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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revised on / Version: 05.04.2011 / 0020  
Replaces revision of / Version: 19.01.2011 / 0019  
Valid from: 05.04.2011  
PDF print date: 16.01.2012  
Hako Cleanol-HD

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

#### Hako Cleanol-HD

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

##### Relevant identified uses of the substance or mixture:

Cleaner for automatic floor cleaning machines

##### Uses advised against:

No information available at present.

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

Hako Werk GmbH, Hamburgerstraße 209-239, D-23843 Bad Oldesloe  
Telephone 04531 806309, Fax 04531 806338  
info@hako.com

HILCO Chemie B.V. , Postfach 105, NL-6674 ZJ HERVELD  
Telefon: 0031 488473330, Telefax.: 0031 488473331

E-mail address of the competent person: info@chemical-check.de, k.schnurbusch@chemical-check.de

#### 1.4 Emergency telephone

##### Advisory office in case of poisoning:

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##### Telephone number of the company in case of emergencies:

Tel.: 0031 488473330

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### 2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)

Not determined

##### 2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments).

C, Corrosive, R35

#### 2.2 Label elements

##### 2.2.1 Labeling according to Regulation (EC) 1272/2008 (CLP)

Not determined

##### 2.2.2 Labeling according to Directives 67/548/EEC and 1999/45/EC (including amendments).

Symbols: C

Indications of danger:

Corrosive

R-phrases:

35 Causes severe burns.

S-phrases:

(1/2) Keep locked up and out of the reach of children.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

35 This material and its container must be disposed of in a safe way.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.



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45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Additions:

Potassium hydroxide

### 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

High pH-value can be harmful to water.

## REGULATION (EC) No 648/2004

less than 5 %  
 aliphatic hydrocarbons  
 non-ionic surfactants  
 phosphates  
 phosphonates

## SECTION 3: Composition/information on ingredients

### 3.1 Substance

n.a.

### 3.2 Mixture

sodium cumenesulfonate	
Registration number (ECHA)	--
Index	---
EINECS, ELINCS	248-983-7
CAS	CAS 28348-53-0
content %	1-<20
Symbol	Xi
R-phrases	36
Classification categories / Indications of danger	Irritant
Hazard class/Hazard category	<b>Hazard statement</b>
Eye Irrit./2	H319

Potassium hydroxide	
Registration number (ECHA)	--
Index	019-002-00-8
EINECS, ELINCS	215-181-3
CAS	CAS 1310-58-3
content %	5-10
Symbol	Xn/C
R-phrases	22-35
Classification categories / Indications of danger	Corrosive, Harmful
Hazard class/Hazard category	<b>Hazard statement</b>
Skin Corr./1A	H314
Acute Tox./4	H302
Met. Corr./1	H290

2-Butoxyethanol	
Registration number (ECHA)	Substance for which an EU exposure limit value applies.
Index	--
EINECS, ELINCS	603-014-00-0
CAS	203-905-0
content %	CAS 111-76-2
Symbol	1-10
R-phrases	Xn/Xi
Classification categories / Indications of danger	20/21/22-36/38
Hazard class/Hazard category	Harmful, Irritant
	<b>Hazard statement</b>

Acute Tox./4	H302
Eye Irrit./2	H319
Skin Irrit./2	H315
Acute Tox./3	H311
Acute Tox./3	H331
Acute Tox./4	H312

<b>Propan-2-ol</b>	
<b>Registration number (ECHA)</b>	--
<b>Index</b>	603-117-00-0
<b>EINECS, ELINCS</b>	200-661-7
<b>CAS</b>	CAS 67-63-0
<b>content %</b>	1-5
<b>Symbol</b>	F/Xi
<b>R-phrases</b>	11-36-67
<b>Classification categories / Indications of danger</b>	Highly flammable, Irritant
<b>Hazard class/Hazard category</b>	<b>Hazard statement</b>
Flam. Liq./2	H225
Eye Irrit./2	H319
STOT SE/3	H336

<b>Fatty alcohol alkoxylates</b>	
<b>Registration number (ECHA)</b>	--
<b>Index</b>	---
<b>EINECS, ELINCS</b>	-
<b>CAS</b>	CAS n.v.
<b>content %</b>	0,1-<1
<b>Symbol</b>	Xi/N
<b>R-phrases</b>	38-50
<b>Classification categories / Indications of danger</b>	Dangerous for the environment, Irritant
<b>Hazard class/Hazard category</b>	<b>Hazard statement</b>
Skin Irrit./2	H315
Aquatic Acute/1	H400

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

#### Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately and call a doctor. Have Data Sheet available.

Cauterizations not treated lead to wounds difficult to heal.

#### Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

Protect uninjured eye.

#### Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

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

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

The following may occur:

Corrosive burns on skin as well as mucous membrane possible.

Risk of serious damage to eyes.

Corneal damage.

Danger of blindness

Ingestion:

Pain in the mouth and throat

Gastric perforation

Oesophageal perforation

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

n.c.

### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

Adapt to the nature and extent of fire.

Water jet spray / alcohol resistant foam / CO<sub>2</sub> / dry extinguisher

##### **Unsuitable extinguishing media**

n.c.

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

In case of fire the following can develop:

Oxides of carbon

Oxides of phosphorus

Oxides of sulphur

Oxides of nitrogen

Toxic pyrolysis products.

#### **5.3 Advice for firefighters**

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

Protective respirator with independent air supply.

Alkali-resistant protection clothing.

Full protection, if necessary

Dispose of contaminated extinction water according to official regulations.

### **SECTION 6: Accidental release measures**

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

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping

#### **6.2 Environmental precautions**

If leakage occurs, dam up.

Prevent surface and ground-water infiltration, as well as ground penetration.

Prevent from entering drainage system.

If accidental entry into drainage system occurs, inform responsible authorities.

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

Soak up with absorbent material (e.g. universal binding agent) and dispose of according to Section 13.

Diluting with water is possible.

Neutralising is possible (only from a specialist).

#### **6.4 Reference to other sections**

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

### **SECTION 7: Handling and storage**

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

#### **7.1 Precautions for safe handling**

##### **7.1.1 General recommendations**

Ensure good ventilation.

Avoid contact with eyes or skin.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

##### **7.1.2 Notes on general hygiene measures at the workplace**

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

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## 7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.  
 Not to be stored in gangways or stair wells.  
 Store product closed and only in original packing.  
 Do not use alkali sensitive materials.  
 Alkali-resistant floor necessary.  
 Store separately from acids.  
 Store at room temperature.

## 7.3 Specific end use(s)

No information available at present.

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

Chemical Name	Potassium hydroxide	Content %:5-10
WEL-TWA: ---	WEL-STEL: 2 mg/m3	---
BMGV: ---	Other information: ---	
Chemical Name	2-Butoxyethanol	Content %:1-10
WEL-TWA: 25 ppm (123 mg/m3) (WEL), 20 ppm (98 mg/m3) (EC)	WEL-STEL: 50 ppm (246 mg/m3) (WEL, EC)	---
BMGV: 240 mmol butoxyacetic acid/mol creatinine in urine, post shift (BMGV)	Other information: Sk (WEL)	
Chemical Name	Propan-2-ol	Content %:1-5
WEL-TWA: 400 ppm (999 mg/m3)	WEL-STEL: 500 ppm (1250 mg/m3)	---
BMGV: ---	Other information: ---	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

\*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

2-Butoxyethanol						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - dermal	Short term	DNEL	89	mg/kg	
Workers / employees	Human - inhalation	Short term	DNEL	663	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	246	mg/m3	
Workers / employees	Human - dermal	Long term	DNEL	75	mg/kg	
Workers / employees	Human - inhalation	Long term	DNEL	89	mg/m3	
Consumer	Human - dermal	Short term	DNEL	44,5	mg/kg	
Consumer	Human - inhalation	Short term	DNEL	426	mg/m3	
Consumer	Human - oral	Short term	DNEL	13,4	mg/kg	
Consumer	Human - inhalation	Short term, local effects	DNEL	123	mg/m3	
Consumer	Human - dermal	Long term	DNEL	38	mg/kg	
Consumer	Human - inhalation	Long term	DNEL	49	mg/m3	
Consumer	Human - oral	Long term	DNEL	3,2	mg/kg	
	Environment - freshwater		PNEC	8,8	mg/l	
	Environment - marine		PNEC	8,8	mg/l	
	Environment - sediment, freshwater		PNEC	8,14	mg/kg	
	Environment - soil		PNEC	2,8	mg/kg	

## Propan-2-ol

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - dermal	Long term	DNEL	888	mg/kg	(1 d)
Workers / employees	Human - inhalation	Long term	DNEL	500	mg/m3	
Consumer	Human - dermal	Long term	DNEL	319	mg/kg	(1 d)
Consumer	Human - inhalation	Long term	DNEL	89	mg/m3	
Consumer	Human - oral	Long term	DNEL	26	mg/kg	(1 d)
	Environment - freshwater		PNEC	140,9	mg/l	
	Environment - marine		PNEC	140,9	mg/l	
	Environment - sediment, freshwater		PNEC	552	mg/kg	
	Environment - sediment, marine		PNEC	552	mg/kg	
	Environment - soil		PNEC	28	mg/kg	

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.  
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.  
 Applies only if maximum permissible exposure values are listed here.

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

If applicable

Face protection (EN 166)

Skin protection - Hand protection:

Use alkali resistant protective gloves (EN 374).

If applicable

Rubber gloves (EN 374).

Safety gloves made of butyl (EN 374)

Protective Neopren gloves (EN 374).

Protective nitrile gloves (EN 374)

Protective hand cream recommended.

Skin protection - Other:

Alkali-resistant protection clothing (EN 13034)

Respiratory protection:

Normally not necessary.

If OES or MEL is exceeded.

Gas mask filter A (EN 14387), code colour brown

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

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### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Light green
Colour:	Clear
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	13,5
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	>95 °C
Flash point:	>100 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	1,12 g/ml
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Mixable
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not determined
Oxidising properties:	Not determined

### 9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

See also Subsection 10.4 to 10.6.

The product has not been tested.

### 10.2 Chemical stability

See also Subsection 10.4 to 10.6.

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

See also Subsection 10.4 to 10.6.

No decomposition if used as intended.

### 10.4 Conditions to avoid

See also section 7.

### 10.5 Incompatible materials

See also section 7.

Contact with strong acids leads to strong exothermic reaction.

Avoid contact with certain metals e.g. aluminium (development of hydrogen gas possible).

Avoid contact with alkali sensitive materials.

### 10.6 Hazardous decomposition products

See also Subsection 10.4 to 10.6.

See also section 5.2

No decomposition when used as directed.

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**SECTION 11: Toxicological information**

<b>Hako Cleanol-HD</b>						
<b>Toxicity/effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Respiratory tract irritation:						n.d.a.
Repeated dose toxicity:						n.d.a.
Symptoms:						n.d.a.
Other toxicity data:						Classification according to calculation procedure.

<b>sodium cumenesulfonate</b>						
<b>Toxicity/effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant
Germ cell mutagenicity (in vitro):					OECD 471 (Bacterial Reverse Mutation Test)	Negative

<b>Potassium hydroxide</b>						
<b>Toxicity/effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	LD50	333-388	mg/kg	Rat	OECD 425 (Acute Oral Toxicity - Up-and-Down Procedure)	
Respiratory or skin sensitisation:						Not sensitizing
Symptoms:						ataxia, respiratory distress, vomiting, annoyance, blisters, cornea opacity, coughing, cramps, circulatory collapse, pain in the mouth and throat, shock



Persistence and degradability:							The surfactant(s) contained in this mixture complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents., Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
Bioaccumulative potential:							n.d.a.
Mobility in soil:							n.d.a.
Results of PBT and vPvB assessment							n.d.a.
Other adverse effects:							n.d.a.
Other ecotoxicological data:							According to the recipe, contains no AOX.

<b>sodium cumenesulfonate</b>							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>100	mg/l	(Cyprinus caprio)	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	>100	mg/l	(Daphnia magna)	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	EC50	72h	>100	mg/l	(Desmodesmus subspicatus)	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		6d	>60	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable

<b>Potassium hydroxide</b>							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	80	mg/l	(Gambusia affinis)		
Results of PBT and vPvB assessment							n.a.
Toxicity to bacteria:	EC50	15min	22	mg/l	(Photobacterium phosphoreum)		

<b>2-Butoxyethanol</b>							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	1490	mg/l	(Lepomis macrochirus)		
Toxicity to fish:	LC50	96h	1474	mg/l	(Oncorhynchus mykiss)	OECD 203 (Fish, Acute Toxicity Test)	

Toxicity to daphnia:	EC50	48h	1550	mg/l	(Daphnia magna)	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	EC0	7d	900	mg/l	(Scenedesmus quadricauda)		
Persistence and degradability:		28d	100	%		Zahn-Wellens-Test	
Persistence and degradability:		28d	95	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	
Persistence and degradability:		28d	>99	%		OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)	
Bioaccumulative potential:	Log Pow		0,83				Negative
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC0	16h	>700	mg/l	(Pseudomonas putida)	DIN 38412 T.8	
Water solubility:							Mixable

<b>Propan-2-ol</b>							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	9640	mg/l	(Pimephales promelas)		
Toxicity to daphnia:	EC50	48h	>100	mg/l	(Daphnia magna)		References
Toxicity to daphnia:	LC50	48h	13.299	mg/l	(Daphnia magna)		References
Toxicity to algae:	EC50	72h	>1000	mg/l	(Scenedesmus subspicatus)		
Persistence and degradability:		21d	95	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	
Bioaccumulative potential:	Log Pow		0,05			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	
Toxicity to bacteria:	EC10	18h	5175	mg/l	(Pseudomonas putida)	DIN 38412 T.8	
Water solubility:							

<b>Fatty alcohol alkoxylates</b>							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	0,1-<1	mg/l			Analogous conclusion
Persistence and degradability:		28d	>60	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	

**SECTION 13: Disposal considerations**

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### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.  
 Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC)  
 20 01 29 detergents containing dangerous substances

Recommendation:

Pay attention to local and national official regulations  
 Neutralisation possible by an expert  
 E.g. suitable incineration plant.  
 E.g. dispose at suitable refuse site.

#### For contaminated packing material


Pay attention to local and national official regulations  
 Empty container completely.  
 Uncontaminated packaging can be recycled.  
 Dispose of packaging that cannot be cleaned in the same manner as the substance.

## SECTION 14: Transport information


### General statements

UN number: 1760


#### Transport by road/by rail (ADR/RID)

UN proper shipping name:   
 UN 1760 CORROSIVE LIQUID, N.O.S. (POTASSIUM HYDROXIDE, NITRILOTRIMETHYLENETRIS(PHOSPHONIC ACID))  
 Transport hazard class(es): 8  
 Packing group: II  
 Classification code: C9  
 LQ (ADR 2011): 1 L  
 LQ (ADR 2009): 22  
 Environmental hazards: Not applicable  
 Tunnel restriction code: E

#### Transport by sea (IMDG-code)

UN proper shipping name:   
 CORROSIVE LIQUID, N.O.S. (POTASSIUM HYDROXIDE, NITRILOTRIMETHYLENETRIS(PHOSPHONIC ACID))  
 Transport hazard class(es): 8  
 Packing group: II  
 EmS: F-A, S-B  
 Marine Pollutant: n.a  
 Environmental hazards: Not applicable

#### Transport by air (IATA)

UN proper shipping name:   
 Corrosive liquid, n.o.s. (POTASSIUM HYDROXIDE, NITRILOTRIMETHYLENETRIS(PHOSPHONIC ACID))  
 Transport hazard class(es): 8  
 Packing group: II  
 Environmental hazards: Not applicable

### Special precautions for user

Persons employed in transporting dangerous goods must be trained.  
 All persons involved in transporting must observe safety regulations.  
 Precautions must be taken to prevent damage.

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

Freighted as packaged goods rather than in bulk, therefore not applicable.  
 Minimum amount regulations have not been taken into account.  
 Danger code and packing code on request.

## SECTION 15: Regulatory information

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

For classification and labelling see Section 2.

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Observe restrictions: Yes  
 Comply with trade association/occupational health regulations.  
 Observe youth employment law (German regulation).  
 Regulation (EC) No 1907/2006, Annex XVII  
 VOC (1999/13/EC): ~ 9,5% w/w

## 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

## SECTION 16: Other information

These details refer to the product as it is delivered.

Revised sections: 3, 8, 11, 12

The following statements are the indicated R-phrases / H-phrases and classification codes (GHS/CLP) for the ingredients (listed in Section 3).

35 Causes severe burns.  
 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
 36 Irritating to eyes.  
 22 Harmful if swallowed.  
 36/38 Irritating to eyes and skin.  
 11 Highly flammable.  
 50 Very toxic to aquatic organisms.  
 67 Vapours may cause drowsiness and dizziness.  
 38 Irritating to skin.  
 H314 Causes severe skin burns and eye damage.  
 H225 Highly flammable liquid and vapour.  
 H290 May be corrosive to metals.  
 H302 Harmful if swallowed.  
 H311 Toxic in contact with skin.  
 H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H336 May cause drowsiness or dizziness.  
 H400 Very toxic to aquatic life.

Eye Irrit.-Eye irritation  
 Skin Corr.-Skin corrosion  
 Acute Tox.-Acute toxicity - oral  
 Met. Corr.-Substance or mixture corrosive to metals  
 Skin Irrit.-Skin irritation  
 Acute Tox.-Acute toxicity - dermal  
 Acute Tox.-Acute toxicity - inhalation  
 Flam. Liq.-Flammable liquid  
 STOT SE-Specific target organ toxicity - single exposure - narcotic effects  
 Aquatic Acute-Hazardous to the aquatic environment - acute

## Any abbreviations and acronyms used in this document:

AC Article Categories  
 acc., acc. to according, according to  
 ACGIH American Conference of Governmental Industrial Hygienists  
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 AOEL Acceptable Operator Exposure Level  
 AOX Adsorbable organic halogen compounds  
 approx. approximately  
 Art., Art. no. Article number  
 ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)  
 BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)  
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)  
 BCF Bioconcentration factor  
 BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)

BHT Butylhydroxytoluol (= 2,6-Di-*t*-butyl-4-methyl-phenol)

BMGV Biological monitoring guidance value (EH40, UK)

BOD Biochemical oxygen demand

BSEF Bromine Science and Environmental Forum

bw body weight

CAS Chemical Abstracts Service

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques

CIPAC Collaborative International Pesticides Analytical Council

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

COD Chemical oxygen demand

CTFA Cosmetic, Toiletry, and Fragrance Association

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

DT50 Dwell Time - 50% reduction of start concentration

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European Community

ECHA European Chemicals Agency

EEA European Economic Area

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

ERC Environmental Release Categories

ES Exposure scenario

etc. et cetera

EU European Union

EWC European Waste Catalogue

Fax. Fax number

gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

HET-CAM Hen's Egg Test - Chorionallantoic Membrane

IARC International Agency for Research on Cancer

IATA International Air Transport Association

IBC Intermediate Bulk Container

IBC (Code) International Bulk Chemical (Code)

IC Inhibitory concentration

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform Chemical Information Database

LC lethal concentration

LC50 lethal concentration 50 percent kill

LCLo lowest published lethal concentration

LD Lethal Dose of a chemical

LD50 Lethal Dose, 50% kill

LDLo Lethal Dose Low

LMBG Lebensmittel- und Bedarfsgegenstandesgesetz (= Foodstuffs and Commodities Law)

LOAEL Lowest Observed Adverse Effect Level

LOEC Lowest Observed Effect Concentration

LOEL Lowest Observed Effect Level

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicable

n.av. not available

n.c. not checked

n.d.a. no data available

NIOSH National Institute of Occupational Safety and Health (United States of America)

NOAEC No Observed Adverse Effective Concentration

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NOAEL No Observed Adverse Effect Level  
NOEC No Observed Effect Concentration  
NOEL No Observed Effect Level  
ODP Ozone Depletion Potential  
OECD Organisation for Economic Co-operation and Development  
org. organic  
PAH polycyclic aromatic hydrocarbon  
PBT persistent, bioaccumulative and toxic  
PC Chemical product category  
PE Polyethylene  
PNEC Predicted No Effect Concentration  
POCP Photochemical ozone creation potential  
ppm parts per million  
PROC Process category  
PTFE Polytetrafluorethylene  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)  
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)  
SADT Self-Accelerating Decomposition Temperature  
SAR Structure Activity Relationship  
SU Sector of use  
SVHC Substances of Very High Concern  
Tel. Telephone  
ThOD Theoretical oxygen demand  
TOC Total organic carbon  
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)  
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))  
VOC Volatile organic compounds  
vPvB very persistent and very bioaccumulative  
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).  
WHO World Health Organization  
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

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