

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Impulse für Mensch und Umwelt

## XB027-K30 MINERPLUS-EXTRA

Version: 1.6

Revision Date 30.05.2013

Print Date 10.06.2013

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

#### 1.1 Product identifier

Trade name : XB027-K30 MINERPLUS-EXTRA

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

Corrosive R34: Causes burns.

#### 2.2 Label elements

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

Hazard pictograms :



Corrosive

R-phrase(s) : R34 Causes burns.

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S-phrase(s) : S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S45 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:

- 7647-01-0 Hydrochloric 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 : Preparation based on mineral acid

#### Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Hydrochloric acid	7647-01-0 231-595-7 01-2119484862-27	C; R34  Xi; R37  Nota B	Skin Corr. 1B; H314  STOT SE 3; H335  Met. Corr. 1; H290	>= 10 - < 20
Orthophosphoric acid	7664-38-2 231-633-2 01-2119485924-24	C; R34  Nota B	Met. Corr. 1; H290  Skin Corr. 1B; H314	>= 2.5 - < 5

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Sulphuric acid	7664-93-9 231-639-5 01-2119458838-20	C; R35  Nota B	Skin Corr. 1A; H314	>= 2.5 - < 5
Phosphoric acid, 1-methylethyl ester	76483-21-1 278-477-1	C; R34	Skin Corr. 1B; H314	>= 2.5 - < 5

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

- If inhaled : Provide fresh air.  
Keep respiratory tract clear.
- In case of skin contact : Take off all contaminated clothing immediately.  
In case of contact, immediately flush skin with soap and plenty of water.  
Do NOT use solvents or thinners.
- In case of eye contact : Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.  
Seek medical advice.
- If swallowed : Keep at rest.  
Do NOT induce vomiting.  
Call a physician immediately.

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

- Symptoms : Erythema  
Blistering  
Pain
- Risks : corrosive effects

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

- Treatment : Treat symptomatically.  
For specialist advice physicians should contact the Poisons Information Service.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder  
Water mist

Unsuitable extinguishing media : none

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

Specific hazards during fire-fighting : Exposure to decomposition products may be a hazard to health.

#### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self contained breathing apparatus for fire fighting if necessary.

Further information : The product itself does not burn.  
Use water spray to cool unopened containers.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### SECTION 6: Accidental release measures

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

Personal precautions : Wear suitable protective clothing, gloves and eye/face protection.  
Avoid contact with skin, eyes and clothing.  
Refer to protective measures listed in sections 7 and 8.

#### 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 up mechanically and dispose according to local regulations.  
Neutralize with lime milk or soda and flush with plenty of wa-

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ter.  
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 : Product is used in dilutions with water  
Have eye wash bottle or eye rinse ready at the work place.  
Avoid contact with skin and eyes.

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 areas and containers : Keep only in the original container.  
Plastic container  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Further information on storage conditions : Protect from frost.

Advice on common storage : Incompatible with bases.

### 7.3 Specific end uses

Specific use(s) : Cleaner (decalcifying)

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Hydrochloric acid	7647-01-0	TWA	5 ppm 8 mg/m <sup>3</sup>	2000-06-16	2000/39/EC
Further information	:	Indicative			
	7647-01-0	STEL	10 ppm 15 mg/m <sup>3</sup>	2000-06-16	2000/39/EC

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Further information	:	Indicative				
		7647-01-0	TWA	1 ppm 2 mg/m <sup>3</sup>	2005-04-06	GB EH40
		7647-01-0	STEL	5 ppm 8 mg/m <sup>3</sup>	2005-04-06	GB EH40
Orthophosphoric acid		7664-38-2	TWA	1 mg/m <sup>3</sup>	2000-06-16	2000/39/EC
Further information	:	Indicative				
		7664-38-2	STEL	2 mg/m <sup>3</sup>	2000-06-16	2000/39/EC
Further information	:	Indicative				
		7664-38-2	TWA	1 mg/m <sup>3</sup>	2005-04-06	GB EH40
		7664-38-2	STEL	2 mg/m <sup>3</sup>	2005-04-06	GB EH40

**DNEL/DMEL**

Hydrochloric acid

: End Use: DNEL, Workers  
 Exposure routes: Inhalation  
 Potential health effects: Acute local effects  
 Value: 15 mg/m<sup>3</sup>

End Use: DNEL, Workers  
 Exposure routes: Inhalation  
 Potential health effects: Long-term systemic effects  
 Value: 8 mg/m<sup>3</sup>

Orthophosphoric acid

: End Use: DNEL, Workers  
 Exposure routes: Inhalation  
 Potential health effects: Long-term local effects  
 Exposure time: 8 h  
 Value: 2.92 mg/m<sup>3</sup>

Sulphuric acid

: End Use: DNEL, Workers  
 Exposure routes: Inhalation

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Potential health effects: Acute local effects  
Value: 0.1 mg/m<sup>3</sup>

End Use: DNEL, Workers  
Exposure routes: Inhalation  
Potential health effects: Long-term local effects  
Value: 0.05 mg/m<sup>3</sup>

### PNEC

Hydrochloric acid

: Fresh water  
Value: 36 µg/L

Marine water  
Value: 36 µg/L

Behaviour in waste water treatment plants  
Value: 36 µg/L

Sulphuric acid

: Fresh water  
Value: 2.5 µg/L

Marine water  
Value: 0.25 µg/L

Fresh water sediment  
Value: 0.002 mg/kg dry weight (d.w.)

Marine sediment  
Value: 0.002 mg/kg dry weight (d.w.)

Behaviour in waste water treatment plants  
Value: 8.8 mg/l

## 8.2 Exposure controls

### Personal protective equipment

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

Eye protection : Safety glasses with side-shields

Skin and body protection : Protective suit

Protective measures : Follow the skin protection plan.

### Environmental exposure controls

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

### **SECTION 9: Physical and chemical properties**

#### **9.1 Information on basic physical and chemical properties**

Appearance : liquid

Colour : yellow

Odour : stinging

pH : 1.5  
at 10 g/l  
20 °C

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 : 1.15 g/cm<sup>3</sup>  
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



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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

No hazards to be specially mentioned.

#### 10.2 Chemical stability

The product is chemically stable.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

#### 10.4 Conditions to avoid

Conditions to avoid : Protect from frost.  
Product is stable under appropriate usage.

#### 10.5 Incompatible materials

Materials to avoid : Bases

#### 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

Sulphuric acid : LD50: 2,140 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)

Acute inhalation toxicity  
Sulphuric acid : LC50: 375 mg/l  
Exposure time: 4 h

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Species: rat  
Method: OECD Test Guideline 403

Acute dermal toxicity  
Hydrochloric acid : LD50: > 5,010 mg/kg  
Species: rabbit

### Skin corrosion/irritation

Skin irritation : Irritating to skin and mucous membranes

### Serious eye damage/eye irritation

Eye irritation : May cause irreversible eye damage.

### Respiratory or skin sensitisation

Sensitisation : This information is not available.

### Germ cell mutagenicity

Hydrochloric acid : Ames test  
In vitro tests did not show mutagenic effects

### Germ cell mutagenicity

Remarks  
Hydrochloric acid : Not mutagenic in Ames Test.

### Carcinogenicity

Remarks : Not classifiable as a human carcinogen.

### Reproductive toxicity

Hydrochloric acid : Animal testing did not show any effects on fertility.

Teratogenicity  
Hydrochloric acid : This information is not available.

### Teratogenicity

Remarks  
Hydrochloric acid : Embryotoxicity classification not possible from current data.

### Reproductive toxicity

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### Remarks

Hydrochloric acid : Fertility classification not possible from current data.

### Target Organ Systemic Toxicant - Repeated exposure

Orthophosphoric acid : Species: rat  
Application Route: Oral  
NOAEL: <= 500  
Method: OECD Test Guideline 422

### Further information

: If swallowed, severe burns in the oral cavity and throat as well as danger of perforation of the digestive tract and stomach.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish : no data available

### Toxicity to fish

Hydrochloric acid : LC50: 20.5 mg/l  
Exposure time: 96 h  
Species: Lepomis macrochirus (Bluegill sunfish)

### Sulphuric acid

: LC50: 16 - 28 mg/l  
Exposure time: 96 h  
Species: Lepomis macrochirus (Bluegill sunfish)

### Toxicity to daphnia and other aquatic invertebrates

Hydrochloric acid : EC50: 0.45 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 202

### Orthophosphoric acid

: EC50: > 100 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 202

### Sulphuric acid

: EC50: > 100 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 202

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Toxicity to algae  
Hydrochloric acid

: static test EC50: 0.73 mg/l  
Exposure time: 72 h  
Species: Chlorella vulgaris (Fresh water algae)  
Method: OECD Test Guideline 201

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

Sulphuric acid

: IC50: > 100 mg/l  
Exposure time: 72 h  
Species: Desmodesmus subspicatus (green algae)  
Method: OECD Test Guideline 201

Toxicity to bacteria  
Hydrochloric acid

: EC50: 0.23 mg/l  
Species: activated sludge  
Method: OECD Test Guideline 209

### 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

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 : Dispose of in accordance with local regulations.  
Do not let product enter drains.  
Do not dispose of with domestic refuse.
- Packaging : Do not dispose of with domestic refuse.  
The hazard and precautionary statements displayed on the label also apply to any residues left in the container.
- 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., Hydrochloric acid, Sulfuric Acid  
Transport hazard class(es) : 8  
Packing group : II  
Classification Code : C9  
Hazard identification No : 80  
Packing instruction (LQ) : LQ22  
Limited Quantity (LQ) Inner : 1.00 L  
Packaging  
Labels : 8  
Tunnel restriction code : (E)  
Environmentally hazardous : no

#### IATA

- UN number : 1760  
Description of the goods : CORROSIVE LIQUID, N.O.S., Hydrochloric acid, Sulphuric acid  
Class : 8  
Packing group : II  
Labels : 8

#### IATA\_C

- Packing instruction (cargo aircraft) : 855  
Environmentally hazardous : no

#### IATA\_P

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Packing instruction (passenger aircraft) : 851  
Environmentally hazardous : no

### IMDG

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

### RID

UN number : 1760  
Description of the goods : CORROSIVE LIQUID, N.O.S., Hydrochloric acid , Sulfuric Acid  
Transport hazard class(es) : 8  
Packing group : II  
Classification Code : C9  
Hazard identification No : 80  
Labels : 8  
Packing instruction (LQ) : LQ22  
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.

### 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

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R34	Causes burns.
R35	Causes severe burns.
R37	Irritating to respiratory system.

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

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

### 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.