

according to Regulation (EC) No 1907/2006

**Linsenreinigungsspray**

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**
**1.1. Product identifier**

Linsenreinigungsspray

**1.2. Relevant identified uses of the substance or mixture and uses advised against**
**Use of the substance/mixture**

For cleaning up

**1.3. Details of the supplier of the safety data sheet**

Company name:	KERN & SOHN GmbH	
Street:	Ziegelei 1	
Place:	D-72336 Balingen-Frommern	
Telephone:	+49 (0)7433 9933 0	Telefax: +49 (0)7433 9933 149
e-mail:	info@kern-sohn.com	
Contact person:	Daniel Junger	Telephone: +49 (0)7433 9933 155
e-mail:	daniel.junger@kern-sohn.com	
Internet:	www.kern-sohn.com	

**1.4. Emergency telephone number:** GIZ-Nord, Göttingen, Germany +49 551 19240 (24h/7d)

**SECTION 2: Hazards identification**
**2.1. Classification of the substance or mixture**
**Regulation (EC) No. 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

**2.2. Label elements**
**Additional advice on labelling**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

**2.3. Other hazards**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**
**Chemical characterization**

in aqueous solution

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			1 - < 5 %
	200-661-7	603-117-00-0		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			

Full text of H and EUH statements: see section 16.

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

First aider: Pay attention to self-protection!

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If unconscious place in recovery position and seek medical advice.

When in doubt or if symptoms are observed, get medical advice.

**After inhalation**

Provide fresh air. Put victim at rest, cover with a blanket and keep warm. If breathing is irregular or stopped, administer artificial respiration. If experiencing respiratory symptoms: Get medical advice/attention.

**After contact with skin**

Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**

Observe risk of aspiration if vomiting occurs. Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person or a person with cramps. Get medical advice/attention if you feel unwell.

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

Irritating to eyes, respiratory system and skin. (slightly irritant)

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

First Aid, decontamination, treatment of symptoms.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

Full water jet

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

Vapours can form explosive mixtures with air.

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>),

Gases/vapours, toxic, corrosive.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. Full protection suit.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Do not breathe gas/fumes/vapour/spray. Use personal protection equipment. Evacuate area. Remove persons to safety.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.

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Clean contaminated articles and floor according to the environmental legislation.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Do not breathe gas/fumes/vapour/spray. Use personal protection equipment.

#### Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Vapours can form explosive mixtures with air.

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

#### Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed and in a well-ventilated place. Store in a dry place. Do not allow to enter into soil/subsoil.

#### Hints on joint storage

Do not store together with: Food and feedingstuffs, Oxidising agent, strong.

#### Further information on storage conditions

storage temperature > 5 - < 25 °C

Keep away from heat. Protect against direct sunlight.

### 7.3. Specific end use(s)

For cleaning up

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
111-76-2	2-Butoxyethanol	25	123		TWA (8 h)	WEL
		50	246		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

#### Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
111-76-2	2-Butoxyethanol	butoxyacetic acid (creatinine)	240 mmol/mol	urine	Post shift

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**DNEL/DMEL values**

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol		
Consumer DNEL, long-term	oral	systemic	26 mg/kg bw/day
Worker DNEL, long-term	dermal	systemic	888 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	319 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	500 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	systemic	89 mg/m <sup>3</sup>

**PNEC values**

CAS No	Substance	
Environmental compartment	Value	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	
Freshwater	140,9 mg/l	
Freshwater (intermittent releases)	140,9 mg/l	
Marine water	140,9 mg/l	
Freshwater sediment	552 mg/kg	
Marine sediment	552 mg/kg	
Secondary poisoning	160 mg/kg	
Micro-organisms in sewage treatment plants (STP)	2251 mg/l	
Soil	28 mg/kg	

**8.2. Exposure controls****Appropriate engineering controls**

Provide adequate ventilation as well as local exhaust at critical locations.

**Protective and hygiene measures**

Take off contaminated clothing. Protect skin by using skin protective cream. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Do not breathe gas/fumes/vapour/spray. Keep away from food, drink and animal feedingstuffs.

**Eye/face protection**

Filling and transfer: Wear eye/face protection.

**Hand protection**

Wear protective gloves.

Unsuitable material: Natural fibres (e.g. cotton), Leather articles

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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. Breakthrough times and swelling properties of the material must be taken into consideration.

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**Skin protection**

Use of protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**Environmental exposure controls**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	colourless	
Odour:	like: Alcohol	
pH-Value:		not determined

**Changes in the physical state**

Melting point:		not determined
Initial boiling point and boiling range:		approx. 100 °C
Flash point:		not applicable

**Flammability**

Solid:		not applicable
Gas:		not applicable

**Explosive properties**

The product is not: Explosive.  
Vapours can form explosive mixtures with air.

Lower explosion limits:		not applicable
Upper explosion limits:		not applicable
Ignition temperature:		not applicable

**Auto-ignition temperature**

Solid:		not applicable
Gas:		not applicable

Decomposition temperature:		not determined
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**Oxidizing properties**

Not oxidising.

Vapour pressure:		not determined
Density:		not determined
Water solubility:		partially soluble

**Solubility in other solvents**

not determined

Partition coefficient:		not determined
Viscosity / dynamic:		not determined
Viscosity / kinematic:		not determined
Vapour density:		not determined
Evaporation rate:		not determined

#### 9.2. Other information

Odour threshold: not determined

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

Reaction with: Oxidising agent, strong.

Vapours can form explosive mixtures with air.

#### 10.4. Conditions to avoid

Keep away from heat. Protect against direct sunlight.

#### 10.5. Incompatible materials

Oxidising agent, strong

#### 10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>),

Gases/vapours, toxic, corrosive.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 mg/kg	5840	Rat	Manufacturer OECD 401
	dermal	LD50 mg/kg	5027,2	Rabbit	Manufacturer OECD 402

##### Irritation and corrosivity

Based on available data, the classification criteria are not met.

Irritating to eyes, respiratory system and skin. (slightly irritant but not relevant for classification.)

##### Sensitising effects

Based on available data, the classification criteria are not met.

##### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

##### STOT-single exposure

Based on available data, the classification criteria are not met.

##### STOT-repeated exposure

Based on available data, the classification criteria are not met.

##### Aspiration hazard

Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

The product is not: Ecotoxic.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 mg/l	9640	96 h	Pimephales promelas (fathead minnow)	Manufacturer
	Acute crustacea toxicity	EC50 mg/l	9714	48 h	Daphnia magna (Big water flea)	Manufacturer

#### **12.2. Persistence and degradability**

The product has not been tested.

#### **12.3. Bioaccumulative potential**

The product has not been tested.

#### **12.4. Mobility in soil**

The product has not been tested.

#### **12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### **12.6. Other adverse effects**

No information available.

#### **Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

AOX: not relevant (DIN EN ISO 9562)

Directive 2006/11/EC on pollution caused by certain dangerous substances discharged into the aquatic environment:

Contains: none Heavy metals

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. The waste code has to be identified in agreement with the disposal company or the competent authority.

##### **Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

##### **Contaminated packaging**

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

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

##### **14.1. UN number:**

No dangerous good in sense of this transport regulation.

##### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

##### **14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

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**14.4. Packing group:** No dangerous good in sense of this transport regulation.

### Inland waterways transport (ADN)

**14.1. UN number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

### Marine transport (IMDG)

**14.1. UN number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

### 14.6. Special precautions for user

No information available.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

## SECTION 15: Regulatory information

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

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3: 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve; propan-2-ol; isopropyl alcohol; isopropanol

Entry 40: propan-2-ol; isopropyl alcohol; isopropanol

2010/75/EU (VOC): < 5 %

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

#### Additional information

To follow: Regulation (EC) No. 648/2004 (Detergents regulation).

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not relevant

Regulation (EC) No 850/2004 [POP-Regulation]: not relevant

#### National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

### 15.2. Chemical safety assessment

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

## SECTION 16: Other information



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### Abbreviations and acronyms

CLP: Classification, labelling and Packaging  
 REACH: Registration, Evaluation and Authorization of Chemicals  
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
 UN: United Nations  
 CAS: Chemical Abstracts Service  
 DNEL: Derived No Effect Level  
 DMEL: Derived Minimal Effect Level  
 PNEC: Predicted No Effect Concentration  
 ATE: Acute toxicity estimate  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%  
 LL50: Lethal loading, 50%  
 EL50: Effect loading, 50%  
 EC50: Effective Concentration 50%  
 ErC50: Effective Concentration 50%, growth rate  
 NOEC: No Observed Effect Concentration  
 BCF: Bio-concentration factor  
 PBT: persistent, bioaccumulative, toxic  
 vPvB: very persistent, very bioaccumulative  
 AOX: Adsorbable Organic Halides  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route  
 (European Agreement concerning the International Carriage of Dangerous Goods by Road )  
 RID: Regulations concerning the international carriage of dangerous goods by rail  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
 IMDG: International Maritime Code for Dangerous Goods  
 EmS: Emergency Schedules  
 MFAG: Medical First Aid Guide  
 IATA: International Air Transport Association  
 ICAO: International Civil Aviation Organization  
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
 IBC: Intermediate Bulk Container  
 SVHC: Substance of Very High Concern  
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

### Relevant H and EUH statements (number and full text)

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

### Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*