

**Safety data sheet  
 according to 1907/2006/EC**

Printing date 29.03.2016

Version Nr: 1

Revision: 29.03.2016

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

- **1.1 Product identifier**
- Trade name **Lens cleaning spray**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against** None.
- **Application of the substance / the mixture** Cleaning material
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
**SUPPLIER:**  
 KERN & Sohn GmbH  
 Ziegelei 1  
 D-72336 Balingen  
 Deutschland / Germany
- **Informing department:** Kern & Sohn GmbH; +49 (0) 7433 9933-155; daniel.junger@kern-sohn.com
- **1.4 Emergency telephone number:**  
 GIZ-Nord, Göttingen, Germany  
 Member of EPECS Network  
**EMERGENCY NUMBER:** +49 551 19240

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
 The product is not classified according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**  
 EUH210 Safety data sheet available on request.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

- **3.2 Mixtures**
- **Description:** Aqueous solution consisting of the following components with harmless additives.

· <b>Non-dangerous Components:</b>		
CAS: 7732-18-5 EINECS: 231-791-2	water	~95%
· <b>Dangerous components:</b>		
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	~4,5%
CAS: 111-76-2 EINECS: 203-905-0	2-butoxyethanol Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	~0,2%
CAS: 36445-71-3 EINECS: 253-040-8	Disodium decyl(sulphonatophenoxy)benzenesulphonate Eye Dam. 1, H318; Skin Irrit. 2, H315	~0,19%

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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

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

Personal protection for the First Aider.

Remove contaminated clothing.

If unconscious, place in recovery position and seek medical advice.

**· After inhalation**

Take affected persons into the open air and position comfortably

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

**· After skin contact**

Remove contaminated clothing.

Wash off with plenty of water.

Or better

Wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

**· After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult Oculist.

**· After swallowing**

Rinse out mouth and then drink (two glasses at the most) water.

Do not induce vomiting.

Consult doctor if feeling unwell.

Turn a vomiting person on the side if lying on the back.

If vomiting occurs, the head should be kept low.

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

A description of symptoms is not present at the moment.

**· Information for doctor** The toxicological properties of this material have not been fully investigated.**· Danger**

Slightly irritation on eyes skin and mucous membrane.

There are at present no indications to further acute dangers for the health.

Further health dangers cannot be excluded however.

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

Elemental assistance.

Decontamination.

Treat symptomatically and supportively.

**SECTION 5: Firefighting measures****· 5.1 Extinguishing media****· Suitable extinguishing agents**

The product is not flammable.

Use fire fighting measures that suit the environment.

**· For safety reasons unsuitable extinguishing agents** Water with a full water jet.**· 5.2 Special hazards arising from the substance or mixture**

Formation of toxic and corrosive gases during heating or in case of fire.

Can be released in case of surrounding fire:

Carbon monoxide and carbon dioxide.

Nitrogen oxides (NO<sub>x</sub>)

**· 5.3 Advice for firefighters****· Protective equipment:**

Wear self-contained breathing apparatus.

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*Wear full protective suit.***· Additional information***Collect contaminated fire fighting water separately. It must not enter drains.**Damp down gases/fumes/haze with water spray jet.***SECTION 6: Accidental release measures****· 6.1 Personal precautions, protective equipment and emergency procedures***Wear protective equipment. Keep unprotected persons away.**Use breathing protection against the effects of fumes/dust/aerosol.**Ensure adequate ventilation**Bring persons out of danger.***· 6.2 Environmental precautions:***Do not allow to enter sewage systems, water bodies, groundwater or soil.**Inform respective authorities in case large quantities of the product reach water, sewage system or soil.***· 6.3 Methods and material for containment and cleaning up:***Ensure adequate ventilation.**Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).**Clean up affected area.**May be recycled or disposed of in appropriate containers**Dispose of contaminated material as waste according to item 13.***· 6.4 Reference to other sections***See Section 7 for information on safe handling**See Section 8 for information on personal protection equipment.**See Section 13 for information on disposal.***SECTION 7: Handling and storage****· 7.1 Precautions for safe handling***Keep containers tightly closed.**Ensure good ventilation/exhaustion at the workplace.***· Hygiene measures:***Keep away from foodstuffs, beverages and feedingstuff.**Instantly remove any soiled and impregnated garments.**Wash hands during breaks and at the end of the work.**Do not inhale gases / fumes / aerosols.**Avoid contact with the eyes and skin.**Do not eat, drink or smoke while working.***· Information about protection against explosions and fires:***The product is not flammable**No special measures required.***· 7.2 Conditions for safe storage, including any incompatibilities****· Storage****· Requirements to be met by storerooms and containers:***Store in original container if possible.**Prevent any penetration into the ground.***· Information about storage in one common storage facility:***Store away from foodstuffs.**Do not store together with materials/products which can form dangerous chemical reactions.**See point 10: stability and reactivity.***· Further information about storage conditions:***Store in a dry place. Store in a closed container.*

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- Protect from heat and direct sunlight.
- Store container in a well ventilated position.
- **Recommended storage temperature:** >5 °C - <25 °C
- **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with critical values that require monitoring at the workplace:**  
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.  
At this time, the other constituents have no known exposure limits.

**67-63-0 propan-2-ol**

WEL (Great Britain)	Short-term value: 1250 mg/m <sup>3</sup> , 500 ppm Long-term value: 999 mg/m <sup>3</sup> , 400 ppm
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· **DNELs**

**67-63-0 propan-2-ol**

Oral	DNEL/long t.systemic	26 mg/kg bw/day (General population) (ECHA)
Dermal	DNEL/long t-systemic	888 mg/kg bw/day (Workers) (ECHA) 319 mg/kg bw/day (General population) (ECHA)
Inhalative	DNEL/long t.systemic	500 mg/m <sup>3</sup> (Workers) (ECHA) 89 mg/m <sup>3</sup> (General population) (ECHA)

· **PNECs**

**67-63-0 propan-2-ol**

Oral	PNEC - Oral	160 mg/kg/food (oral) (ECHA)
	PNEC - Sediment	552 mg/kg (Marine water) (ECHA) 552 mg/kg (Freshwater) (ECHA)
	PNEC - STP	2251 mg/l (sewage treatment plant) (ECHA)
PNEC - Aquatic		140,9 mg/l (Marine water) (ECHA)
		140,9 mg/l (Freshwater) (ECHA)
		140,9 mg/l (Intermittent releases) (ECHA)
	PNEC - Soil	28 mg/kg soil dw (soil) (ECHA)

- **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective measures:**

The usual precautionary measures should be adhered to in handling the chemicals.

· **Breathing equipment:**

If used in closed systems or well-ventilated area breathing protection is not necessary.

· **Protection of hands:**



Chemical-protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Check protective gloves prior to each use for their proper condition.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Preventive skin protection by use of skin-protecting agents is recommended.

· **Material of gloves**

No material can be recommended.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

ASK THE MANUFACTURER FOR SUITABLE MATERIAL.

· **Penetration time of glove material**

At the permeation time no data are present.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials:**

Strong gloves

Leather gloves

· **Eye protection:** Safety glasses recommended during refilling.

· **Body protection:**

Light weight protective clothing

or

Lab coat

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

**SECTION 9: Physical and chemical properties**

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

· **General Information**

· **Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	colourless
<b>Smell:</b>	Alcohol-like
<b>Odour threshold:</b>	No data available

· **pH-value:** No data available

· **Change in condition**

<b>Melting point/Melting range:</b>	No data available
<b>Boiling point/Boiling range:</b>	~100 °C

· **Flash point:** Not applicable

· **Ignition temperature:** Not applicable

· **Decomposition temperature:** No data available

· **Danger of explosion:** Product does not present an explosion hazard.

· **Critical values for explosion:**

<b>Lower:</b>	Not applicable
<b>Upper:</b>	Not applicable

· **Vapour pressure:** No data available

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- |                                                   |                                            |
|---------------------------------------------------|--------------------------------------------|
| · <b>Density</b>                                  | No data available                          |
| · <b>Vapour density</b>                           | Not determined.                            |
| · <b>Solubility in / Miscibility with Water:</b>  | Partly soluble                             |
| · <b>Partition coefficient (n-octanol/water):</b> | No data available                          |
| · <b>Viscosity:</b>                               |                                            |
| <b>dynamic:</b>                                   | No data available                          |
| <b>kinematic:</b>                                 | No data available                          |
| · <b>9.2 Other information</b>                    | No further relevant information available. |

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Conditions to be avoided:**  
No decomposition if used and stored according to specifications.  
To avoid thermal decomposition do not overheat.
- **10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Can be released in case of surrounding fire:  
Carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>)  
Nitrogen oxides (NO<sub>x</sub>)

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

**67-63-0 propan-2-ol**

Oral	LD50	5840 mg/kg (rodent - rat) (OECD 401 (ECHA))
Dermal	LD50	16,4 ml/kg (rabbit) (OECD 402 (ECHA))
Inhalative	LC50/6h	> 10000 ppm (rodent - rat) (OECD 403 (ECHA))

- **Primary irritant effect:**
- **Skin corrosion/irritation** Results from bioassays are not available (irritation possible).
- **Serious eye damage/irritation** Results from bioassays are not available (irritation possible).
- **Respiratory or skin sensitisation** Results from bioassays are not available.
- **Additional toxicological information:**  
With proper contact and use as directed the product after our experiences and the information present to us causes no effects injurious to health.

· **IARC (International Agency for Research on Cancer)**

67-63-0	propan-2-ol
111-76-2	2-butoxyethanol

· **Repeated dose toxicity**

**67-63-0 propan-2-ol**

Inhalative	NOAEC	5000 ppm (rodent - rat) (OECD 451 / ECHA)
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- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** No data available
- **Carcinogenicity** No data available
- **Reproductive toxicity** No data available
- **STOT-single exposure** No data available
- **STOT-repeated exposure** No data available
- **Aspiration hazard** No data available

**SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:**

· <b>acute:</b>	
<b>67-63-0 propan-2-ol</b>	
EC50 / 24h (static)	9714 mg/l (DAPHNIA TOXICITY: (daphnia magna)) (ECHA)
LC50 / 96h	9640 mg/l (FISH TOXICITY: (pimephales promelas)) (ECHA)
other: toxicity threshold concentration (static)	16h: 1050 mg/l (BACTERIAL TOXICITY: (pseudomonas putida)) (DIN 38412, part 8 / ECHA)

- **chronic:**

<b>67-63-0 propan-2-ol</b>	
other: toxicity threshold concentration chron.	7d: 1800 mg/l (ALGAL TOXICITY: (scenedesmus quadric.)) (ECHA)

- **Terrestrial toxicity:**

· <b>acute:</b>	
<b>67-63-0 propan-2-ol</b>	
LC50 Terrestrial acute	1d: 25,1 / 26,7 g/l in diet (Arthropods / Drosophila melanogaster) (male / female (ECHA))

- **chronic:** No data available
- **12.2 Persistence and degradability** No data available
- **12.3 Bioaccumulative potential** No data available
- **12.4 Mobility in soil** No data available
- **Additional ecological information:**
- **AOX-indication:** The product does not contribute to the AOX value of the waste water.
- **General notes:**  
Quantitative data on the ecological effect of this product are not available.  
At present there are no ecotoxicological assessments.  
Do not allow product to reach ground water, water bodies, sewage system or soil.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **European waste catalogue**

A waste code in accordance with the European Waste Catalogue (EWC) may not be assigned to this product since it admits of a classification only when the consumer uses it for some purpose. In agreement with the waste code must be determined regional waste disposal authority or company.

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

· <b>14.1 UN-Number</b> · <b>ADR, ADN, IMDG, IATA</b>	Void
· <b>14.2 UN proper shipping name</b> · <b>ADR, ADN, IMDG, IATA</b>	Void
· <b>14.3 Transport hazard class(es)</b> · <b>ADR, ADN, IMDG, IATA</b> · <b>Class</b>	Void
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	Void
· <b>14.5 Environmental hazards:</b>	Not applicable.
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	Void

**SECTION 15: Regulatory information**

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

· <b>TSCA (Toxic Substances Control Act):</b>
All ingredients are listed.

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **National regulations**
- **Other regulations, limitations and prohibitive regulations**
- **Regulation (EC) No 1005/2009 on substances that deplete the ozone layer** not regulated
- **Regulation (EC) No 850/2004 on persistent organic pollutants and amending Directive 79/117/EEC**  
not regulated
- **Substances of very high concern (SVHC) according to REACH, Article 57**  
This product contains no SVHC above the legal limit of concentration  $\geq 0,1\%$  (w / w)
- **REGULATION (EU) No 649/2012 concerning the export and import of dangerous chemicals (PIC procedure):**  
not regulated

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

These statements solely describe the safety demands of the product and base according to the best of our belief on our today's knowledge. They, however, do not represent any assurance towards properties of the product within the sense of liability, resp. guaranty regulations and thus are given without any obligation.

· **Relevant phrases***H225 Highly flammable liquid and vapour.**H302 Harmful if swallowed.**H312 Harmful in contact with skin.**H315 Causes skin irritation.**H318 Causes serious eye damage.**H319 Causes serious eye irritation.**H332 Harmful if inhaled.**H336 May cause drowsiness or dizziness.*· **Abbreviations and acronyms:***ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**DNEL: Derived No-Effect Level (REACH)**PNEC: Predicted No-Effect Concentration (REACH)**Lit.: Literatur**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Flammable liquids, Hazard Category 2**Acute Tox. 4: Acute toxicity, Hazard Category 4**Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2**Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1**Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2**STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*· **Sources***Information of distributor.**ECHA Information on Registered Substances.**<http://apps.echa.europa.eu/registered/registered-sub.aspx>*

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