (hazardous ingredients)</b>	hydrocarbons, C11-C12, isoalkanes, <2% aromates, isopropanol
<b>14.3</b>	<b>Transport hazard class(es)</b>	
	<b>Class</b>	3
<b>14.4</b>	<b>Packing group</b>	III
<b>14.5</b>	<b>Environmental hazards</b>	-
<b>14.6</b>	<b>Special precautions for user</b>	-
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	-


### **14.8** Information for each of the UN Model Regulations

#### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).**


UN number	1993
Proper shipping name	UN1993, FLAMMABLE LIQUID, N.O.S., (contains: hydrocarbons, C11-C12, isoalkanes, <2% aromates, isopropanol), 3, III, (D/E)
Class	3
Classification code	F1
Packing group	III
Danger label(s)	3
	
Special provisions (SP)	274, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
Transport category (TC)	3
Tunnel restriction code (TRC)	D/E
Hazard identification No	30
Emergency Action Code	3Y

#### **International Maritime Dangerous Goods Code (IMDG)**

## PERMEX 050

UN number	1993
Proper shipping name	UN1993, FLAMMABLE LIQUID, N.O.S., (contains: hydrocarbons, C11-C12, isoalkanes, <2% aromates, isopropanol), 3, III, <60°C c.c.
Class	3
Marine pollutant	-
Packing group	III
Danger label(s)	3
	
Special provisions (SP)	223, 274, 955
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-E, <u>S-E</u>
Stowage category	A

### International Civil Aviation Organization (ICAO-IATA/DGR)

UN number	1993
Proper shipping name	UN1993, Flammable liquid, n.o.s., (contains: hydrocarbons, C11-C12, isoalkanes, <2% aromates, isopropanol), 3, III
Class	3
Packing group	III
Danger label(s)	3
	
Special provisions (SP)	A3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	10 L

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

# PERMEX 050

## Relevant provisions of the European Union (EU)

### Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)			
Name of substance	Name acc. to inventory	CAS No	Restriction
PERMEX 050	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3
n-butyl acetate	flammable / pyrophoric		R40
Hydrocarbons, C11-C12, Isoalkanes, < 2% aromates	flammable / pyrophoric		R40
propan-2-ol	flammable / pyrophoric		R40

#### Legend

- R3
- Shall not be used in:
    - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
    - tricks and jokes,
    - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
  - Articles not complying with paragraph 1 shall not be placed on the market.
  - Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
    - can be used as fuel in decorative oil lamps for supply to the general public, and,
    - present an aspiration hazard and are labelled with R65 or H304,
  - Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
  - Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
    - lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
    - grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
    - lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
  - No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
  - Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

# PERMEX 050

## Legend

- R40
1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:
    - metallic glitter intended mainly for decoration,
    - artificial snow and frost,
    - 'whoopee' cushions,
    - silly string aerosols,
    - imitation excrement,
    - horns for parties,
    - decorative flakes and foams,
    - artificial cobwebs,
    - stink bombs.
  2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:  
'For professional users only'.
  3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (2).
  4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

## List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

None of the ingredients are listed.

## Seveso Directive

2012/18/EU (Seveso III)				
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes
P5c	flammable liquids (cat. 2, 3)	5,000	50,000	51)

### Notation

51) flammable liquids, categories 2 or 3 not covered by P5a and P5b

## Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

None of the ingredients are listed.

## Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

None of the ingredients are listed.

## Water Framework Directive (WFD)

Not all ingredients are listed.



## PERMEX 050

List of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
propan-2-ol	Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment		A)	
propan-2-ol	Biocides and plant protection products		A)	

### Legend

A) Indicative list of the main pollutants

### Regulation 98/2013/EU on the marketing and use of explosives precursors

None of the ingredients are listed.

### Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

### Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
1.3	Details of the supplier of the safety data sheet: Uniter Chemie GmbH Ostring 16 D-44787 Bochum Germany  Telephone: ++49 (0) 234 - 18487 Telefax: ++49 (0) 234 - 67175 e-mail: info@uniter.com	Details of the supplier of the safety data sheet: Uniter Chemie GmbH Lötscher Weg 48 D-41334 Nettetal Germany  Telephone: ++49 (0) 2153 - 9789-0 Telefax: ++49 (0) 2153 - 9789-29 e-mail: info@uniter.com
2.2		Precautionary statements: change in the listing (table)
3.2		Hazardous ingredients: change in the listing (table)

## PERMEX 050

Section	Former entry (text/value)	Actual entry (text/value)
8.1		Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)
8.1		Relevant DNELs of components of the mixture: change in the listing (table)

### Abbreviations and acronyms

Abbreviations and acronyms	
Abbr.	Descriptions of used abbreviations
2019/1831/EU	Commission Directive establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organisms
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule

## PERMEX 050

<b>Abbreviations and acronyms</b>	
<b>Abbr.</b>	<b>Descriptions of used abbreviations</b>
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LL50	Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality
LOEC	Lowest Observed Effect Concentration
log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
SVHC	Substance of Very High Concern

# PERMEX 050

<b>Abbreviations and acronyms</b>	
<b>Abbr.</b>	<b>Descriptions of used abbreviations</b>
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

## Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

## Classification procedure

Physical and chemical properties.

Health hazards.

Environmental hazards.

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

## List of relevant phrases (code and full text as stated in chapter 2 and 3)

<b>List of relevant phrases (code and full text as stated in chapter 2 and 3)</b>	
<b>Code</b>	<b>Text</b>
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H336	May cause drowsiness or dizziness.
H413	May cause long lasting harmful effects to aquatic life.

## Responsible for the safety data sheet

C.S.B. GmbH  
Düsseldorfer Str. 113  
47809 Krefeld, Germany

Telephone: +49 (0) 2151 - 652086 - 0  
Telefax: +49 (0) 2151 - 652086 - 9  
e-Mail: [info@csb-online.de](mailto:info@csb-online.de)  
Website: [www.csb-online.de](http://www.csb-online.de)

## Disclaimer

This information is based upon the present state of our knowledge.

This SDS has been compiled and is solely intended for this product.