

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

hebrochemie



Impulse für Mensch und Umwelt

B006-K60 hebro®HB-160 E

Version: 1.11

Revision Date 22.08.2014

Print Date 24.12.2014

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

1.1 Product identifier

Trade name : B006-K60 hebro®HB-160 E

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

Use of the Sub-
stance/Mixture : Cleaner (decalcifying)

1.3 Details of the supplier of the safety data sheet

Company : hebro chemie- ZN der Rockwood Specialties Group
GmbH
Rostocker Str. 40
41199 Mönchengladbach

Contact person : Wolfgang Schaffers
Telephone : +49 (0) 2166 6009-0
Telefax : +49 (0) 2166 6009-99

Contact person product safety : Abteilung Produktsicherheit
E-mail address : info-produktsicherheit@gmx.de

1.4 Emergency telephone number

: Giftinformationszentrum Erfurt:
+49 (0) 361 730 730

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Corrosive to metals, Category 1 H290: May be corrosive to metals.
Skin corrosion, Category 1A H314: Causes severe skin burns and eye damage.

Classification (67/548/EEC, 1999/45/EC)

Irritant R36/38: Irritating to eyes and skin.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms

:



Signal word

: Danger

Hazard statements

: H290
H314

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

Precautionary statements

: **Prevention:**
P280

Wear protective gloves/ protective clothing/
eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do
NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immedi-
ately all contaminated clothing. Rinse skin
with water/shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh
air and keep comfortable for breathing. Im-
mediately call a POISON CENTER or doc-
tor/ physician.

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

P310 Immediately call a POISON CENTER or
doctor/ physician.

Hazardous components which must be listed on the label:

- 64-18-6 Formic Acid

Labelling according to EC Directives (1999/45/EC)

Hazard pictograms

:



Irritant

R-phrase(s)

: R36/38

Irritating to eyes and skin.

S-phrase(s)

: S26

In case of contact with eyes, rinse immedi-
ately with plenty of water and seek medical
advice.

S36/37/39

Wear suitable protective clothing, gloves

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S45

and eye/face protection.

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

S60

This material and its container must be disposed of as hazardous waste.

Hazardous components which must be listed on the label:

- 7664-38-2 Orthophosphoric acid
- 64-18-6 Formic Acid

2.3 Other hazards

The information required is contained in this Material Safety Data Sheet.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical nature : Water based acid cleaner with anionic and nonionic surfactants.

Hazardous components

| Chemical Name | CAS-No. EC-No. Registration number | Classification (67/548/EEC) | Classification (REGULATION (EC) No 1272/2008) | Concentration [%] |
|--------------------------|--|--------------------------------|--|----------------------|
| Orthophosphoric acid | 7664-38-2 231-633-2 01-2119485924-24 | C; R34 Nota B | Met. Corr. 1; H290 Skin Corr. 1B; H314 | >= 10 - < 25 |
| Alkyl alcohol ethoxylate | 69011-36-5 | Xi; Xi; R41 | Eye Dam. 1; H318 | >= 10 - < 25 |
| Formic Acid | 64-18-6 200-579-1 01-2119491174-37 | C; R35 R10 | Flam. Liq. 3; H226 Skin Corr. 1A; H314 | >= 2.5 - < 5 |
| Phosphoric acid, 1- | 76483-21-1 | C; R34 | Skin Corr. 1B; | >= 2.5 - < 5 |

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| | | | | |
|-------------------|-----------|--|------|--|
| methylethyl ester | 278-477-1 | | H314 | |
|-------------------|-----------|--|------|--|

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

For the full text of the Notas mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : No special precautions required.
- In case of skin contact : After contact with skin, wash immediately with plenty of water.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.
If eye irritation persists, consult a specialist.
- If swallowed : Call a physician immediately.
Keep patient warm and at rest.
Immediately give large quantities of water to drink.
Prevent vomiting if possible.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.
- Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : The product itself does not burn.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : No information available.

5.3 Advice for firefighters

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Special protective equipment for firefighters : No special precautions required.
Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Handle in accordance with good industrial hygiene and safety practice.

6.2 Environmental precautions

Environmental precautions : Inform the relevant authorities if it enters sewers, aquatic environment or soil.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.
Contaminated surfaces will be extremely slippery.

6.4 Reference to other sections

See chapter 8 and 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : No special precautions required.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No special storage conditions required.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Further information on storage conditions : Protect from frost.
Keep at temperatures between 5°C and 40°C.

Advice on common storage : No materials to be especially mentioned.

7.3 Specific end use(s)

Specific use(s) : Cleaner (decalcifying)

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Components | CAS-No. | Value | Control parameters | Update | Basis |
|----------------------|-----------|--|--------------------------------|------------|------------|
| Orthophosphoric acid | 7664-38-2 | TWA | 1 mg/m ³ | 2009-12-19 | 2000/39/EC |
| Further information | : | Indicative | | | |
| | 7664-38-2 | STEL | 2 mg/m ³ | 2009-12-19 | 2000/39/EC |
| Further information | : | Indicative | | | |
| | 7664-38-2 | TWA | 1 mg/m ³ | 2005-04-06 | GB EH40 |
| | 7664-38-2 | STEL | 2 mg/m ³ | 2005-04-06 | GB EH40 |
| Formic Acid | 64-18-6 | TWA | 5 ppm 9 mg/m ³ | 2009-12-19 | 2006/15/EC |
| Further information | : | Indicative | | | |
| | 64-18-6 | TWA | 5 ppm 9.6 mg/m ³ | 2005-04-06 | GB EH40 |
| Further information | : | 2: Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used | | | |

DNEL/DMEL

Orthophosphoric acid : End Use: DNEL, Workers, Industrial use
Exposure routes: Inhalation
Potential health effects: Long-term local effects
Exposure time: 8 h
Value: 2.92 mg/m³

Formic Acid : End Use: DNEL, Workers

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Exposure routes: Inhalation
Potential health effects: Long-term local effects
Value: 9.5 mg/m³

End Use: DNEL, Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 9.5 mg/m³

PNEC

Formic Acid

: Fresh water
Value: 2 mg/l

Marine water
Value: 0.2 mg/l

Behaviour in waste water treatment plants
Value: 7.2 mg/l

Fresh water sediment
Value: 13.4 mg/kg

Marine sediment
Value: 1.34 mg/kg

Soil
Value: 1.5 mg/kg

8.2 Exposure controls

Personal protective equipment

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection : Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

Eye protection : not required

Skin and body protection : not required

Protective measures : Follow the skin protection plan.

Environmental exposure controls

General advice : Inform the relevant authorities if it enters sewers, aquatic environment or soil.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|-----------------------------|--|
| Appearance | : liquid |
| Colour | : blue |
| Odour | : stinging |
| Flash point | : > 100 °C |
| pH | : 0.5 at 20 °C (undiluted) |
| Boiling point/boiling range | : > 100 °C Method: DIN 51751 |
| Vapour pressure | : 23 hPa at 20 °C Information taken from reference works and the literature. |
| Density | : 1.17 g/cm ³ at 20 °C Method: DIN 51757 |
| Water solubility | : 1,000 g/l completely soluble |

9.2 Other information

Explosivity : No data available

Directive 1999/13/EC on the limitation of emissions of volatile organic compounds : no VOC duties

SECTION 10: Stability and reactivity

10.1 Reactivity

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No hazards to be specially mentioned.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid : None known.

10.6 Hazardous decomposition products

Risk of decomposition. : No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Orthophosphoric acid : LD50: 2,600 mg/kg
Species: Rat
Method: OECD Test Guideline 423

Formic Acid

: LD50: 730 mg/kg
Species: Rat
Method: OECD Test Guideline 401

Phosphoric acid, 1-methylethyl ester

: LD50: 940 mg/kg
Species: Rat
Test substance: Read-across (Analogy)

Skin corrosion/irritation

Skin irritation

: Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.
May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Eye irritation

: The liquid splashed in the eyes may cause irritation and reversible damage.

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Respiratory or skin sensitisation

Sensitisation : This information is not available.

Carcinogenicity

Remarks : Not classifiable as a human carcinogen.

Target Organ Systemic Toxicant - Repeated exposure

Orthophosphoric acid : Species: Rat
Application Route: Oral
NOAEL: <= 500 mg/kg bw/d
Method: OECD Test Guideline 422

Further information : Health injuries are not known or expected under normal use.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish : No data available

Toxicity to fish
Formic Acid : static test LC50: > 46 - < 100 mg/l
Exposure time: 96 h
Species: Leuciscus idus (Golden orfe)

Toxicity to daphnia and other aquatic invertebrates
Orthophosphoric acid : EC50: > 100 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 202

Formic Acid : EC50: 34.2 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

static test NOEC: >= 102 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

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Toxicity to algae
Orthophosphoric acid : EC50: > 100 mg/l
Exposure time: 72 h
Species: *Desmodesmus subspicatus* (green algae)
Method: OECD Test Guideline 201

NOEC: 100 mg/l
Exposure time: 72 h
Species: *Desmodesmus subspicatus* (green algae)
Method: OECD Test Guideline 201

Formic Acid : static test EC50: 32.64 mg/l
Exposure time: 72 h
Species: *Selenastrum capricornutum* (green algae)

Toxicity to bacteria
Formic Acid : EC50: 46.7 mg/l
Exposure time: 17 h
Species: *Pseudomonas putida*

12.2 Persistence and degradability

Biodegradability : No data available

12.3 Bioaccumulative potential

Bioaccumulation : No data available

12.4 Mobility in soil

Mobility : No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Biochemical Oxygen Demand (BOD)
Formic Acid : 86 mg/g

Chemical Oxygen Demand (COD)
Formic Acid : 348 mg/g

Additional ecological information : Do not flush into surface water or sanitary sewer system.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Product : Do not let product enter drains.
Do not dispose of with domestic refuse.
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.
- Packaging : Do not dispose of with domestic refuse.
- Contaminated packaging : Dispose of in accordance with local regulations.
- Waste Code : 110105 pickling acids

SECTION 14: Transport information

ADR

- UN number : 1760
UN proper shipping name : CORROSIVE LIQUID, N.O.S. Formic Acid, Orthophosphoric acid
Transport hazard class(es) : 8
Packing group : II
Classification Code : C9
Hazard Identification Number : 80
Limited Quantity (LQ) Inner : 1.00 L
Packaging
Maximum quantity : 30.00 KG
Labels : 8
Tunnel restriction code : (E)
Environmentally hazardous : no

IATA

- UN number : 1760
Description of the goods : Corrosive liquid, n.o.s. Formic Acid, Orthophosphoric acid
Class : 8
Packing group : II
Labels : 8

IATA_C

- Packing instruction (cargo aircraft) : 855
Packing instruction (LQ) : Y840
Maximum quantity : 30.00 L
Environmentally hazardous : no

IATA_P

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Packing instruction (passenger aircraft) : 851
Packing instruction (LQ) : Y840
Maximum quantity : 1.00 L
Environmentally hazardous : no

IMDG

UN number : 1760
Description of the goods : CORROSIVE LIQUID, N.O.S. Formic Acid, Orthophosphoric acid
Class : 8
Packing group : II
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B
Marine pollutant : no

Acids

Clear of living quarters.

Acids

Clear of living quarters.

RID

UN number : 1760
Description of the goods : CORROSIVE LIQUID, N.O.S. Formic Acid , Orthophosphoric acid
Transport hazard class(es) : 8
Packing group : II
Classification Code : C9
Hazard Identification Number : 80
Labels : 8
Limited Quantity (LQ) Inner : 1.00 L
Packaging
Maximum quantity : 30.00 KG
Environmentally hazardous : no

SECTION 15: Regulatory information

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

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.
Regional or national implementations of GHS may not implement all hazard classes and categories.

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15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3

| | |
|--------|---------------------------------|
| R10 | Flammable. |
| R34 | Causes burns. |
| R35 | Causes severe burns. |
| R36/38 | Irritating to eyes and skin. |
| R41 | Risk of serious damage to eyes. |

Full text of H-Statements referred to under sections 2 and 3.

| | |
|------|--|
| H226 | Flammable liquid and vapour. |
| H290 | May be corrosive to metals. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |

Full text of Notas referred to under section 3

| | |
|--------|--|
| Nota B | Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different labelling since the hazards vary at different concentrations. In Annex I entries with Note B have a general designation of the following type: nitric acid ...%. In this case the manufacturer or any other person who markets such a substance in aqueous solution must state the percentage concentration of the solution on the label. Example: nitric acid 45 %. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis. The use of additional data (e.g. specific gravity, degrees Baumé) or descriptive phrases (e.g. fuming or glacial) is permissible. |
|--------|--|

Further information

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.