

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

( EN / D )

**Trade name :** Lithofin BERO

**Revision date :** 11.01.2016  
**Print date :** 02.02.2016

**Version :** 1.0.0  
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**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 (manufacturer/importer/only representative/downstream user/distributor)**

**Distributor :** CDK Stone Pty Ltd  
**Street :** 4-6 Freighter Rd  
**Postal code/city :** AUS-Moorabbin, Victoria 3189  
**Telephone :** +61 3 8552-6000  
**Telefax :** +61 3 8552-6001  
**Contact :** Technical Department  
E-mail:  
  
Emergency telephone number:  
+61 (0)3 8552-6000  
(Only available during office hours)

**Supplier :** Lithofin AG  
**Street :** Heinrich-Otto-Str. 36  
**Postal code/city :** 73240 Wendlingen  
**Telephone :** +49 (0)7024 9403-0  
**Telefax :** +49 (0)7024 9403-40

**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]**

Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.  
Skin Corr. 1B ; H314 - Skin corrosion/irritation : Category 1B ; Causes severe skin burns and eye damage.  
Met. Corr. 1 ; H290 - Corrosive to metals : Category 1 ; May be corrosive to metals.

**Additional information**

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

**Remark**

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

**2.2 Label elements**

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

**Hazard pictograms**



Corrosion (GHS05)

**Signal word**

Danger

**Hazard components for labelling**

PHOSPHORIC ACID 34 % ; CAS No. : 7664-38-2

**Hazard statements**

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

**Precautionary statements**

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|   |  |
|---|--|
| P102  | Keep out of reach of children.   |
| P234  | Keep only in original container.   |
| 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.   |
| <b>Special rules for supplemental label elements for certain mixtures</b> |  |
| EUH208  | Contains 2-Butyne-1,4-diol ethoxylate. May produce an allergic reaction.   |

### 2.3 Other hazards

#### Adverse human health effects and symptoms

Due to its pH value (see section 9), irritation of the skin and eyes cannot be ruled out.

### 2.4 Additional information

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

## SECTION 3: Composition / information on ingredients

### 3.2 Mixtures

#### Hazardous ingredients

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

Weight fraction :  $\geq 30$  - < 35 %

Classification 1272/2008 [CLP] : Skin Corr. 1B ; H314 Eye Dam. 1 ; H318

2-Butyne-1,4-diol ethoxylate ; REACH registration 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

#### Additional information

All ingredients of this mixture are (pre)registered according to REACH regulation.

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

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.

#### Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. 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

No information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

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**Suitable extinguishing media**

Water alcohol resistant foam ABC-powder Carbon dioxide (CO<sub>2</sub>) Water spray

**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**

Suitable material for taking up: Universal binder

**Other information**

Clear spills immediately.

**6.4 Reference to other sections**

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

**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.

**Measures to prevent fire**

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

**Fire class :** -

**Shake before use** nein

**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.

**Hints on joint storage**

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

**Protect from frost** nein

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

**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.

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## 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(l)  
Remark : Y  
Version : 02.04.2014  
Limit value type (country of origin) : STEL ( EC )  
Limit value : 2 mg/m<sup>3</sup>  
Version : 08.06.2000  
Limit value type (country of origin) : TWA ( EC )  
Limit value : 1 mg/m<sup>3</sup>  
Version : 08.06.2000

### 8.2 Exposure controls

#### Personal protection equipment

##### Eye/face protection

###### Suitable eye protection

Eye glasses with side protection goggles

###### Required properties

DIN EN 166

##### Skin protection

###### 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.

###### Body protection

Protective clothing.

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

**Required properties** : acid-resistant.

**Recommended protective clothing articles** : DIN EN ISO 20345 DIN EN 13034 DIN EN 14605 DIN EN 14404

**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 health and safety measures

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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance** : liquid

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**Colour :** colourless

**Odour :** odourless

**Safety relevant basis data**

|  |              |     |                |                   |  |
|--|--------------|-----|----------------|-------------------|--|
| <b>Freezing point :</b>                          | ( 1013 hPa ) | ca. | -10            | °C                |  |
| <b>Initial boiling point and boiling range :</b> | ( 1013 hPa ) | ca. | 103            | °C                |  |
| <b>Decomposition temperature :</b>               | ( 1013 hPa ) |     | not determined |                   |  |
| <b>Flash point :</b>                             |              |     | not applicable |                   | closed cup                               |
| <b>Ignition temperature :</b>                    |              |     | not determined |                   |  |
| <b>Sustaining combustion</b>                     |              |     | No             |                   | UN Test L2:Sustained combustibility test |
| <b>Lower explosion limit :</b>                   |              |     | not determined |                   |  |
| <b>Upper explosion limit :</b>                   |              |     | not determined |                   |  |
| <b>Vapour pressure :</b>                         | ( 50 °C )    | <   | 3000           | hPa               |  |
| <b>Density :</b>                                 | ( 20 °C )    | ca. | 1,2            | g/cm <sup>3</sup> | Pyknometer                               |
| <b>Solvent separation test :</b>                 | ( 20 °C )    | <   | 3              | %                 |  |
| <b>Water solubility</b>                          | ( 20 °C )    |     | miscible       |                   |  |
| <b>pH :</b>                                      |              | ca. | 0              |                   |  |
| <b>log P O/W :</b>                               |              |     | not determined |                   |  |
| <b>Flow time :</b>                               | ( 23 °C )    | <   | 15             | s                 | ISO cup 4 mm                             |
| <b>Odour threshold :</b>                         |              |     | not determined |                   |  |
| <b>Vapourisation rate :</b>                      |              |     | not determined |                   |  |
| <b>VOC-FR</b>                                    |              |     | not applicable |                   |  |

**9.2 Other information**

None

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

No information available.

**10.2 Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3 Possibility of hazardous reactions**

No hazardous reaction when handled and stored according to provisions.

**10.4 Conditions to avoid**

No hazardous reaction when handled and stored according to provisions.

**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 toxicological effects**

**Acute effects**

**Acute oral toxicity**

Parameter : LD50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )  
Exposure route : Oral  
Species : Rat  
Effective dose : 1530 mg/kg

**Acute dermal toxicity**

Parameter : LD50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : 2740 mg/kg

**Specific symptoms in animal studies**

No data available

**Irritant and corrosive effects**

**Assessment/classification**

Causes serious eye damage. Causes severe burns.

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

#### Carcinogenicity

No indication of human carcinogenicity.

#### Germ cell mutagenicity

##### In vivo mutagenicity

##### Other information

No experimental indications of in vivo mutagenicity exist.

#### Human toxicological data

##### Other information

No indications of human germ cell mutagenicity exist.

#### Reproductive toxicity

##### Practical experience/human evidence

No indications of human reproductive toxicity exist.

#### Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity

##### Acute (short-term) fish toxicity

Parameter : LC50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )  
Species : Fish  
Effective dose : 75,1 mg/l  
Exposure time : 96 h

##### Acute (short-term) algae toxicity

Parameter : IC50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )  
Species : Algae  
Effective dose : > 100 mg/l  
Exposure time : 72 h

#### Effects in sewage plants

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

### 12.2 Persistence and degradability

No data available

#### Biodegradation

The surfactants contained in this preparation 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

No data available

### 12.4 Mobility in soil

No data available

### 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.

### 12.6 Other adverse effects

No data available

### 12.7 Additional ecotoxicological information

#### Additional information

The product has not been tested.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Dispose according to legislation.

#### Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

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Waste code (91/689/EEC) : 06 01 06\*

**Waste treatment options**

**Appropriate disposal / Package**

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

**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 11 · E 2  
**Hazard label(s) :** 8

**Sea transport (IMDG)**

**Class(es) :** 8  
**EmS-No. :** F-A / S-B  
**Special provisions :** LQ 11 · E 2  
**Hazard label(s) :** 8

**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

**SECTION 15: Regulatory information**

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

**EU legislation**

**Other regulations (EU)**

Regulation (EC) No. 648/2004 (Detergents regulation)

**National regulations**

Observe in addition any national regulations!

**Water hazard class (WGK)**

Class : 1 (Slightly hazardous to water) Classification according to VwVwS

**Other regulations, restrictions and prohibition regulations**

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**VOCV-Regulation (CH)**

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

**15.2 Chemical Safety Assessment**

No information available.

**SECTION 16: Other information**

**16.1 Indication of changes**

02. Classification of the substance or mixture · 02. Label elements · 02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] · 02. Special rules for supplemental label elements for certain mixtures · 03. Hazardous ingredients · 15. Technische Anleitung Luft (TA-Luft)

**16.2 Abbreviations and acronyms**

None

**16.3 Key literature references and sources for data**

None

**16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]**

No information available.

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

|      |  |
|------|--|
| 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

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.