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Safety data sheet according to 1907/2006/EC, Article 31

Printing date 25.04.2023 Version 13.0 (replaces version 12.2)

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SECTION 1: undertaking	Identification of the substance/mixture and	l of the company/
· 1.1 Product id	lentifier	
· Trade name: <u>l</u>	<u>Uniroll-D Teil 1</u>	
· Article numbe · UFI: EM00-Q0		
	dentified uses of the substance or mixture and vertice and vertice of the substance or mixture and vertice of the substance o	uses advised against
Photochemical Developer for >		
Manufacturer/ Calbe Chemie Stadtfeld 31 D-39240 Calbe Tel.: +49 (0)39 Fax: +49 (0)39	GmbH 291 425-0 9291 425-25 albe-chemie.de	
	291 42515 be-chemie.de y telephone number: 00-24112112 (CAL)	
SECTION 2:	Hazards identification	
	tion of the substance or mixture according to Regulation (EC) No 1272/2008	
GHS08	8 health hazard	
Muta. 2 Carc. 2	H341 Suspected of causing genetic defects. H351 Suspected of causing cancer.	
GHS0	5 corrosion	
Eye Dam. 1	H318 Causes serious eye damage.	(Contd. on page 2)

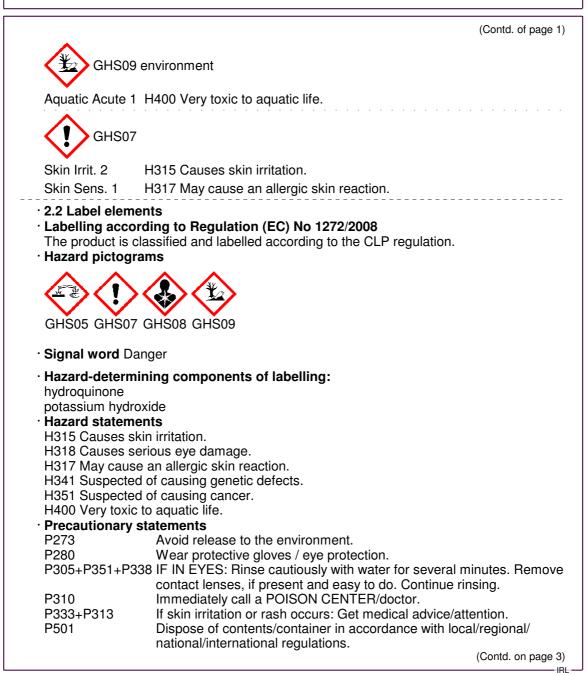


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- · 2.3 Other hazards
- $^{\rm \cdot}$ Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

• **Description:** Mixture of the substances listed below with harmless additions.

· Dangerous compor		F 100'
CAS: 123-31-9 EINECS: 204-617-8	hydroquinone Muta. 2, H341; Carc. 2, H351 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Acute Tox. 4, H302; Skin Sens. 1, H317	5 - 10%
CAS: 111-46-6 EINECS: 203-872-2	2,2'-oxybisethanol STOT RE 2, H373 Acute Tox. 4, H302	≥ 5 - < 10%
CAS: 584-08-7 EINECS: 209-529-3	potassium carbonate Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	2 - 5%
CAS: 10043-35-3 EINECS: 233-139-2	boric acid Repr. 1B, H360FD	2 - 5%
CAS: 1310-58-3 EINECS: 215-181-3	potassium hydroxide Met. Corr. 1, H290; Skin Corr. 1A, H314 Acute Tox. 4, H302 Specific concentration limits: Skin Corr. 1A; H314: $C \ge 5 \%$ Skin Corr. 1B; H314: $2 \% \le C < 5 \%$ Skin Irrit. 2; H315: $0.5 \% \le C < 2 \%$ Eye Irrit. 2; H319: $0.5 \% \le C < 2 \%$	≥ 0.5 - < 2%
SVHC		
10043-35-3 boric ac	hid	

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SECTION 4: First aid measures

- 4.1 Description of first aid measures General information Personal protection for the First Aider. Instantly remove any clothing soiled by the product. · After inhalation Supply fresh air. · After skin contact Instantly wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor. · After eve contact Rinse opened eye for several minutes under running water (at least 15 minutes). Remove contact lenses, if present and easy to do. Protect uninjured eye. Call a doctor immediately. · After swallowing Rinse out mouth and then drink plenty of water. Do not induce vomiting; instantly call for medical help.
- 4.2 Most important symptoms and effects, both acute and delayed No known symptoms to date.
- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

• Suitable extinguishing agents CO2, extinguishing powder or water jet. Fight larger fires with water spray jet or alcoholresistant foam. 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** Can be released in case of fire Sulphur oxides (SOx) Carbon monoxide
- · 5.3 Advice for firefighters
- **Protective equipment:** Do not inhale explosion gases or combustion gases. At formation of toxic gases:

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Put on breathing apparatus.

· Additional information The product is not flammable

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- 6.2 Environmental precautions: Do not allow to enter drainage system, surface or ground water.
- 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose of contaminated material as waste according to item 13.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

• 6.4 Reference to other sections 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 Do not handle until all safety precautions have been read and understood.
 Information about protection against explosions and fires: No special measures required. The product is not flammable
 7.2 Conditions for safe storage, including any incompatibilities
 Storage
 Requirements to be met by storerooms and containers: Store only in unopened original containers. Keep container tightly closed in a cool, well-ventilated place.
 Information about storage in one common storage facility: Keep away from foodstuffs, beverages and food. Do not store together with acids. Store away from oxidising agents.
- Further information about storage conditions: Protect from heat and direct sunlight. Store in a cool place.
- · Recommended storage temperature: 5-25 ℃
- · Storage class 12

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• 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

123-31-9 hydroquinone

OEL (Ireland) Long-term value: 0.5 mg/m³ Sens

111-46-6 2,2'-oxybisethanol

OEL (Ireland) Long-term value: 100 mg/m³, 23 ppm

10043-35-3 boric acid

OEL (Ireland) Long-term value: 2 mg/m³ Repr. 1B

1310-58-3 potassium hydroxide OEL (Ireland) | Short-term value: 2 mg/m³

· Additional information:

The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

- Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures

The usual precautionary measures should be adhered to general rules for handling chemicals.

Keep away from foodstuffs, beverages and food. Take off immediately all contaminated clothing.

Wash contaminated clothing before reuse.

Wash hands during breaks and at the end of the work.

Do not eat, drink or smoke while working.

Avoid contact with the eyes and skin.

• Breathing equipment: Not required.

· Hand protection

Protective gloves.

The protective gloves to be used must comply with the specifications of the (EU) 2016/425 and the resultant standard EN 374.

This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

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Only una chamia	al protoctivo alovoo with	CE loballing of astagary l	(Contd. of page
		n CE-labelling of category I leration of the penetration	
diffusion and the			lines, rales or
· Material of glove			
Thickness	Breakthrough tim	Δ	
THORICOS	(mm)	(min)	
Nitril rubber	0,38	> 480	
Neoprene	0,65	> 240	
Butyl rubber	0,36	> 480	
Avoid natural rub			
		nade of the following mat	terials are suitable:
Synthetic gloves		-	
Value for permea	ation: Level \geq 3 (60 min))	
· Eve/face protect	tion Tightly sealed safe	ty alasses	
 Body protection 	: Protective work clothi	ng.	
	nysical and chemica		
· 9.1 Information	on basic physical and		
· 9.1 Information · General Informa	on basic physical and	chemical properties	
· 9.1 Information · General Informa · Physical state	on basic physical and	chemical properties	
· 9.1 Information · General Informa	on basic physical and	chemical properties	
 9.1 Information General Informa Physical state Colour: 	on basic physical and	chemical properties Fluid Light yellow Clear	
· 9.1 Information · General Informa · Physical state	on basic physical and ition	chemical properties Fluid Light yellow Clear Not characteristic	
 9.1 Information General Informa Physical state Colour: Odour: Odour threshold 	on basic physical and ition	chemical properties Fluid Light yellow Clear Not characteristic Not determined.	
 9.1 Information General Informa Physical state Colour: Odour: Odour threshold Melting point/free 	on basic physical and ation d: eezing point:	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃	
 9.1 Information General Informa Physical state Colour: Odour: Odour threshold Melting point/free Boiling point or 	on basic physical and ition	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃	
 9.1 Information General Informa Physical state Colour: Odour: Odour threshold Melting point/free Boiling point or boiling range 	on basic physical and ation d: eezing point:	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃ nd > 100 ℃	
 9.1 Information General Informa Physical state Colour: Odour: Odour threshold Melting point/free Boiling point or boiling range Flammability 	on basic physical and ition d: eezing point: initial boiling point ar	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃	
 9.1 Information General Informa Physical state Colour: Odour: Odour threshold Melting point/free Boiling point or boiling range 	on basic physical and ition d: eezing point: initial boiling point ar	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃ nd > 100 ℃	
 9.1 Information General Informa Physical state Colour: Odour: Odour threshold Melting point/free Boiling range Flammability Lower and upped 	on basic physical and ition d: eezing point: initial boiling point ar	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃ hd > 100 ℃ Not applicable.	
 9.1 Information General Informa Physical state Colour: Odour: Odour threshold Melting point/free Boiling range Flammability Lower and uppee Upper: 	on basic physical and ition d: eezing point: initial boiling point ar	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃ > 100 ℃ Not applicable. Not determined. Not determined.	
 9.1 Information General Informa Physical state Colour: Odour: Odour threshold Melting point/free Boiling range Flammability Lower and uppe Lower: 	on basic physical and ation d: eezing point: initial boiling point ar er explosion limit	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃ > 100 ℃ Not applicable. Not determined.	
 9.1 Information General Informa Physical state Colour: Odour: Odour threshold Melting point/free Boiling range Flammability Lower and uppe Upper: Flash point: 	on basic physical and ation d: eezing point: initial boiling point ar er explosion limit	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃ > 100 ℃ Not applicable. Not determined. Not determined. Not determined. Not applicable	
 9.1 Information General Information Physical state Colour: Odour: Odour threshold Melting point/free Boiling range Flammability Lower and uppee Lower: Upper: Flash point: Decomposition 	on basic physical and ation d: eezing point: initial boiling point ar er explosion limit	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃ hd > 100 ℃ Not applicable. Not determined. Not determined. Not determined. Not applicable Not determined.	
 9.1 Information General Information Physical state Colour: Odour threshold Melting point/free Boiling point or boiling range Flammability Lower and uppee Lower: Upper: Flash point: Decomposition pH at 25 °C 	on basic physical and ation d: eezing point: initial boiling point ar er explosion limit temperature:	Fluid Light yellow Clear Not characteristic Not determined. < 5 ℃ hd > 100 ℃ Not applicable. Not determined. Not determined. Not determined. Not applicable Not determined.	
 9.1 Information General Information Physical state Colour: Odour threshold Melting point/free Boiling point or boiling range Flammability Lower and upper: Upper: Flash point: Decomposition pH at 25 °C Viscosity: 	on basic physical and ation d: eezing point: initial boiling point ar er explosion limit temperature:	chemical properties Fluid Light yellow Clear Not characteristic Not determined. $< 5 ^{\circ}C$ hd > 100 $^{\circ}C$ Not applicable. Not determined. Not determined. Not determined. Not applicable Not determined. Not determined. Not determined. Not determined. Not determined. Not determined. Not determined. 10.9	



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		(Contd. of page
· Solubility		
· Water:	miscible	
· Partition coefficient n-octanol/water (log	l	
value)	Not determined.	
· Vapour pressure at 20 °C:	23 hPa	
 Density and/or relative density 		
· Density at 20 °C	1.291 g/cm ³	
· Relative density	Not determined.	
· Vapour density	Not determined.	
· 9.2 Other information		
· Appearance:		
· Form:	Fluid	
· Important information on protection of		
health and environment, and on safety.		
· Self-inflammability:	Product is not selfigniting.	
· Explosive properties:	Product is not explosive.	
· Solvent content:	·	
· Organic solvents:	5.2 %	
· Water:	~ 60 %	
 Change in condition 		
· Evaporation rate	Not determined.	
· Information with regard to physical		
hazard classes		
· Explosives	Void	
· Flammable gases	Void	
· Aerosols	Void	
· Oxidising gases	Void	
· Gases under pressure	Void	
· Flammable liquids	Void	
· Flammable solids	Void	
· Self-reactive substances and mixtures	Void	
· Pyrophoric liquids	Void	
· Pyrophoric solids	Void	
· Self-heating substances and mixtures	Void	
· Substances and mixtures, which emit		
flammable gases in contact with water	Void	
· Oxidising liquids	Void	
· Oxidising solids	Void	
· Organic peroxides	Void	
· Corrosive to metals	Void	
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· Desensitised explosives

Void

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SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong acids
- Reacts with acids releasing sulphur dioxide
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products:
- No dangerous decomposition products known

SECTION 11: Toxicological information

• 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 • Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimates)

\		
Oral	LD50	4,325 mg/kg (rat)
		> 394 mg/kg
Inhalative	LC50/4 h	> 25.6 mg/l

- · Skin corrosion/irritation Causes skin irritation.
- · Serious eye damage/irritation Causes serious eye damage.
- · Respiratory or skin sensitisation May cause an allergic skin reaction.
- · Germ cell mutagenicity Suspected of causing genetic defects.
- · Carcinogenicity Suspected of causing cancer.
- Reproductive toxicity 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.

Additional toxicological information:

Dangerous for the environment.

This statement was deduced from the properties of the single components.

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· 11.2 Information on other hazards

· Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity: No further relevant information available.

• 12.2 Persistence and degradability Not determined

· Behaviour in environmental systems: Not determined

- · 12.3 Bioaccumulative potential Not determined
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- 12.6 Endocrine disrupting properties
- The product does not contain substances with endocrine disrupting properties.
- 12.7 Other adverse effects

• Ecotoxical effects: No further relevant information available.

- · Remark: Very toxic for fish
- · Behaviour in sewage processing plants: Not determined
- · Additional ecological information:
- · General notes:

This statement was deduced from the properties of the single components. Water hazard class 3 (German Regulation) (Self-assessment): highly water-

endangering.

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Danger to drinking water if even small quantities leak into soil.

At present there are no ecotoxicological assessments.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Very toxic for aquatic organisms

The product does not contain organically bounded halogens (AOX-free).

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SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Must be specially treated under adherence to official regulations.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

 European 	waste catalogue
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 08*	discarded organic chemicals consisting of or containing hazardous substances
HP4	Irritant - skin irritation and eye damage
HP7	Carcinogenic
HP10	Toxic for reproduction
HP11	Mutagenic
HP14	Ecotoxic

· Uncleaned packagings:

· Recommendation:

Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

EAK-No. 15 01 10

Non contaminated packagings can be used for recycling.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

· Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport information • 14.1 UN number or ID number • ADR/RID, IMDG, IATA UN3082 • 14.2 UN proper shipping name • ADR/RID, IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hydroquinone) (Contd. on page 12)



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·IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hydroquinone), MARINE POLLUTANT
· 14.3 Transport hazard class(es)	
· ADR/RID, IMDG, IATA	
· Class	9 Miscellaneous dangerous substances and
· Label	articles. 9
· 14.4 Packing group	
· ADR/RID, IMDG, IATA	
 14.5 Environmental hazards: Marine pollutant: 	Yes Symbol (fish and tree)
 Special marking (ADR/RID): Special marking (IATA): 	Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
· Kemler Number:	90
 EMS Number: Stowage Category 	F-A,S-F A
14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
Transport/Additional information	These substances when transported in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general. See the following notes.
· ADR/RID	Goods are not subject to the provisions in
 Limited quantities (LQ) Excepted quantities (EQ) 	accordance with the special provision 375 ADR. 5L Code: E1 Maximum net quantity per inner packaging: 30 ml
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· · Transport category · Tunnel restriction code	Maximum net quantity per outer packaging: 1000 ml 3 E
 IMDG Limited quantities (LQ) Excepted quantities (EQ) 	Goods are not subject to the provisions in accordance with 2.10.2.7 IMDG-Code. 5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
·IATA	Goods are not subject to the provisions in accordance with the special provision A197 IATA-DGR.
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HYDROQUINONE), 9, III

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Labelling according to Regulation (EC) No 1272/2008
- The product is classified and labelled according to the CLP regulation.
- · Hazard pictograms



- · Signal word Danger
- Hazard-determining components of labelling: hydroquinone potassium hydroxide

· Hazard statements

- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H317 May cause an allergic skin reaction.
- H341 Suspected of causing genetic defects.

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– IRL -

LIDE1 Support	(Contd. of page 13
	ed of causing cancer. ic to aquatic life.
· Precautionary	
P273	Avoid release to the environment.
P280	Wear protective gloves / eye protection.
P305+P351+P	338 IF IN EYES: Rinse cautiously with water for several minutes. Remove
	contact lenses, if present and easy to do. Continue rinsing.
P310 P333+P313	Immediately call a POISON CENTER/doctor. If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local/regional/
1 301	national/international regulations.
· Directive 2012	C C
=	erous substances - ANNEX I None of the ingredients is listed.
	ory E1 Hazardous to the Aquatic Environment
	antity (tonnes) for the application of lower-tier requirements 100 t
	antity (tonnes) for the application of upper-tier requirements 200 t
· REGULATION	I (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
	011/65/EU on the restriction of the use of certain hazardous
substances ir	n electrical and electronic equipment – Annex II
	gredients is listed.
	I (EU) 2019/1148
	TRICTED EXPLOSIVES PRECURSORS (Upper limit value for the censing under Article 5(3))
None of the ing	gredients is listed.
· Annex II - REI	PORTABLE EXPLOSIVES PRECURSORS
None of the ing	gredients is listed.
 Regulation (E 	C) No 273/2004 on drug precursors
None of the ing	gredients is listed.
	C) No 111/2005 laying down rules for the monitoring of trade
between the (Community and third countries in drug precursors
None of the ing	gredients is listed.
· National regu	lations
· Information a	bout limitation of use:
	estrictions concerning pregnant and lactating women must be observed.
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• Decree to be applied in case of technical fault:

Class	Share in %
I	6.2
NK	5.2

· Water hazard class:

Water danger class 3 (Self-assessment): highly water-endangering.

· Other regulations, limitations and prohibitive regulations

· Substances of very high concern (SVHC) according to REACH, Article 57

10043-35-3 boric acid

· 15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H290 May be corrosive to metals.

H302 Harmful if swallowed.

- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H351 Suspected of causing cancer.
- H360FD May damage fertility. May damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

- H400 Very toxic to aquatic life.
- · Recommended restriction of use No public product, only for commercial use
- Version number of previous version: 12.2

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation ADR: Accord relatif au transport international 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

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(Contd. of page 15) 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) LC50: Lethal concentration, 50 percent PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Met. Corr. 1: Corrosive to metals – Category 1 Acute Tox. 4: Acute toxicity – Category 4 Skin Corr. 1: Skin corrosion/irritation – Category 1A Skin Irrit. 2: Skin corrosion/irritation – Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 1 Muta. 2: Germ cell mutagenicity – Category 2 Skin Sens. 1: Skin sensitisation – Category 1 Muta. 2: Germ cell mutagenicity – Category 1 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1	
 Sources applicable EEC directives: 1907/2006 1272/2008 Internal physical tests, MSDS of the ingredients, Information system on hazardous substances of the German Social Accident Insurance (GESTIS-database on hazardous substances), http://www.dguv.de/ifa/en/gestis/stoffdb/index.jsp 	L



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Safety data sheet according to 1907/2006/EC, Article 31

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SECTION 1: Ide undertaking	entification of the substance/mixture and of the substance and of the substance and of the substance and of the substance and substance an	ne company/
· 1.1 Product ident	lifier	
· Trade name: Uni	roll-D Teil 2	
• Article number: 1 • UFI: 5Q00-7098-6		
	ntified uses of the substance or mixture and uses at information available.	advised against
Photochemicals Developer for X-ra	e substance / the mixture ay films strial and professional use.	
 1.3 Details of the Manufacturer/Su Calbe Chemie Grin Stadtfeld 31 D-39240 Calbe Tel.: +49 (0)39291 Fax: +49 (0)39292 e-mail: info@calbe www.calbe-chemic Informing depart Tel.: +49 (0)39291 E-Mail: rs@calbe- 	hbH I 425-0 1 425-25 e-chemie.de e.de ment: I 42515	
• 1.4 Emergency te Tel.: +49 (0) 700-2 Tel.: +1 872 58882	elephone number: 24112112 (CAL)	
SECTION 2: Ha	zards identification	
· Classification ac	n of the substance or mixture cording to Regulation (EC) No 1272/2008	
GHS08 h	ealth hazard	
Resp. Sens. 1	H334 May cause allergy or asthma symptoms or bre difficulties if inhaled.	athing
GHS05 cd	orrosion	
Skin Corr. 1B Eye Dam. 1	H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.	(Contd. on page 2)



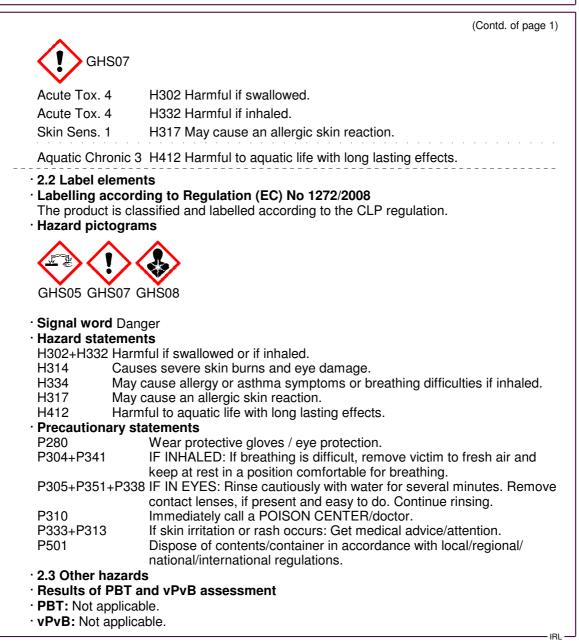
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- IRL

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

• **Description:** Mixture of the substances listed below with harmless additions.

· Dangerous compor	nents:	
CAS: 111-30-8 EINECS: 203-856-5	glutaral Acute Tox. 3, H301; Acute Tox. 2, H330 Resp. Sens. 1, H334 Skin Corr. 1B, H314 Aquatic Acute 1, H400; Aquatic Chronic 2, H411 Skin Sens. 1A, H317; STOT SE 3, H335 EUH071 Specific concentration limit: STOT SE 3; H335: C ≥ 0.5 %	5 - 10%
CAS: 110-15-6 EINECS: 203-740-4	succinic acid	0.5 - 2%
·SVHC		
111-30-8 glutaral		

• 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. Instantly remove any clothing soiled by the product. · After inhalation Take affected persons into the open air and position comfortably Seek medical treatment in case of complaints. · After skin contact Instantly wash with water and soap and rinse thoroughly. · After eye contact Rinse opened eye for several minutes under running water (at least 15 minutes). Remove contact lenses, if present and easy to do. Protect uninjured eye. Call a doctor immediately. · After swallowing Rinse out mouth and then drink plenty of water. Do not induce vomiting; instantly call for medical help. (Contd. on page 4)



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• 4.2 Most important symptoms and effects, both acute and delayed No known symptoms to date.

• 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

Suitable extinguishing agents

CO2, extinguishing powder or water jet. Fight larger fires with water spray jet or alcoholresistant foam.

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** Can be released in case of fire Sulphur oxides (SOx) Carbon monoxide
- 5.3 Advice for firefighters
- **Protective equipment:** Do not inhale explosion gases or combustion gases. At formation of toxic gases:

Put on breathing apparatus.

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.

Ensure adequate ventilation.

- 6.2 Environmental precautions:
- Do not allow to enter drainage system, surface or ground water.
- 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

6.4 Reference to other sections

See Section 8 for information on personal protection equipment.

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See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace. Avoid contact with the eyes and skin.
- Information about protection against explosions and fires: No special measures required.
- \cdot 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- **Requirements to be met by storerooms and containers:** Store container in a well ventilated position.
- Information about storage in one common storage facility: Keep away from foodstuffs, beverages and food.
- Further information about storage conditions: Keep container tightly sealed. Protect from heat and direct sunlight.
- Store in a cool place.
- Recommended storage temperature: 5-25 °C
- · Storage class 8 B
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

111-30-8 glutaral

OEL (Ireland) Short-term value: 0.2 mg/m³, 0.05 ppm Sens

· Additional information:

The lists that were valid during the compilation were used as basis.

- · 8.2 Exposure controls
- Appropriate engineering controls No further data; see section 7.
- Individual protection measures, such as personal protective equipment
 General protective and hygienic measures

The usual precautionary measures should be adhered to general rules for handling chemicals.

Keep away from foodstuffs, beverages and food.

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Trade name: Uniroll-D Teil 2

Filter A/P2. Hand protection Protective gloves. The protective gloves to 2016/425 and the result This recommendation a supplied by us as well a Only use chemical-prote Selection of the glove m diffusion and the degrad Material of gloves Thickness E (m	eyes and skin. n in case of insufficient ventilation. b be used must comply with the specifications of the (EU) cant standard EN 374. pplies only to the product stated in the Safety Data Sheet and is to the purpose specified by us. ective gloves with CE-labelling of category III. naterial on consideration of the penetration times, rates of dation
Use breathing protection Filter A/P2. • Hand protection Protective gloves. The protective gloves to 2016/425 and the result This recommendation a supplied by us as well a Only use chemical-prote Selection of the glove m diffusion and the degrad • Material of gloves Thickness E (m	n in case of insufficient ventilation. be used must comply with the specifications of the (EU) ant standard EN 374. pplies only to the product stated in the Safety Data Sheet and is to the purpose specified by us. ective gloves with CE-labelling of category III. naterial on consideration of the penetration times, rates of dation
Protective gloves. The protective gloves to 2016/425 and the result This recommendation a supplied by us as well a Only use chemical-prote Selection of the glove m diffusion and the degrad Material of gloves Thickness E (m	ant standard EN 374. pplies only to the product stated in the Safety Data Sheet and is to the purpose specified by us. ective gloves with CE-labelling of category III. naterial on consideration of the penetration times, rates of dation
Butyl rubber 0,3 Avoid natural rubber glo	65 > 240 36 > 480 oves.
· Eye/face protection Tig	ghtly sealed safety glasses.
· Body protection: Prote	ective work clothing.

Fluid	
Colourless	
Pungent	
Not determined.	
	Colourless Pungent

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		(Contd. of page
Melting point/freezing point:	< 5 °C	
· Boiling point or initial boiling point and		
boiling range	> 100 °C	
Flammability	Not applicable.	
Lower and upper explosion limit		
Lower:	Not determined.	
Upper:	Not determined.	
Flash point:	Not applicable	
Decomposition temperature:	Not determined.	
pH at 25 ℃	6.8	
Viscosity:		
Kinematic viscosity	Not determined	
dynamic:	Not determined	
Solubility		
Water:	miscible	
 Partition coefficient n-octanol/water (log 	·	
value)	Not determined.	
Vapour pressure at 20 °C:	23 hPa	
Density and/or relative density		
Density at 20 °C	1,160 g/cm³	
Relative density	Not determined.	
Vapour density	Not determined.	
9.2 Other information		
Appearance:		
Form:	Fluid	
Important information on protection of		
health and environment, and on safety.		
Self-inflammability:	Product is not selfigniting.	
Explosive properties:	Product is not explosive.	
Solvent content:		
Organic solvents:	0.0 %	
Water:	~ 70 %	
Change in condition		
Softening point/range		
Oxidising properties	None	
Evaporation rate	Not determined.	
•		
Information with regard to physical		
hazard classes		
Explosives	Void	
Flammable gases	Void	
		(Contd. on page



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Trade name: Uniroll-D Teil 2

		(Contd. of page
Aerosols	Void	
· Oxidising gases	Void	
· Gases under pressure	Void	
· Flammable liquids	Void	
· Flammable solids	Void	
· Self-reactive substances and mixtures	Void	
· Pyrophoric liquids	Void	
· Pyrophoric solids	Void	
· Self-heating substances and mixtures	Void	
· Substances and mixtures, which emit		
flammable gases in contact with water	Void	
· Oxidising liquids	Void	
Oxidising solids	Void	
· Organic peroxides	Void	
· Corrosive to metals	Void	
· Desensitised explosives	Void	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products:
- No dangerous decomposition products known

SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Harmful if swallowed or if inhaled.
- · Skin corrosion/irritation Causes severe skin burns and eye damage.
- · Serious eye damage/irritation Causes serious eye damage.
- · Respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.

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- **Reproductive toxicity** 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. • Additional toxicological information:
- This statement was deduced from the properties of the single components.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability Not determined
- · Behaviour in environmental systems: Not determined
- · 12.3 Bioaccumulative potential Not determined
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties
- The product does not contain substances with endocrine disrupting properties.
- 12.7 Other adverse effects
- · Ecotoxical effects: No further relevant information available.
- · Remark: Harmful to fish
- · Behaviour in sewage processing plants: Not determined
- · Additional ecological information:

· General notes:

This statement was deduced from the properties of the single components.

The product contains materials that are harmful to the environment.

Water hazard class 3 (German Regulation) (Self-assessment): highly waterendangering.

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

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Danger to drinking water if even small quantities leak into soil. At present there are no ecotoxicological assessments. Harmful to aquatic organisms The product does not contain organically bounded halogens (AOX-free).

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Must be specially treated under adherence to official regulations.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

	n waste catalogue
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 08*	discarded organic chemicals consisting of or containing hazardous substances
HP6	Acute Toxicity
HP8	Corrosive
HP14	Ecotoxic

· Uncleaned packagings:

· Recommendation:

Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

EAK-No. 15 01 10

Non contaminated packagings can be used for recycling.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

• Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport information

· 14.1 UN number or ID number

· ADR/RID, IMDG, IATA

UN1760

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	(Contd. of page 1
 14.2 UN proper shipping name ADR/RID, IMDG, IATA 	CORROSIVE LIQUID, N.O.S. (glutaral)
· 14.3 Transport hazard class(es	3)
· ADR/RID, IMDG, IATA	
· Class	8 Corrosive substances.
· Label	8
 14.4 Packing group ADR/RID, IMDG, IATA 	111
· 14.5 Environmental hazards:	
· Marine pollutant:	No
	ser Warning: Corrosive substances.
· Kemler Number:	80
· EMS Number:	F-A,S-B
· Segregation groups	none
 14.7 Maritime transport in bulk according to IMO instruments 	Not applicable.
· Transport/Additional informati	on:
· ADR/RID	
 Limited quantities (LQ) 	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· Remarks:	"Limited quantity" according to chapter 3.4 ADR
·IMDG	
· Remarks:	"Limited quantity" according to chapter 3.4 IMDG
IATA	
· Remarks:	Packing Instruction PAX 852, CAO 856
	(Contd. on page 1
	(Contd. on page



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· UN "Model Regulation":

UN 1760 CORROSIVE LIQUID, N.O.S. (GLUTARAL), 8, III

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.
- Hazard pictograms



GHS05 GHS07 GHS08

· Signal word Danger

· Hazard statements

H302+H332 Harmful if swallowed or if inhaled.

- Causes severe skin burns and eye damage. H314
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P280 Wear protective gloves / eye protection. IF INHALED: If breathing is difficult, remove victim to fresh air and P304+P341 keep at rest in a position comfortable for breathing.

- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. P310
- If skin irritation or rash occurs: Get medical advice/attention. P333+P313 Dispose of contents/container in accordance with local/regional/ P501 national/international regulations.

· Directive 2012/18/EU

- · Named dangerous substances ANNEX I None of the ingredients is listed.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II

None of the ingredients is listed.

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· REGULATION (EU) 2019/1148

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- Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))
- None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

 Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

National regulations

· Decree to be applied in case of technical fault:

Class	Share in %
I	9.6

• Water hazard class: Water danger class 3 (Self-assessment): highly water-endangering.

· Other regulations, limitations and prohibitive regulations

• Substances of very high concern (SVHC) according to REACH, Article 57

111-30-8 glutaral

· 15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

- H301 Toxic if swallowed.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.

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- IRL -



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 EUH071 Corrosive to the respiratory tract. Recommended restriction of use No public product, only for commercial use Version number of previous version: 12.2 Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organisation ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO) ADR: Accord relatif au transport international 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 	H411	Toxic to aquatic life with long lasting effects.	(Contd. of page 13
 Version number of previous version: 12.2 Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organisation ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO) ADR: Accord relatif au transport international 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 	EUH07	Corrosive to the respiratory tract.	
CAS: Chemical Abstracts Service (division of the American Chemical Society) PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative	 Recom Versior Abbrev RiD: Règi (Regulatii IATA-DGil IATA-DGil ICAO: Inti ICAO: ICAO: Inti ICAO: ICAO: ICAO:	mended restriction of use No public product, only for number of previous version: 12.2 iations and acronyms: ement international concernant le transport des marchandises dang ns Concerning the International Transport of Dangerous Goods by R: Dangerous Goods Regulations by the "International Air Transport ernational Civil Aviation Organisation Technical Instructions by the "International Civil Aviation Organisatio ord relatif au transport international des marchandises dangereuses at Concerning the International Carriage of Dangerous Goods by Ro ernational Maritime Code for Dangerous Goods mational Air Transport Association bally Harmonised System of Classification and Labelling of Chemic: European Inventory of Existing Commercial Chemical Substances European List of Notified Chemical Substances mical Abstracts Service (division of the American Chemical Society sistent, Bioaccumulative and Toxic ubstances of Very High Concern	gereuses par chemin de fer Rail) t Association" (IATA) on" (ICAO) s par route (European ad) als
	Skin Sens Skin Sens STOT SE Aquatic A Aquatic C	 1: Skin sensitisation – Category 1 1A: Skin sensitisation – Category 1A 3: Specific target organ toxicity (single exposure) – Category 3 cute 1: Hazardous to the aquatic environment - acute aquatic hazar hronic 2: Hazardous to the aquatic environment - long-term aquatic 	hazard – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1 Skin Sens. 1: Skin sensitisation – Category 1 Skin Sens. 1A: Skin sensitisation – Category 1A STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3	- 1907/2 - 1272/2 Internal Informa	ble EEC directives: 2006 2008 physical tests, MSDS of the ingredients, tion system on hazardous substances of the German S S-database on hazardous substances), http://www.dgu	



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SECTION 1: Identification of the substance/mixture and of the company/ undertaking
· 1.1 Product identifier
· Trade name: <u>Uniroll-D Teil 3</u>
· Article number: 10510-C · UFI: 8S00-Q0YN-G00R-SJ8P
 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
 Application of the substance / the mixture Photochemicals Developer for X-ray films Reserved for industrial and professional use.
 1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: Calbe Chemie GmbH Stadtfeld 31 D-39240 Calbe Tel.: +49 (0)39291 425-0 Fax: +49 (0)39291 425-25 e-mail: info@calbe-chemie.de www.calbe-chemie.de
 Informing department: Tel.: +49 (0)39291 42515 E-Mail: rs@calbe-chemie.de 1.4 Emergency telephone number: Tel.: +49 (0) 700-24112112 (CAL) Tel.: +1 872 5888271(CAL)
SECTION 2: Hazards identification
· 2.1 Classification of the substance or mixture · Classification according to Regulation (EC) No 1272/2008
GHS07
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2H319 Causes serious eye irritation.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects. (Contd. on page 2)



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		(Contd. of page 1)
· 2.2 Label elem	ents	
 Labelling acco 	rding to Regulation (EC) No 1272/2008	
	lassified and labelled according to the CLP regulation	on.
 Hazard pictogr 	ams	
\wedge		
\sim		
GHS07		
· Signal word W		
· Hazard statem		
H315 Causes s		
	erious eye irritation.	
· Precautionary	o aquatic life with long lasting effects.	
P273	Avoid release to the environment.	
P280	Wear protective gloves / eye protection.	
	38 IF IN EYES: Rinse cautiously with water for seve	ral minutes Remove
	contact lenses, if present and easy to do. Contin	
P337+P313	If eye irritation persists: Get medical advice/atter	
P501	Dispose of contents/container in accordance with	
	national/international regulations.	-
· 2.3 Other haza	rds	
	and vPvB assessment	
• PBT: Not applic		
· vPvB: Not appl	cable.	

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· **Description:** Mixture of the substances listed below with harmless additions.

 Dangerous compo 	nents:	
CAS: 64-19-7	acetic acid	15 - 20%
EINECS: 200-580-7	 Flam. Liq. 3, H226 Skin Corr. 1A, H314 	
	Skin Corr. 1A, H314	
	Acute Tox. 4, H312	
	Specific concentration limits:	
	Skin Corr. 1A; H314: C ≥90 %	
	Skin Corr. 1B; H314: 25 % ≤ C < 90 %	
	Skin Irrit. 2; H315: 10 % ≤ C < 25 %	
	Eye Irrit. 2; H319: 10 % ≤ C < 25 %	
L	1	(Contd. on page 3)
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	(Cor	ntd. of page 2)
CAS: 107-98-2	1-methoxypropan-2-ol	10 - 15%
EINECS: 203-539-1	 Flam. Liq. 3, H226 STOT SE 3, H336 	
CAS: 92-43-3	1-phenyl-3-pyrazolidone	5 - 10%
EINECS: 202-155-1	Aquatic Chronic 2, H411	

• 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. Instantly remove any clothing soiled by the product.

· After inhalation Supply fresh air.

· After skin contact Instantly wash with water and soap and rinse thoroughly.

· After eye contact

Rinse opened eye for several minutes under running water (at least 15 minutes). Remove contact lenses, if present and easy to do. Protect uninjured eye. Call a doctor immediately.

After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; instantly call for medical help.

- 4.2 Most important symptoms and effects, both acute and delayed No known symptoms to date.
- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- Suitable extinguishing agents CO2, extinguishing powder or water jet. Fight larger fires with water spray jet or alcoholresistant foam.
- · For safety reasons unsuitable extinguishing agents Water with a full water jet.
- 5.2 Special hazards arising from the substance or mixture Can be released in case of fire

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- Carbon monoxide 5.3 Advice for firefighters
- Protective equipment: Do not inhale explosion gases or combustion gases. At formation of toxic gases: Put on breathing apparatus.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation.
- 6.2 Environmental precautions:
- Do not allow to enter drainage system, surface or ground water.
- 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose of contaminated material as waste according to item 13. 6.4 Reference to other sections

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 Ensure good ventilation/exhaustion at the workplace. Avoid contact with the eyes and skin.
- Information about protection against explosions and fires: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- · Requirements to be met by storerooms and containers: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:
- Keep container tightly sealed.
- Protect from heat and direct sunlight.
- Store in a cool place.
- · Recommended storage temperature: 5-25 ℃
- · Storage class 8 A

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• 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

o. r control parameters		
· Components with limit values that require monitoring at the workplace:		
64-19-7 acetic acid		
OEL (Ireland)	Short-term value: 50 mg/m ³ , 20 ppm Long-term value: 25 mg/m ³ , 10 ppm IOELV	
IOELV (European Union)	Short-term value: 50 mg/m ³ , 20 ppm Long-term value: 25 mg/m ³ , 10 ppm	
107-98-2 1-methoxyprop	ban-2-ol	
OEL (Ireland)	Short-term value: 568 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm IOELV	
IOELV (European Union)	Short-term value: 568 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm Skin	

· Additional information:

The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

- · Appropriate engineering controls No further data; see section 7.
- Individual protection measures, such as personal protective equipment
 General protective and hygienic measures

The usual precautionary measures should be adhered to general rules for handling chemicals.

Keep away from foodstuffs, beverages and food.

- Do not eat, drink or smoke while working.
- Take off immediately all contaminated clothing.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Breathing equipment:

Use a breathing protection if high concentrations are present. Filter AX.

· Hand protection

Protective gloves.

The protective gloves to be used must comply with the specifications of the (EU) 2016/425 and the resultant standard EN 374.

This recommendation applies only to the product stated in the Safety Data Sheet and (Contd. on page 6)

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supplied by us as well as to the	e purpose specified by us.
Only use chemical-protective g	gloves with CE-labelling of category III.
	on consideration of the penetration times, rates of
diffusion and the degradation	
Material of gloves	
	reakthrough time (min)
Chloroprene rubber 0	,5 > 480
	,35 > 480
Butyl rubber 0,	5 > 480
Fluorocarbon rubber 0,	
PVC 0,	5 > 480
Avoid natural rubber gloves.	
As protection from splashes	gloves made of the following materials are suitable
Synthetic gloves	
Value for permeation: Level \geq	3 (60 min)
Eye/face protection Tightly se	ealed safety classes
-yenace protection rightly se	ealeu salely ylasses.
 Body protection: Protective v 	vork clothing.
SECTION 9: Physical and	chemical properties
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· Desensitised explosives

Void

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SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products:

No dangerous decomposition products known

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.
- · Skin corrosion/irritation Causes skin irritation.
- · Serious eye damage/irritation Causes serious eye irritation.
- · Respiratory or skin sensitisation
- Based on available data, the classification criteria are not met.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- \cdot 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.
- · Additional toxicological information:

This statement was $\bar{d}educed$ from the properties of the single components.

· 11.2 Information on other hazards

· Endocrine disrupting properties

None of the ingredients is listed.

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SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity: No further relevant information available.

- 12.2 Persistence and degradability Not determined
- · Behaviour in environmental systems: Not determined
- · 12.3 Bioaccumulative potential Not determined
- **12.4 Mobility in soil** No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties
- The product does not contain substances with endocrine disrupting properties.
- 12.7 Other adverse effects
- · Ecotoxical effects: No further relevant information available.
- · Remark: Harmful to fish
- · Additional ecological information:

· General notes:

This statement was deduced from the properties of the single components. Water hazard class 2 (German Regulation) (Self-assessment): Water-endangering. Do not allow product to reach ground water, water bodies or sewage system. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

At present there are no ecotoxicological assessments.

Harmful to aquatic organisms

The product does not contain organically bounded halogens (AOX-free).

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Must be specially treated under adherence to official regulations.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

· European waste catalogue

16 00 00 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

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	(Contd. of page 9)
16 05 00	gases in pressure containers and discarded chemicals
	discarded organic chemicals consisting of or containing hazardous substances
HP8	Corrosive
HP14	Ecotoxic

· Uncleaned packagings:

· Recommendation:

Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

EAK-No. 15 01 10

Non contaminated packagings can be used for recycling. Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

· Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport inform	mation	
 14.1 UN number or ID number ADR/RID, IMDG, IATA 	UN2790	
 14.2 UN proper shipping name ADR/RID, IMDG, IATA 	ACETIC ACID SOLUTION	
· 14.3 Transport hazard class(es)		
· ADR/RID, IMDG, IATA		
· Class	8 Corrosive substances.	
· Label	8	
 14.4 Packing group ADR/RID, IMDG, IATA 	Ш	
 · 14.5 Environmental hazards: · Marine pollutant: 	No	
· 14.6 Special precautions for use · Kemler Number:	0	
· Kemier Number: · EMS Number:	80 F-A,S-B	
	,	(Contd. on page 1
		(



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	(Contd. of page 10
 Segregation groups Stowage Category 	(SGG1) Acids
	R
• 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information	n:
· ADR/RID	
 Limited quantities (LQ) 	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000
	ml
 Transport category 	3
 Tunnel restriction code 	E
· Remarks:	"Limited quantity" according to chapter 3.4 ADR
·IMDG	
 Limited quantities (LQ) 	5L
• Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000
	ml
· Remarks:	"Limited quantity" according to chapter 3.4 IMDG
·IATA	
· Remarks:	PAX 852 CAO 856
· UN "Model Regulation":	UN 2790 ACETIC ACID SOLUTION, 8, III

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.
- · Hazard pictograms



· Signal word Warning

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· Hazard a	statements	(Contd. of page
	uses skin irrita	ation
	uses serious	
H412 Ha	rmful to aqua	tic life with long lasting effects.
· Precauti	onary statem	nents
P273		pid release to the environment.
P280 P305+P3	351+P338 IF I	ear protective gloves / eye protection. N EYES: Rinse cautiously with water for several minutes. Remo ntact lenses, if present and easy to do. Continue rinsing.
P337+P3 P501	Dis	ye irritation persists: Get medical advice/attention. pose of contents/container in accordance with local/regional/ ional/international regulations.
	e 2012/18/EU	
· Named o	dangerous su	Ibstances - ANNEX I None of the ingredients is listed. In 1907/2006 ANNEX XVII Conditions of restriction: 3
		EU on the restriction of the use of certain hazardous cal and electronic equipment – Annex II
None of	the ingredient	s is listed.
· REGULA	ATION (EU) 2	019/1148
		ED EXPLOSIVES PRECURSORS (Upper limit value for the under Article 5(3))
None of	the ingredient	s is listed.
· Annex II	- REPORTAR	BLE EXPLOSIVES PRECURSORS
None of	the ingredient	s is listed.
· Regulati	on (EC) No 2	73/2004 on drug precursors
None of	the ingredient	s is listed.
		11/2005 laying down rules for the monitoring of trade nity and third countries in drug precursors
None of	the ingredient	s is listed.
· National	regulations	
· Decree t	o be applied	in case of technical fault:
	Share in %	
Class		
Class II NK	18.8 12.6	



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15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. · Relevant phrases H226 Flammable liquid and vapour. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects. · Recommended restriction of use No public product, only for commercial use · Version number of previous version: 12.2 Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation ADR: Accord relatif au transport international 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) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids - Category 3 Acute Tox. 4: Acute toxicity – Category 4 Skin Corr. 1A: Skin corrosion/irritation – Category 1A Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3 Sources applicable EEC directives: - 1907/2006 - 1272/2008 Internal physical tests, MSDS of the ingredients, Information system on hazardous substances of the German Social Accident Insurance (GESTIS-database on hazardous substances), http://www.dguv.de/ifa/en/gestis/stoffdb/ index.jsp IRI -