

| Version: 2.11 | Revision Date: 21.08.2024 | Print Date: 22.08.2024 |
|---------------------------------------|--|------------------------|
| SECTION 1: Identification of the | substance/mixture and of the con | າpany/undertaking |
| 1.1 Product identifier | | |
| Trade name | XB017-K10 hebro®HB-50 UL | |
| 1.2 Relevant identified uses of the | substance or mixture and uses advise | d against |
| | Acid cleaning concentrate for sanitation | - |
| 1.3 Details of the supplier of the sa | fety data sheet | |
| Company | hebro chemie- ZN der Rockwo GmbH Rostocker Str. 40 41199 Mönchengladbach | od Specialties Group |
| Contact person | : Zentrale hebro chemie | |
| Telephone Telefax | : +49 (0) 2166 6009-0 : +49 (0) 2166 6009-99 | |
| Contact person product safety | Abteilung Produktsicherheit | |
| Telephone | : +49(0)2166 6009-311 | |
| E-mail address | : msds.de@hebro-chemie.de | |
| 1.4 Emergency telephone number | | |
| | : Giftinformationszentrum Erfurt: +49 (0) 361 730 730 | |
| SECTION 2: Hazards identificati | on | |

2.1 Classification of the substance or mixture

2.2

| Classification (REGULAT) Corrosive to metals, Catego | | (EC) No 127 | 2/2008) H290: May be corrosive to metals. |
|--|------|-------------|---|
| Specific target organ toxicity - single exposure, Category 3, Respiratory system | | • | H335: May cause respiratory irritation. |
| Label elements | | | |
| Labelling (REGULATION (| (EC) | No 1272/20 | 08) |
| Hazard pictograms | : | L I | |
| Signal word | : | Warning | |
| Hazard statements | : | H290 | May be corrosive to metals. |



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| | H335 | May cause respiratory irrit | ation. |
| Precautionary statements : | Prevention |): | |
| , | P234 P261 | Keep only in original packa Avoid breathing mist or va | |
| | Response: | : | |
| | P304 + P34 | 40 + P312 IF INHALED: R air and keep comfortable f POISON CENTER/ doctor | or breathing. Call a if you feel unwell. |
| | _ | Absorb spillage to prevent | material damage. |
| | Storage: | | |
| | P403 + P23 | 33 Store in a well-ventilate tightly closed. | ed place. Keep container |
| | Disposal: | | |
| | P501 | Dispose of contents/ conta waste disposal plant. | ainer to an approved |

Hazardous components which must be listed on the label:

Hydrochloric acid

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f).

Toxicological information: This substance/mixture does not contain components considered to have endocrine disrupting properties for human health according to UK REACH Article 57(f),

SECTION 3: Composition/information on ingredients

3.2 Mixtures

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

Components

| Chemical name | CAS-No. EC-No. Index-No. Registration number | Classification | Concentration (% w/w) |
|-------------------|--|--|--------------------------|
| Hydrochloric acid | 7647-01-0 231-595-7 017-002-01-X 01-2119484862-27 | M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1 | >= 10 - < 25 |



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| | | specific concentration limit Skin Corr. 1B; H314 >= 25 % Skin Irrit. 2; H315 10 - $< 25 \%$ Eye Irrit. 2; H319 10 - $< 25 \%$ STOT SE 3; H335 >= 10 % Skin Irrit. 2; H315 10 - $< 25 \%$ Eye Irrit. 2; H319 10 - $< 25 \%$ | |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

| General advice | : | If symptoms persist, call a physician. |
|-------------------------|---|---|
| If inhaled | : | No special precautions required. |
| In case of skin contact | : | After contact with skin, wash immediately with plenty of water. Take off all contaminated clothing immediately. |
| In case of eye contact | : | In case of eye contact, remove contact lens and rinse imme- diately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately. |
| If swallowed | : | Immediately give large quantities of water to drink. Prevent vomiting if possible. |

4.2 Most important symptoms and effects, both acute and delayed

Risks : May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1 Extinguishing media

| Suitable extinguishing media | | Alcohol-resistant foam Carbon dioxide (CO2) Dry powder Water spray jet |
|--------------------------------|---|---|
| Unsuitable extinguishing media | : | High volume water jet |



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|---|---|--|-------------------------------|--|--|--|
| 5.2 Special hazards arising from the substance or mixture | | | | | | |
| Specific hazards during fire- fighting | : | Combustion may cause: | | | | |
| Hazardous combustion prod- ucts | : | Carbon oxides | | | | |
| 5.3 Advice for firefighters | | | | | | |
| Special protective equipment for firefighters | : | Wear self-contained breathing appar essary. | atus for firefighting if nec- | | | |
| Further information | : | Fire residues and contaminated fire e be disposed of in accordance with lo | | | | |

SECTION 6: Accidental release measures

| 6.1 Personal precautions, protect | e equipment and emergency procedures | |
|-----------------------------------|---|-------|
| Personal precautions | Handle in accordance with good industrial hygiene and sa practice. | lfety |
| 6.2 Environmental precautions | | |
| Environmental precautions | Inform the relevant authorities if it enters sewers, aquatic ronment or soil. | envi- |
| 6.3 Methods and material for cont | inment and cleaning up | |
| Methods for cleaning up | Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculit and transfer to a container for disposal according to local national regulations (see section 13). Keep in suitable, closed containers for disposal. | te) |

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

| Advice on safe handling | : | Avoid contact with skin and eyes. Ensure adequate ventilation. Avoid formation of aerosol. For personal protection see section 8. Have eye wash bottle or eye rinse ready at the work place. |
|---|---|--|
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection. |

7.2 Conditions for safe storage, including any incompatibilities

| Requirements for storage | : | Containers which are opened must be carefully resealed and |
|--------------------------|---|---|
| areas and containers | | kept upright to prevent leakage. Keep only in the original con- |



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| | | tainer at temperature not exceeding 50°C. | |
| Further information on stor- age conditions | : | Protect from frost, heat and sunlight. | |
| Recommended storage tem- perature | : | 5 - 40 °C | |
| 7.3 Specific end use(s) Specific use(s) | : | Acid cleaning concentrate for sanitation | on. |

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form | Control parameters | Basis |
|-------------------|-----------|------------------|--------------------|---------|
| | | of exposure) | | |
| Hydrochloric acid | 7647-01-0 | TWA (Gas and | 1 ppm | GB EH40 |
| | | aerosol mists) | 2 mg/m3 | |
| | | STEL (Gas and | 5 ppm | GB EH40 |
| | | aerosol mists) | 8 mg/m3 | |

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

| Substance name | End Use | Exposure routes | Potential health ef- fects | Value |
|-------------------|---------|-----------------|-------------------------------|----------|
| Hydrochloric acid | Workers | Inhalation | Long-term local ef- fects | 8 mg/m3 |
| | Workers | Inhalation | Acute local effects | 15 mg/m3 |

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

| Substance name | Environmental Compartment | Value |
|-------------------|---------------------------|---------|
| Hydrochloric acid | Fresh water | 36 µg/L |
| | Marine water | 36 µg/L |
| | Sewage treatment plant | 36 µg/L |

8.2 Exposure controls

Personal protective equipment

| Eye/face protection | : | Face-shield Safety glasses with side-shields conforming to EN166 |
|---|---|---|
| Hand protection Material Break through time Protective index | : | Protective gloves complying with EN 374. > 60 min Class 3 |
| Material Glove thickness | : | Nitrile rubber 0.4 mm |
| Material Glove thickness | : | butyl-rubber 0.5 mm |
| Remarks | : | The choice of an appropriate glove does not only depend on |



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| | | its material but also on other qual from one producer to the other. The can be obtained from the protective has to be observed. | he exact break through time |
| Skin and body protection | : | Chemical resistant protective cloth 13034 (Type 6) Work uniform or laboratory coat. | hing according to DIN EN |
| Respiratory protection | : | If product forms vapours or aerosetion. | ols wear breathing protec- |
| Filter type | : | ABEK-filter | |
| Protective measures | : | When using do not eat, drink or se Wash hands before breaks and a Follow the skin protection plan. | |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| Physical state | | liquid |
|---|---|--------------------------------------|
| Colour | : | natural colour |
| Odour | : | stinging |
| Melting point/freezing point | : | not determined |
| Boiling point/boiling range | : | 100 °C Method: DIN 51751 |
| Upper explosion limit / Upper flammability limit | : | not determined |
| Lower explosion limit / Lower flammability limit | : | not determined |
| Flash point | : | > 99 °C |
| Auto-ignition temperature | : | not determined |
| рН | : | 1.5 (20 °C) Concentration: 10 g/l |
| Viscosity | | |

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878 XB017-K10 hebro®HB-50 UL



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| Viscosity, kinematic | : | similar to water | |
| Flow time | : | < 30 sec. Cross section: 3 mm | |
| Solubility(ies) Water solubility | : | 1,000 g/l completely soluble | |
| Partition coefficient: n- octanol/water | : | Not applicable | |
| Vapour pressure | : | 23.0 hPa (20 °C) Information taken from reference work | s and the literature. |
| Density | : | 1.09 g/cm³ (20 °C) Method: DIN 51757 | |
| Relative vapour density | : | not determined | |
| 9.2 Other information | | | |
| Explosives | : | No data available | |
| Substances and mixtures, which in contact with water, emit flammable gases | : | No data available | |
| Metal corrosion rate | : | Corrosive to metals | |

SECTION 10: Stability and reactivity

| 10.1 Reactivity No decomposition if stored and a | applied as directed. |
|---|---|
| 10.2 Chemical stability The product is chemically stable. | |
| 10.3 Possibility of hazardous reacti | ions |
| 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. |



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| | | | |
| 10.6 Hazardous decomposition pr | ducts | | |
| Carbon dioxide (CO2) Carbon monoxide | | | |
| Smoke | | | |
| Hazardous decomposition products | No decompositio | n if stored and ap | oplied as directed. |
| F | | | |
| SECTION 11: Toxicological info | rmation | | |
| 11.1 Information on hazard classe | as defined in Reg | ulation (EC) No | 1272/2008 |
| Acute toxicity | | | |
| Not classified due to lack of dat | | | |
| Components: | | | |
| Hydrochloric acid: | | | |
| Acute dermal toxicity | LD50 (Rabbit): > { | 5,010 mg/kg | |
| Skin corrosion/irritation | | | |
| Not classified due to lack of dat | | | |
| Serious eye damage/eye irrita | | | |
| Not classified due to lack of dat | | | |
| Respiratory or skin sensitisat | on | | |
| Skin sensitisation | | | |
| Not classified due to lack of dat | | | |
| Respiratory sensitisation | | | |
| Not classified due to lack of dat | | | |
| Germ cell mutagenicity | | | |
| Not classified due to lack of dat | | | |
| Components: | | | |
| Hydrochloric acid: | | | |
| Genotoxicity in vitro | Test Type: Ames Remarks: In vitro | | w mutagenic effects |
| Germ cell mutagenicity- As- sessment | Not mutagenic in | Ames Test | |
| Carcinogenicity Based on available data, the cla | sification criteria an | e not met | |
| | | | |
| <u>Product:</u> Carcinogenicity - Assess- | Not aloogifichle or | o human aarain | |



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| Components: | | |
| Hydrochloric acid: Carcinogenicity - Assess- : ment | Carcinogenicity classification not possi | ble from current data. |
| Reproductive toxicity Not classified due to lack of data. | | |
| Components: | | |
| Hydrochloric acid: Reproductive toxicity - As- : sessment | Fertility classification not possible from Embryotoxicity classification not possib | |
| STOT - single exposure May cause respiratory irritation. | | |
| Product: Assessment : | May cause respiratory irritation. | |
| STOT - repeated exposure Not classified due to lack of data. | | |
| Aspiration toxicity Not classified due to lack of data. | | |
| 11.2 Information on other hazards | | |
| Endocrine disrupting properties | S | |
| Product: Assessment : | This substance/mixture does not conta ered to have endocrine disrupting prop according to UK REACH Article 57(f), | • |
| Further information | | |
| Product: Remarks : | Health injuries are not known or expec | ted under normal use. |
| SECTION 12: Ecological informa | tion | |
| 12.1 Toxicity | | |

| Components: | | |
|---|---|---|
| Hydrochloric acid: | | |
| Toxicity to fish | : | LC50 (Lepomis macrochirus (Bluegill sunfish)): 20.5 mg/l Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 0.45 mg/l Exposure time: 48 h |



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| | | Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : | EC50 (Chlorella vulgaris (Fresh water algae)): 0.73 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 |
| M-Factor (Acute aquatic tox- icity) | : | 1 |
| Toxicity to microorganisms | : | EC50 (activated sludge): 0.23 mg/l Method: OECD Test Guideline 209 |
| M-Factor (Chronic aquatic toxicity) | : | 1 |
| 12.2 Persistence and degradabi | lity | |
| Product: | | |
| Biodegradability | : | Remarks: No data available |
| 12.3 Bioaccumulative potential | | |
| Product: Bioaccumulation | : | Remarks: No data available |
| 12.4 Mobility in soil | | |
| <u>Product:</u> Mobility | : | Remarks: No data available |
| 12.5 Results of PBT and vPvB a | sse | ssment |
| Product: | | |
| Assessment | : | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. |
| 12.6 Endocrine disrupting prope | ertie | 9S |
| Product: | | |
| Assessment | : | This substance/mixture does not contain components consid- ered to have endocrine disrupting properties for environment according to UK REACH Article 57(f). |
| 12.7 Other adverse effects | | |
| Product: Additional ecological infor- mation | : | Do not flush into surface water or sanitary sewer system. |



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| SECTION 13: Disposal consi | derations | |
| 13.1 Waste treatment methods | | |
| Product | : Do not let product enter drains. Do not dispose of with domestic Waste codes should be assigne discussion with the waste dispos | d by the user, preferably in |
| Contaminated packaging | If recycling is not practicable, dis local regulations. Since emptied containers retain and/or liquid) follow all MSDS/la emptied. | product residues (vapour |
| Waste Code | : Waste codes should be assigne | d by the user, preferably in |

discussion with the waste disposal authorities.

SECTION 14: Transport information

14.1 UN number or ID number

| ADR | : | UN 1760 | |
|---|---|--|------------------|
| RID | : | UN 1760 | |
| IMDG | : | UN 1760 | |
| ΙΑΤΑ | : | UN 1760 | |
| 14.2 UN proper shipping name | | | |
| ADR | : | CORROSIVE LIQUID (Hydrochloric acid) | , N.O.S. |
| RID | : | CORROSIVE LIQUID (Hydrochloric acid) | , N.O.S. |
| IMDG | : | CORROSIVE LIQUID (Hydrochloric acid) | , N.O.S. |
| ΙΑΤΑ | : | Corrosive liquid, n.o.s (Hydrochloric acid) | |
| 14.3 Transport hazard class(es) | | | |
| | | Class | Subsidiary risks |
| ADR | : | 8 | |
| RID | : | 8 | |
| IMDG | : | 8 | |
| ΙΑΤΑ | : | 8 | |
| 14.4 Packing group | | | |
| ADR Packing group Classification Code | : | ll C9 | |



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| Hazard Identification Number Labels Tunnel restriction code | : | 80 8 (E) | |
| RID Packing group Classification Code Hazard Identification Number Labels | : : : | II C9 80 8 | |
| IMDG Packing group Labels EmS Code Remarks | : : | II 8 F-A, S-B Acids, Clear of living quarters. | |
| IATA (Cargo) Packing instruction (cargo aircraft) Packing instruction (LQ) Packing group Labels | : | 855 Y840 II Corrosives | |
| IATA_P (Passenger) Packing instruction (passen- ger aircraft) Packing instruction (LQ) Packing group Labels | : | 851 Y840 II Corrosives | |
| 14.5 Environmental hazards | | | |
| ADR Environmentally hazardous | : | no | |
| RID Environmentally hazardous | : | no | |
| IMDG Marine pollutant | : | no | |

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mix-ture

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)

: Conditions of restriction for the fol-



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| UK REACH Candidate list of subsconcern (SVHC) for Authorisation | , . | lowing entries should be considered: Number on list 3 Not applicable |
| The Persistent Organic Pollutants Regulation (EU) 2019/1021 as ar ain) | | Not applicable |
| Regulation (EC) on substances th layer | nat deplete the ozone : | Not applicable |
| UK REACH List of substances su (Annex XIV) | bject to authorisation : | Not applicable |
| GB Export and import of hazardo Informed Consent (PIC) Regulation | | Not applicable |

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

SECTION 16: Other information

Full text of other abbreviations

| GB EH40 | : | UK. EH40 WEL - Workplace Exposure Limits |
|----------------|---|--|
| GB EH40 / TWA | : | Long-term exposure limit (8-hour TWA reference period) |
| GB EH40 / STEL | : | Short-term exposure limit (15-minute reference period) |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIOC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quanti-



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tative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other 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.

Classification of the mixture:

| Met. Corr. 1 | H290 |
|--------------|------|
| STOT SE 3 | H335 |

Classification procedure:

| Based on product data or assessment |
|-------------------------------------|
| Calculation method |

GB / EN