

Printing date 09.02.2025

Version no: 3

Revision 09.02.2025

Trade name: SE5 LITH A

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

Trade name: SE5 LITH A

UFI: 4410-R0R6-K001-E973

Application of the mixture: Photographic developer

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Moersch Photochemie  
Am Heideberg 48  
50354 Hürth  
Tel.: + 49(0)2233-943137  
Fax: + 49(0)2233-943138  
E-Mail: [wolfgang@moersch-photochemie.de](mailto:wolfgang@moersch-photochemie.de)  
[www.moersch-photochemie.de](http://www.moersch-photochemie.de)

Emergency telephone number:

Poison Information Centre Berlin (Germany): +49 (0) 30 - 30686 790

**SECTION 2: Hazards identification****2.1 Classification of the mixture**

Classification according to Regulation (EC) No 1272/2008

Section	Hazard Class	Category	Hazard Class and Category	Hazard Statement
3.10	Acute toxicity (oral)	4	Acute Tox. 4	H302
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.45	Skin sensitisation	1	Skin Sens. 1	H317
3.5	Germ cell mutagenicity	2	Muta. 2	H341
3.6	Carcinogenicity	1B	Carc. 1B	H350

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## 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS05, GHS07, GHS08, GHS09

Signal word: Danger

Hazard statements

H302 Harmful if swallowed

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H410 Very toxic to aquatic life with long lasting effects

## Precautionary statements

Precautionary statements - prevention

P273 Avoid release to the environment

P280 Wear protective gloves/protective clothing/eye protection

Precautionary statements - response

P301+P313 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell

P302+P352 IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P333+P313 If Skin irritation or rash occurs: Get medical advice/attention

## 2.3 Other hazards

### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

### Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

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

Chemical characterisation: Mixture

Description: Mixture of substances below and with nonhazardous additions

Components:

Identifiers	Substance	Classification	% w/w
CAS: 111-46-6 EG-Nr: 203-872-2 EG Indexnummer: 603-140-00-6	Diethylenglycol (2,2'-Oxydiethanol)	STOT RE2, H373; Acute Tox. 4, H302	1-3 %
CAS: 123-31-9 EG-Nr: 204-617-8 EG Indexnummer: 604-005-00-4 REACH Reg.Nr.: 01-2119524016-51-xxxx	Hydrochinon (1,4-Dihydroxybenzol)	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Muta. 2, H341; Carc. 2, H351; Eye Dam. 1, H318; Aquatic Acute 1, H400; Acute Tox. 4 H302; Skin Sens. 1, H317	10-15 %
CAS: 870-72-4 EG-Nr: 212-800-9	Sodium-(hydroxymethansulfonate)	not classified	1-3 %
CAS: 7647-15-6 EG-Nr: 231-599-9 REACH Reg.-Nr. 01-21-9490106-41-xxxx	Sodium bromide	not classified	1 %

**SECTION 4: First aid measures****4.1 Description of first aid measures**

General information: Take off contaminated clothing

After skin contact: Immediately rinse with water.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a physician.

After swallowing: Rinse mouth immediately and drink plenty of water. Call a physician immediately. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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

Irritation, Allergic reactions, Vomiting, Diarrhoea, Circulatory collapse, Risk of serious damage to eyes

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

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing agents:

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

#### 5.2 Special hazards arising from the substance or mixture: Carbon dioxide (CO<sub>2</sub>)

Carbon monoxide (CO)

**5.3 Advise for firefighters:** In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

### SECTION 6: Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

#### 6.2 Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ 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). Ensure adequate ventilation.

#### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

Information about fire - and explosion protection: Protect from heat.

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

Store away from foodstuffs.

Store away from oxidising agents.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles. Protect from heat, cold and

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direct sunlight.

Store under lock and key and out of the reach of children.

Recommended storage temperature: 10-30 °C

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

This information is not available

#### Relevant DNELs of components

Hydroquinone CAS No 123-31-9

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	2,1 mg/l	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	3,33 mg/l	human, dermal	worker (industry)	chronic - systemic effects

#### Relevant PNECs of components

Hydroquinone CAS No 123-31-9

Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
PNEC	0,57 mg/l	aquatic organisms	freshwater	short-term (single instance)
PNEC	0,057 mg/l	aquatic organisms	marine water	short-term (single instance)
PNEC	0,71 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	4,9 mg/l	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	0,49 mg/l	aquatic organisms	marine sediment	short-term (single instance)

### 8.2 Exposure controls

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

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**Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min (permeation: level 6)

**Body Protection**

protective clothing

**Control of environmental exposure**

Do not let product enter drains.

**SECTION 9: Physical and chemical properties**

General information	
Form:	fluid
Colour:	amber
Odour:	odourless
Change in condition	
Melting point:	Not determined
Melting range:	Not determined
Flash point	Not applicable
Flammability	Not applicable
Danger of explosion	Not applicable
Vapour pressure at 20° C	Not determined
Density at 20° C	1.12 g/cm <sup>3</sup>
Solubility in/Miscibility with water	Fully miscible
pH-Value at 20° C	5.5
Solid content	20,00 %
Solvent content	
Organic solvents:	0 %
Water:	80 %
VOC (EU):	0 %

**SECTION 10: Stability and reactivity****10.1 Reactivity**

This mixture is not reactive under normal ambient conditions.

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**10.2 Chemical stability**

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**10.3 Possibility of hazardous reactions**

Violent reaction with: none known

**10.4 Conditions to avoid**

UV-radiation/sunlight. Contact with air/oxygen.

**10.5 Incompatible materials**

There is no additional information.

**10.6 Hazardous decomposition products**

Hazardous combustion products: see section 5.

**SECTION 11: Toxicological information****Acute toxicity**

Harmful if swallowed

Hydroquinone

Exposure route	Endpoint	Value	Species	Source
oral	LD50	>375 mg/kg	rat	ECHA
dermal	LD50	>2000 mg/kg	rabbit	ECHA

**Skin corrosion/irritation**

Shall not be classified as corrosive/irritant to skin.

**Serious eye damage/eye 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**

Shall not be classified as a reproductive toxicant.

**Specific target organ toxicity - single exposure**

Shall not be classified as a specific target organ toxicant (single exposure).

**Specific target organ toxicity - repeated exposure**

Shall not be classified as a specific target organ toxicant (repeated exposure).

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**Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

**Symptoms related to the physical, chemical and toxicological characteristics****• If swallowed**

diarrhoea, vomiting, nausea

**• If in eyes**

corneal opacity, Causes serious eye damage, risk of blindness

**• If inhaled**

Not possible - Solution

**• If on skin**

May produce an allergic reaction, pruritis, localised redness

**SECTION 12: Ecological information****12.1 Toxicity**

Aquatic toxicity (acute)

Endpoint	Value	Species	Source	Exposure time
LC50	0,638 mg/l	fisch	ECHA	96 h
EC50	0,134 mg/l	aquatic invertebrates	ECHA	48 h
ErC50	0,33 mg/l	algae	ECHA	72 h

Aquatic toxicity (chronic)

Endpoint	Value	Species	Source	Exposure time
LC50	0,061 mg/l	aquatic invertebrates	ECHA	21 d
EC50	0,08 mg/l	aquatic invertebrates	ECHA	21 d
NOEC	>100 µg/l	fish	ECHA	32 d
LOEC	0,005 mg/l	aquatic invertebrates	ECHA	21 d

**12.2 Persistence and degradability:**

Theoretical oxygen demand: 1,889 mg/mg

Theoretical carbon dioxide: 2,398 mg/mg

Biodegradation

The substance is readily biodegradable.

**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.

Additional ecological information: Water hazard class 2 (German Regulation) : hazardous for water. Do not allow product to reach ground water, water course or sewage system.



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## 12.5 Results of PBT and vPvB assessment

Data are not available

## 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

This material (unused solution) and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Properties of waste which render it hazardous

HP 4	irritant – skin irritation and eye damage
HP 6	acute toxicity
HP 7	carcinogenic
HP 11	mutagenic
HP 13	sensitising
HP 14	ecotoxic

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

When used as intended (mixture with Lith B as developer), the hydroquinone in lith developers oxidises rapidly under the influence of oxygen (in an open tray) to quinone (recognisable by dark red colouration) and can therefore the worst be classified as slightly water-hazardous.

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**SECTION 14: Transport information**

ADR	IMDG	IATA	ADN	RID
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**14.1 UN number or ID number**

UN 3077	UN 3077	UN 3077	UN 3077	UN 3077
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**Proper shipping name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, FLUID, N.O.S. (Hydroquinone)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, FLUID, N.O.S. (Hydroquinone)	Environmentally hazardous substance, liquid, n.o.s. (HYDROQUINONE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, FLUID, N.O.S. (Hydroquinone)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, FLUID, N.O.S. (Hydroquinone)
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**14.2 Particulars in the transport document**

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, FLUID, N.O.S. (Hydroquinone) 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, FLUID, N.O.S. (Hydroquinone) 9, III, marine pollutant	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, FLUID, N.O.S. (Hydroquinone) 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, FLUID, N.O.S. (Hydroquinone) 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, FLUID, N.O.S. (Hydroquinone) 9, III
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**14.3 Transport hazard class(es)**

9 	9 	9 	9 	9 
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**14.4 Packing group**

III	III	III	III	III
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**14.5 Environmental hazards**

hazardous to the aquatic environment	hazardous to the aquatic environment, marine pollutant	hazardous to the aquatic environment	hazardous to the aquatic environment	hazardous to the aquatic environment
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**14.6 Special precautions for user**

Provisions for dangerous goods (ADR) should be complied within the premises.

**14.7 Maritime transport in bulk according to IMO instruments**

The cargo is not intended to be carried in bulk.

**14.8 Information for each of the UN Model Regulations****Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)  
- Additional information**

Classification code (ADR)	M7
Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3
Hazard identification No	90
Tunnel restriction code (TRC)	—

**International Maritime Dangerous Goods Code (IMDG) - Additional information**

Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Packaging instructions	LP01, P001
Special regulations for packaging	PP1
IBC packing instructions	IBC03
EmS. (In case of fire)	F-A
EmS (in case of accidental release)	S-F
Staukategorie (IMDG) Stowage category	A

**International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information**

Excepted quantities (EQ)	E1
Limited quantities (LQ)	30 kg

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Special provisions (SP)	A97, A158, A197, A215
ERG-Code (IATA)	9L

**Inland waterway transport**

Classification (ADN)	M7
Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport authorised (ADN)	T

**Rail transport**

Classification (RID)	M7
Special provisions (RID)	274, 335, 375, 601
Limited quantities (RID)	5 kg
Excepted quantities (RID)	E1
Packaging instructions (RID)	P001, IBC03, LP01, R001
Special regulations for packaging (RID)	PP1
Special regulations for packing together (RID)	MP19
Transport category (RID)	3
Special conditions of carriage - packages (RID)	W12
Hazard identification No (RID)	90

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the mixture**  
Relevant provisions of the European Union (EU)

**Restrictions according to REACH, Annex XVII**  
not listed

**List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list**  
not listed

**Industrial Emissions Directive (IED)**  
VOC content 0g/l

**Regulation on the marketing and use of explosives precursors**

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not listed

**Regulation on drug precursors**

not listed

**Regulation on substances that deplete the ozone layer (ODS)**

not listed

Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

**Regulation on persistent organic pollutants (POP)**

not listed

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H412 Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

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Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

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Trade name: SE5 LITH B

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

Trade name: SE5 LITH B  
UFI: 1710-80EK-V00H-3MT5

**1.2 Application of the mixture:** Lith developer activator**1.3 Details of the supplier of the safety data sheet**

Manufacturer/Supplier:

Moersch Photochemie  
Am Heideberg 48  
50354 Hürth  
Tel.: + 49(0)2233-943137  
Fax: + 49(0)2233-943138  
E-Mail: [wolfgang@moersch-photochemie.de](mailto:wolfgang@moersch-photochemie.de)  
[www.moersch-photochemie.de](http://www.moersch-photochemie.de)

**1.4 Emergency telephone number:**

Poison Information Centre Berlin (Germany): +49 (0) 30 - 30686 790

**SECTION 2: Hazards identification****2.1 Classification of the mixture**

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

Section	Hazard Class	Category	Hazard Class and category	Hazard statement
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	2A	Eye Irrit. 2A	H319

For full text of abbreviations: see SECTION 16

**2.2 Label elements**

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

Signal word      Warning  
Pictograms

GHS07

**Hazard statements**

H315 Causes skin irritation

H319 Causes serious eye damage

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Trade name: SE5 LITH B

**Precautionary statements – prevention**

P280 Wear protective gloves

**Precautionary statements – response**

P302+P352 IF ON SKIN: Wash with plenty of water

P305+P351+P338 IIF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Precautionary statements - storage**

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

**Precautionary statements - disposal**

P501 Dispose of contents/container to industrial combustion plant.

**2.3 Other hazards**

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .**SECTION 3: Composition/information on ingredients**

Chemical characterisation: Mixture

Description: Mixture of substances below and with nonhazardous additions

Dangerous components:

CAS: 584-08-7 EINECS: 209-529-3 Reg.nr.: 01-2119532646-36	Potassium carbonate	35-40%
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For full text of abbreviations: see SECTION 16

**SECTION 4: First aid measures****4.1 Description of first aid measures**



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General information: Take off contaminated clothing

After skin contact: Immediately rinse with water.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.

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

Irritation, Gastrointestinal complaints, Diarrhoea, Abdominal pain, Nausea, Vomiting

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

none

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

#### **5.1 Extinguishing media**

Suitable extinguishing agents:

co-ordinate firefighting measures to the fire surroundings!

water, foam, alcohol resistant foam, dry extinguishing powder, ABC-powder

Unsuitable extinguishing media

water jet

#### **5.2 In case of fire may be liberated:**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

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

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

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

**. 6.1 Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.

**Ensure adequate ventilation**

. 6.2 Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ 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). Ensure adequate ventilation.

. 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

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

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

#### **Provision of sufficient ventilation.**

Measures to prevent fire as well as aerosol and dust generation

Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

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

Keep container tightly closed.

Incompatible substances or mixtures

Observe hints for combined storage. Incompatible materials: see section 10.

Consideration of other advice: Ventilation requirements

Use local and general ventilation.

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

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

Alkali for Lith A

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

### **8.1 Control parameters**

#### **National limit values**

#### **Occupational exposure limit values (Workplace Exposure Limits)**

This product, as supplied, does not contain harmful substances with occupational exposure limits set by the authority responsible for the region.

### **8.2 Exposure controls**

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

##### **Eye/face protection**

Use safety goggle with side protection.

##### **Skin protection**

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

##### **Type of material**

NBR (nitrile rubber)

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Material thickness

&gt;0,11 mm

**Breakthrough times of the glove material**

&gt;480 minutes (permeation: level 6)

**SECTION 9: Physical and chemical properties**

-General information Form: Colour: Odour:	fluid yellowish not perceptible
Change in condition Melting point: Melting range:	not determined not determined
Flash point	not applicable
Flammability	not applicable
Danger of explosion	not applicable
Vapour pressure at 20° C	23 hPa
Density at 20° C	1.40 g/cm <sup>3</sup>
Solubility in/Miscibility with water	fully miscible
pH-Value at 20° C	12,9
Solvent content Organic solvents: Water: VOC (EU):	0 % >60 % 0 %

**SECTION 10: Stability and reactivity****10.1 Reactivity**

This mixture is not reactive under normal ambient conditions.

**10.2 Chemical stability**

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Possibility of hazardous reactions**

Violent reaction with: Strong oxidisers

**10.4 Conditions to avoid**

UV-radiation/sunlight. Keep away from heat and cold.

**10.5 Incompatible materials**

There is no additional information.

**10.6 Hazardous decomposition products**

Hazardous combustion products: see section 5.

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**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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

Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4. May be harmful if swallowed or in contact with skin.

Exposure route	Endpoint	Value	Species	Source
oral	LD50	>2000 mg/kg	rat	ECHA
dermal	LD50	>2000 mg/kg	rabbit	ECHA

**Skin corrosion/irritation**

Causes Skin irritation.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Respiratory or skin sensitisation**

Shall not be classified as a respiratory or skin sensitiser.

**Germ cell mutagenicity**

Shall not be classified as germ cell mutagenic.

**Carcinogenicity**

Shall not be classified as carcinogenic.

**Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

**Specific target organ toxicity - single exposure**

Shall not be classified as a specific target organ toxicant (single exposure).

**Specific target organ toxicity - repeated exposure**

Shall not be classified as a specific target organ toxicant (repeated exposure).

**Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

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

• If swallowed:

data are not available

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- If in eyes  
causes serious eye irritation
- If inhaled  
not possible
- If on skin  
causes skin irritation
- Other information  
none

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Endpoint	Value	Species	Source	Exposure time
LC50	68 mg/l	fish	ECHA	96 h
EC50	200 mg/l	aquatic invertebrates	ECHA	48 h

### 12.2 Persistence and degradability:

Theoretical Oxygen Demand: -0.1158 mg/mg

Theoretical Carbon Dioxide: 0.3184 mg/mg

**12.3 Bioaccumulative potential:** Data are not available.

**12.4 Mobility in soil:** Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

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### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### Properties of waste which render it hazardous

HP 4 irritant - skin irritation and eye damage

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

## SECTION 14: Transport information

<b>14.1 UN number or ID number</b>	not subject to transport regulations
<b>14.2 UN proper shipping name</b>	not assigned
<b>14.3 Transport hazard class(es)</b>	not assigned
<b>14.4 Packing group</b>	not assigned
<b>14.5 Environmental hazards</b>	non-environmentally hazardous acc. to the dangerous goods regulations
<b>14.06 Special precautions for user</b>	There is no additional information.

### 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

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

**Transport of dangerous goods by road, rail or inland waterway (ADR/RID/ADN) - Additional information** Not subject to ADR, RID and ADN regulations.

**International Maritime Dangerous Goods Code (IMDG) - Additional information**  
Not subject to IMDG

**International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information**  
Not subject to ICAO-IATA.

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**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

There is no additional information

**15.2 Chemical safety assessment**

A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**List of relevant phrases (code and full text as stated in section 2 and 3)**

H315 Causes skin irritation  
H319 Causes serious eye irritation

## Abbreviations and acronyms

ADR: Accord europeen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Reglement internationale concernent le transport des marchandises dangereuses par chemin de fer (Regulations concerning the international Transport of Dangerous Goods by Rail)  
MDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
ATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative