

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)

( EN / D )

**Trade name :** Lithofin BERO

**Revision date :** 03.03.2021  
**Print date :** 13.04.2021

**Version (Revision) :** 4.2.0 (4.1.0)

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

**1.1 Product identifier**

Lithofin BERO

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

Mixture Washing and cleaning products, acidic

**1.3 Supplier**

**Distributor :**

Street :

Postal code/city :

Telephone :

Telefax :

Contact :

Casdron Enterprises Ltd.

Wood End, Prospect Road

GB- New Alresford, Hants SO 24 9QF

+44 1962 732126

+44 1962 735373

Technical Department

E-mail: sales@lithofin.co.uk

Emergency telephone number:

0196 2732126

(Only available during office hours)

**Supplier :**

Street :

Postal code/city :

Telephone :

Telefax :

Contact :

Lithofin AG

Heinrich-Otto-Str. 36

73240 Wendlingen

+49 (0)7024 9403-0

+49 (0)7024 9403-40

Technical Department

E-mail: info@lithofin.de

Emergency telephone number:

+49 (0)7024 9403-0

(Only available during office hours)

**1.4 Emergency telephone number**

see section 1.3

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

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

Met. Corr. 1 ; H290 - Corrosive to metals : Category 1 ; May be corrosive to metals.

Skin Corr. 1B ; H314 - Skin corrosion/irritation : Category 1B ; Causes severe skin burns and eye damage.

Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.

**Additional information**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**Remark**

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

**2.2 Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms**

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Corrosion (GHS05)

**Signal word**

Danger

**Hazard components for labelling**

PHOSPHORIC ACID ; CAS No. : 7664-38-2

**Hazard statements**

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

**Precautionary statements**

P102 Keep out of reach of children.  
P234 Keep only in original packaging.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405 Store locked up.

**Special rules for supplemental label elements for certain mixtures**

EUH208 Contains Hydroxyethylated 2-butyne-1,4-diol.May produce an allergic reaction.

**2.3 Other hazards**

None

**2.4 Additional information**

see section 12.5

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Hazardous ingredients**

PHOSPHORIC ACID ; REACH No. : 01-2119485924-24-xxxx ; EC No. : 231-633-2; CAS No. : 7664-38-2

Weight fraction :  $\geq 30 - < 35$  %  
Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318  
Specific Conc. Limits : Eye Dam. 1 ; H318: C  $\geq 25$  % • Skin Corr. 1B ; H314: C  $\geq 25$  % • Skin Corr. 1C ;  
H314: C  $\geq 25$  % • Eye Irrit. 2 ; H319: C  $\geq 10$  % • Skin Irrit. 2 ; H315: C  $\geq 10$  %

Hydroxyethylated 2-butyne-1,4-diol ; REACH No. : 01-2119970539-23-xxxx ; EC No. : 608-711-3; CAS No. : 32167-31-0

Weight fraction :  $\geq 0,1 - < 0,5$  %  
Classification 1272/2008 [CLP] : STOT RE 2 ; H373 Acute Tox. 4 ; H302 Skin Sens. 1 ; H317

**This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH**

None (below the concentration limit)

**This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH**

None (below the concentration limit)

**Additional information**

All ingredients of this mixture are (pre)registered according to REACH regulation.  
Full text of H- and EUH-statements: see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information**

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When in doubt or if symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps. If unconscious place in recovery position and seek medical advice.

### Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

### In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Immediately remove any contaminated clothing, shoes or stockings. Do not wash with: Cleaning agent, acidic Cleaning agent, alkaline Solvents/Thinner

### After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.

### After ingestion

Call a physician immediately. Keep at rest. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting.

### Self-protection of the first aider

First aider: Pay attention to self-protection!

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

No information available.

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

### Notes for the doctor

Treat symptomatically.

### Special treatment

First Aid, decontamination, treatment of symptoms.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water spray jet ABC-powder Foam

#### Unsuitable extinguishing media

Full water jet Strong water jet

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

#### Hazardous combustion products

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

### 5.3 Advice for firefighters

Use suitable breathing apparatus.

#### Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

### 5.4 Additional information

Use water spray jet to protect personnel and to cool endangered containers. Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

## SECTION 6: Accidental release measures

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

Wear personal protection equipment (refer to section 8). Provide adequate ventilation. Remove persons to safety.

### 6.2 Environmental precautions

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

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

#### For cleaning up

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Suitable material for taking up: Universal binder  
Clean contaminated articles and floor according to the environmental legislation. Retain contaminated washing water and dispose it. Dispose of waste according to applicable legislation.

## Other information

Clear spills immediately.

## 6.4 Reference to other sections

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

When using do not eat, drink, smoke, sniff.

#### Protective measures

All work processes must always be designed so that the following is excluded: Inhalation of vapours or spray/mists  
Skin contact Eye contact Wear personal protection equipment (refer to section 8). Always close containers tightly after the removal of product. Do not breathe gas/fumes/vapour/spray. Use only in well-ventilated areas. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Technical measures and the application of suitable work processes have priority over personal protection equipment.

#### Measures to prevent fire

The product is not: Flammable Usual measures for fire prevention.

**Fire class :** -

**Shake well before use** No

#### Advices on general occupational hygiene

P362+P364 - Take off contaminated clothing and wash it before reuse.

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

#### Requirements for storage rooms and vessels

Keep container tightly closed. Keep/Store only in original container. The floor should be leak tight, jointless and not absorbent. Ensure adequate ventilation of the storage area.

#### Hints on joint storage

**Storage class (TRGS 510) :** 8B

**Recommended storage temperature** 5 - 25 °C

**Protect from frost** No

#### Further information on storage conditions

Keep locked up and out of reach of children. Keep container tightly closed in a cool, well-ventilated place.

### 7.3 Specific end use(s)

#### Recommendation

Observe technical data sheet. Observe instructions for use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

PHOSPHORIC ACID ; CAS No. : 7664-38-2

Limit value type (country of origin) : TRGS 900 ( D )

Parameter : E: inhalable fraction

Limit value : 2 mg/m<sup>3</sup>

Peak limitation : 2(I)

Remark : Y

Version : 27.10.2020

Limit value type (country of origin) : STEL ( EC )

Limit value : 2 mg/m<sup>3</sup>

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Version : 20.06.2019  
Limit value type (country of origin) : TWA ( EC )  
Limit value : 1 mg/m<sup>3</sup>  
Version : 20.06.2019

## DNEL-/PNEC-values

### DNEL/DMEL

PHOSPHORIC ACID ; CAS No. : 7664-38-2

Limit value type : DNEL Consumer (local)  
Exposure route : Inhalation  
Exposure frequency : Long-term  
Limit value : 0,73 mg/m<sup>3</sup>  
Limit value type : DNEL worker (local)  
Exposure route : Inhalation  
Exposure frequency : Long-term  
Limit value : 2,92 mg/m<sup>3</sup>

Hydroxyethylated 2-butyne-1,4-diol ; CAS No. : 32167-31-0

Limit value type : DNEL worker (systemic)  
Exposure route : Dermal  
Exposure frequency : Long-term  
Limit value : 1,39 mg/kg  
Limit value type : DNEL worker (systemic)  
Exposure route : Inhalation  
Exposure frequency : Short-term  
Limit value : 19,6 mg/m<sup>3</sup>  
Limit value type : DNEL worker (systemic)  
Exposure route : Inhalation  
Exposure frequency : Long-term  
Limit value : 9,8 mg/m<sup>3</sup>

### PNEC

Hydroxyethylated 2-butyne-1,4-diol ; CAS No. : 32167-31-0

Limit value type : PNEC (Aquatic, freshwater)  
Limit value : 0,1 mg/l  
Limit value type : PNEC (Aquatic, intermittent release)  
Limit value : 1 mg/l  
Limit value type : PNEC (Aquatic, marine water)  
Limit value : 0,01 mg/l  
Limit value type : PNEC (Sediment, freshwater)  
Limit value : 0,37 mg/kg  
Limit value type : PNEC (Sediment, marine water)  
Limit value : 0,037 mg/kg  
Limit value type : PNEC (Soil)  
Limit value : 0,0153 mg/kg  
Limit value type : PNEC (Sewage treatment plant)  
Limit value : 100 mg/l

## 8.2 Exposure controls

### Appropriate engineering controls

Ensure adequate ventilation of the storage area.  
Technical measures and the application of suitable work processes have priority over personal protection equipment.

### Personal protection equipment

#### Eye/face protection

##### Suitable eye protection

Eye glasses with side protection goggles

##### Required properties

DIN EN 166

#### Skin protection

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## Hand protection

**Suitable gloves type :** Gloves with long cuffs

**Suitable material :** NBR (Nitrile rubber), 0,4mm, >8h; Butyl caoutchouc, 0,5mm, >8h; FKM (fluoro rubber), 0,7mm, >8h;

**Recommended glove articles :** Manufacturer KCL GmbH/Eichenzell-Germany; Ansell/Yarra City-Australia Or comparable articles from other companies.

**Additional hand protection measures :** Check leak tightness/impermeability prior to use.

**Remark :** Breakthrough times and swelling properties of the material must be taken into consideration. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Barrier creams are not substitutes for body protection.

## Body protection

Protective clothing.

**Suitable protective clothing :** Chemical protection clothing Chemical resistant safety shoes

**Required properties :** acid-resistant.

Protective clothing. : DIN EN 13034 DIN EN 14605

Chemical resistant safety shoes : DIN EN ISO 20345

**Remark :** Barrier creams are not substitutes for body protection.

## Respiratory protection

Usually no personal respiratory protection necessary. Respiratory protection necessary at: insufficient ventilation aerosol or mist formation. high concentrations spray application

### Suitable respiratory protection apparatus

Combination filtering device (EN 14387) Half-face mask (DIN EN 140) ABEK-P1

### Remark

Use only respiratory protection equipment with CE-symbol including four digit test number. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

## General information

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing immediately. Wash contaminated clothing prior to re-use. Wash hands before breaks and after work. Apply skin care products after work. Do not breathe gas/fumes/vapour/spray.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance :** liquid

**Colour :** colourless

**Odour :** odourless

### Safety characteristics

**Melting point/freezing point :** ( 1013 hPa ) approx. -10 °C

**Initial boiling point and boiling range :** ( 1013 hPa ) approx. 103 °C

**Decomposition temperature :** ( 1013 hPa ) not determined

**Flash point :** not applicable closed cup (EN ISO 3679)

**Auto-ignition temperature :** not determined

**Sustaining combustion** No UN Test L2:Sustained combustibility test

**Lower explosion limit :** not determined

**Upper explosion limit :** not determined

**Vapour pressure :** ( 50 °C ) < 3000 hPa

**Density :** ( 20 °C ) 1,21 g/cm<sup>3</sup> Pycnometer (DIN EN ISO 2811-1)

**Solvent separation test :** ( 20 °C ) < 3 % Test L1: Solvent separation test (UN)

**Water solubility** ( 20 °C ) miscible

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pH :	approx.	0	DIN 19268
log P O/W :		not determined	(Mixture)
Flow time :	( 23 °C )	15 s	ISO cup 4 mm (DIN EN ISO 2431)
Odour threshold :		not determined	
Vapourisation rate :		not determined	
VOC content-EC		0,4 Wt %	*
VOC content-EC		5 g/l	*
VOC-France		not applicable	Décret no 2011-321 du 23 mars 2011

(\* VOC-EC = „Volatile organic compound (VOC)“ means any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101,3 kPa; VOC-value in g/L)

### 9.2 Other information

None

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4 Conditions to avoid

Stable under recommended storage and handling conditions.

### 10.5 Incompatible materials

The product develops hydrogen in an aqueous solution in contact with metals.

### 10.6 Hazardous decomposition products

Does not decompose when used for intended uses.

## 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.

#### Acute oral toxicity

Parameter :	LD50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )
Exposure route :	Oral
Species :	Rat
Effective dose :	2600 mg/kg
Parameter :	LD50 ( Hydroxyethylated 2-butyne-1,4-diol ; CAS No. : 32167-31-0 )
Exposure route :	Oral
Species :	Rat
Effective dose :	300 - 2000 mg/kg

#### Acute dermal toxicity

Parameter :	LD50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	2740 mg/kg
Parameter :	LD50 ( Hydroxyethylated 2-butyne-1,4-diol ; CAS No. : 32167-31-0 )
Exposure route :	Dermal
Species :	Rat
Effective dose :	> 5000 mg/kg

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### **Specific effects (Longterm animal experiment)**

There are no data available on the preparation/mixture itself.

### **Corrosion**

Causes severe skin burns and eye damage.

### **Respiratory or skin sensitisation**

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

### **Repeated dose toxicity (subacute, subchronic, chronic)**

There are no data available on the preparation/mixture itself.

### **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

#### **Carcinogenicity**

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

#### **Germ cell mutagenicity**

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

#### **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.

## **11.2 Information on other hazards**

No information available.

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### **Aquatic toxicity**

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

#### **Acute (short-term) toxicity to aquatic algae and cyanobacteria**

Parameter :	EC50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )
Species :	Daphnia
Effective dose :	> 100 mg/l
Exposure time :	48 h
Method :	OECD 202

#### **Sewage treatment plant**

Observe local regulations concerning effluent treatment. Before discharge into sewage plants the product normally needs to be neutralised.

### **12.2 Persistence and degradability**

There are no data available on the preparation/mixture itself.

#### **Biodegradation**

The surfactants contained in this mixture comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

### **12.3 Bioaccumulative potential**

There are no data available on the preparation/mixture itself.

### **12.4 Mobility in soil**

There are no data available on the preparation/mixture itself.

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

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



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## 12.6 Endocrine disrupting properties

No information available.

## 12.7 Other adverse effects

There are no data available on the preparation/mixture itself.

## 12.8 Additional ecotoxicological information

### Additional information

The product has not been tested.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Dispose of waste according to applicable legislation.

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

#### Directive 2008/98/EC (Waste Framework Directive)

##### Before intended use

##### Waste codes/waste designations according to EWC/AVV

Waste code (EWC/AVV) : 06 01 06\* (other acids)

##### After intended use

Do not allow to enter into surface water or drains. Non-contaminated packages may be recycled. Packing which cannot be properly cleaned must be disposed of. Delivery to an approved waste disposal company.

##### Disposal operations

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of.

##### Waste codes/waste designations according to EWC/AVV

Waste code packaging: 15 01 10\*

### 13.2 Additional information

These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use.

## SECTION 14: Transport information

### 14.1 UN number

UN 1760

### 14.2 UN proper shipping name

#### Land transport (ADR/RID)

CORROSIVE LIQUID, N.O.S. ( PHOSPHORIC ACID )

#### Sea transport (IMDG)

CORROSIVE LIQUID, N.O.S. ( PHOSPHORIC ACID )

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

CORROSIVE LIQUID, N.O.S. ( PHOSPHORIC ACID )

### 14.3 Transport hazard class(es)

#### Land transport (ADR/RID)

**Class(es) :** 8  
**Classification code :** C9  
**Hazard identification number (Kemler No.) :** 80  
**Tunnel restriction code :** E  
**Special provisions :** LQ 1 | · E 2  
**Hazard label(s) :** 8

#### Sea transport (IMDG)

**Class(es) :** 8  
**EmS-No. :** F-A / S-B  
**Special provisions :** LQ 1 | · E 2 · IMDG-Code segregation group 1 - Acids  
**Hazard label(s) :** 8

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

Class(es) : 8  
Special provisions : E 2  
Hazard label(s) : 8

**14.4 Packing group**

II

**14.5 Environmental hazards**

Land transport (ADR/RID) : No  
Sea transport (IMDG) : No  
Air transport (ICAO-TI / IATA-DGR) : No

**14.6 Special precautions for user**

None

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

Not required.

**SECTION 15: Regulatory information**

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

**EU legislation**

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)  
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures (clp)  
DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on waste (2000/532/EC)  
EN 2:1992 (DIN EN 2:2005-01)

**Authorisations and/or restrictions on use**

**Restrictions on use**

Use restriction according to REACH annex XVII, no. : 3

**Restrictions of occupation**

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).  
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

**Other regulations (EU)**

Regulation (EC) No. 648/2004 (Detergents regulation)  
Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work. (Directive 2000/39/EC, Directive 2006/15/EC, Directive 2009/161/EC)  
REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the export and import of hazardous chemicals [PIC-Regulation]: Not listed.  
REGULATION (EU) No 98/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the marketing and use of explosives precursors: Not listed.

**Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer**

Not listed.

Contains the following substances that deplete the ozone layer: -

**Regulation (EC) No 850/2004 [POP-Regulation]**

Not listed.

Name of the persistent organic pollutant (POP): -

**National regulations**

Observe in addition any national regulations!

Germany:

TRGS 400 (Risk assessment for activities involving hazardous substances)  
TRGS 500 (Protective measures)  
TRGS 510 (Storage of hazardous substances in non-stationary containers)  
TRGS 555 (Working instruction and information for workers)

**Water hazard class (WGK)**

Classification according to AwSV - Class : 1 (Slightly hazardous to water)

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## Other regulations, restrictions and prohibition regulations

### Switzerland

#### VOCV-Regulation

Maximum VOC content (Switzerland) : < 3 Wt % according to VOCV

### Austria

#### Regulation on Flammable Liquids - VbF

VbF-Class : NU

## 15.2 Chemical safety assessment

For this substance/mixture a chemical safety assessment has not been carried out.

## 15.3 Additional information

## SECTION 16: Other information

### 16.1 Indication of changes

02. Label elements · 07. Hints on joint storage - Storage class

### 16.2 Abbreviations and acronyms

ABC-Pulver	Extinguishing powder for fire class A, B and C
ABEK-P1	combination filter
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AVV	Abfallverzeichnis-Verordnung (Waste Regulation)
AWSV	Ordinance on facilities for the handling of substances hazardous to water
BGR	BG rules and regulations
ca.	circa
CAS	Chemical Abstracts Service
CLP	classification, labelling and packaging
CMR	Carcinogen, mutagen or toxic for reproduction
DIN	German Institute for Standardization
DNEL	Derived No-Effect Level
EAK/EWC/EAC/CWR/CER	European Waste Catalogue
EC50 / CE50	Effective Concentration 50%
EG / EC / CE	European Community
EN	European Standard
EUH	supplemental hazard statement of the european union
GefStoffV	Gefahrstoffverordnung (Hazardous Substances Ordinance)
GHS / SGH	Globally Harmonised System
H-Sätze	hazard statements
IATA-DGR	International Air Transport Association-Dangerous Goods Regulations
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization-Technical Instructions
IMDG-Code	International Maritime Dangerous Goods Code
ISO	International Organization for Standardization
LC50 / CL50	Lethal Concentration 50%
LD50 / DL50	Lethal Dose 50%
log P O/W	Partition coefficient n-octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (marine pollution)
NOAEL (DSET)	No observed adverse effect level
NOEC (CSEO)	No observed effect concentration

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

( EN / D )

**Trade name :** Lithofin BERO

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Nr.	Number
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative and toxic
pH	Potentia hydrogenii
PIC	prior informed consent
PNEC	Predicted No-Effect Concentration
POP	Persistent organic pollutants
P-Sätze	precautionary statements
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	International Carriage of Dangerous Goods by Rail
STEL / LECT	short-term exposure limit
TRGS	Technische Regeln für Gefahrstoffe (Technical Rules for Hazardous Substances)
TWA / MPT	time-weighted average
UN/ONU	United Nations
VOC/COV/VOS/LZO	Volatile Organic Compound
VOCV	Ordinance on the Incentive Tax on Volatile Organic Compounds (SR 814.018)
vPvB	very persistent and very bioaccumulative
WGK	Wassergefährdungsklasse (Water hazard class)

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>. For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

## 16.3 Key literature references and sources for data

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL  
ECHA: Registered substances (<https://echa.europa.eu/information-on-chemicals/registered-substances>)  
REACH Article 59: Candidate List of substances of very high concern for Authorisation  
(<https://echa.europa.eu/candidate-list-table>)

## 16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard statements for physical hazards : On basis of test data.  
Hazard statements for health hazards : Calculation method.  
Hazard statements for environmental hazards : Calculation method.

## 16.5 Relevant H- and EUH-phrases (Number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.

## 16.6 Training advice

None

## 16.7 Additional information

None

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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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