

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

- **Version number 1.2**
- **1.1. Product identifier**
- **Trade name Battery acid 1.40 (Akkumulatorensäure 1.40)**
- **Article number: 100100**
- **1.2. Relevant determined uses of the substance or mixture; and uses advised against:**
- **Sector of Use**
 - SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
 - SU21 Consumer uses: Private households / general public / consumers
 - SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Product category**
 - PC12 Fertilisers
 - PC14 Metal surface treatment products
 - PC15 Non-metal-surface treatment products
 - PC19 Intermediate
 - PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
 - PC21 Laboratory chemicals
 - PC23 Leather treatment products
 - PC25 Metal working fluids
 - PC29 Pharmaceuticals
 - PC32 Polymer preparations and compounds
 - PC34 Textile dyes, and impregnating products
 - PC35 Washing and cleaning products (including solvent based products)
 - PC37 Water treatment chemicals
 - PC39 Cosmetics, personal care products
 - PC40 Extraction agents
 - PC0 Other
- **Process category**
 - PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
 - PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
 - PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
 - PROC4 Chemical production where opportunity for exposure arises
 - PROC5 Mixing or blending in batch processes
 - PROC7 Industrial spraying
 - PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
 - PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
 - PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
 - PROC10 Roller application or brushing
 - PROC11 Non industrial spraying
 - PROC13 Treatment of articles by dipping and pouring
 - PROC15 Use as laboratory reagent
 - PROC19 Manual activities involving hand contact
 - PROC26 Handling of solid inorganic substances at ambient temperature
- **Environmental release category**
 - ERC1 Manufacture of the substance
 - ERC2 Formulation into mixture
 - ERC3 Formulation into solid matrix
 - ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
 - ERC5 Use at industrial site leading to inclusion into/onto article
 - ERC6a Use of intermediate
 - ERC6b Use of reactive processing aid at industrial site (no inclusion into or onto article)
 - ERC6c Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article)

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- ERC7 Use of functional fluid at industrial site
- ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
- ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
- ERC9a Widespread use of functional fluid (indoor)
- ERC9b Widespread use of functional fluid (outdoor)
- **Article category AC3** Electrical batteries and accumulators

· **1.3. Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Chemische Fabrik Wocklum Gebr. Hertin GmbH & Co. KG
D-58802 Balve, Glärbach 2, Germany
Phone: +49 (0)2375 / 925-0
Telefax: +49 (0)2375 / 925-100
E-Mail: sdb@wocklum.de

· **Informing department:** Product Safety Department

· **1.4. Emergency telephone number:**

Emergency Call:

Poison Control Center Mainz - 24 hour emergency service - Tel: +49 (0) 6131/19240

SECTION 2: Hazards identification

- **2.1. Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
 - Met. Corr.1 H290 May be corrosive to metals.
 - Skin Corr. 1A H314 Causes severe skin burns and eye damage.
 - Eye Dam. 1 H318 Causes serious eye damage.

· **2.2. Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS05

· **Signal word** Danger

· **Hazard-determining components of labelling:**

sulphuric acid

· **Hazard statements**

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

· **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P406 Store in corrosive resistant container with a resistant inner liner.

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- **2.3. Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2. Chemical characterisation: Mixtures**
- **Description:** Mixture consisting of the following components with harmless additives.

- **Dangerous components:**

CAS: 7664-93-9	sulphuric acid	☠ Met. Corr. 1, H290; Skin Corr. 1A, H314	50-100%
EINECS: 231-639-5			
Index number: 016-020-00-8			
Reg.nr.: 01-2119458838-20			

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1. Description of first aid measures**
- **General information**
Instantly remove any clothing soiled by the product.
Personal protection for the First Aider.
- **After inhalation** In case of unconsciousness bring patient into stable side position for transport.
- **After skin contact**
Cover wound with a sterile dressing.
Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.
Instantly wash with water and soap and rinse thoroughly.
- **After eye contact**
Remove contact lenses, if present and easy to do. Rinse opened eye for several (at least 10) minutes under running water. Then consult doctor.
- **After swallowing**
Rinse mouth out immediately and drink plenty of water. Do not induce vomiting. Pay attention to risk of aspiration after vomiting. Keep the respiratory tract free. In any case consult a physician.
Drink copious amounts of water and provide fresh air. Instantly call for doctor.
- **Information for doctor**
- **4.2. Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3. Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1. Extinguishing media**
- **Suitable extinguishing agents**
Product / material does not burn. Fire extinguishing measures according to environmental conditions.
- **5.2. Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3. Advice for firefighters**
- **Protective equipment:**
Wear self contained breathing apparatus.
Wear full protective suit.

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· **Additional information**

Cool endangered containers with water spray jet.

Fight fire in early stages if safe to do so. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area. When extinguishing with water pay attention to caustic burns.

Do not let enter contaminated extinguishing water into the soil, groundwater or surface waters.

Collect contaminated fire fighting water separately. It must not enter drains.

SECTION 6: Accidental release measures

· **6.1. Personal precautions, protective equipment and emergency procedures**

Wear protective equipment (see section 8).

Keep unprotected persons away.

Ensure adequate ventilation.

Avoid contact with skin and eyes.

Avoid breathing fume/ gas/ mist/ vapours/ aerosols.

· **6.2. Environmental precautions: Do not allow product to reach sewage system or water bodies.**

· **6.3. Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Send for recovery or disposal in suitable containers.

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **6.4. Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

SECTION 7: Handling and storage

· **Handling**

· **7.1. Precautions for safe handling**

Keep containers tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about protection against explosions and fires: Usual measures for fire prevention.**

· **7.2. Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and containers: Store only in the original container.**

· **Information about storage in one common storage facility:**

Keep away from: Alkali, metals, organic substances.

· **Further information about storage conditions: Keep container tightly sealed.**

· **7.3. Specific end use(s) No further relevant information available.**

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical systems: No further data; see item 7.**

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· **8.1. Control parameters**

· **Components with critical values that require monitoring at the workplace:**

7664-93-9 sulphuric acid

WEL Long-term value: 0.05* mg/m³
*mist: defined as thoracic fraction

· **DNELs**

7664-93-9 sulphuric acid

Inhalative	DNEL Workers (local, short-term)	0.1 mg/m ³ (/)
	DNEL Workers (local, long-term)	0.05 mg/m ³ (/)

· **PNECs**

7664-93-9 sulphuric acid

PNEC aqua (fresh water)	0.0025 mg/l (/)
PNEC aqua (marine water)	0.25 mg/l (/)
PMEC STP	8.8 mg/l (/)
PNEC sediment (fresh water)	0.002 mg/kg bw (/)
PNEC sediment (marine water)	0.002 mg/kg bw (/)

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2. Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

Do not eat, drink or smoke while working.
Wash contaminated clothing prior to re-use.
Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.

· **Breathing equipment:** Breathing protection recommended when aerosol and/or fog formation.

· **Protection of hands:**

Protective gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

(Penetration time \geq 8 hours)
chloroprene rubber - CR (0,5 mm)
nitrile rubber - NBR (0,35 mm)
butyl rubber - BR (0,5 mm)
polyvinyl chloride - PVC (0,5 mm)
fluorcarbon rubber (0,4 mm)

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Tightly sealed safety glasses (DIN EN 166)

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· **Body protection:**

Acid resistant protective clothing

Protective clothing should be selected in their place, depending on concentration and quantity of the hazardous substances. The chemical resistance of protective clothing should be clarified with their suppliers.

SECTION 9: Physical and chemical properties

· **9.1. Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Fluid
Colour: Colourless

· **Smell:** Odourless

· **Odour threshold:** Not determined.

· **pH-value:** <1

· **Change in condition**

Melting point/freezing point: Not determined

Initial boiling point and boiling range: 124 °C

· **Flash point:** Not applicable.

· **Inflammability (solid, gaseous)** Not applicable.

· **Ignition temperature:** No self-heating fuel, according to UN Test N.4.

· **Decomposition temperature:** Not determined.

· **Self-inflammability:** Product is not selfigniting.

· **Explosive properties:** Product is not explosive.

· **Critical values for explosion:**

Lower: Not applicable

Upper: Not applicable

· **Oxidising properties** No information available.

· **Steam pressure:** Not determined.

· **Density at 20 °C** 1.28 g/cm³

· **Settled apparent density** Not determined.

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water: Fully miscible

· **Partition coefficient: n-octanol/water:** Not determined.

· **Viscosity:**

dynamic: Not determined.

kinematic: Not determined.

Organic solvents: 0.0 %

Water: 49.5 %

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· 9.2. Other information

No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1. Reactivity** The substance is stable under normal conditions of use.
- **10.2. Chemical stability**
- **Conditions to be avoided:** No decomposition if intended stored and handled.
- **10.3. Possibility of hazardous reactions**
Exothermic reaction with water and alkalis.
Reacts with metals forming hydrogen
Reacts with alkali (lyes)
- **10.4. Conditions to avoid** No further relevant information available.
- **10.5. Incompatible materials:**
Alkali (lye).
Reacts with metals forming hydrogen.
- **10.6. Hazardous decomposition products:** Sulphur oxides (SO_x)

SECTION 11: Toxicological information

- **11.1. Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:**7664-93-9 sulphuric acid**

Oral	LD50.	2140 mg/kg (rat)
Inhalative	LC50/4h.	0.375 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Sensitisation:** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** 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.

SECTION 12: Ecological information**· 12.1. Toxicity****· Aquatic toxicity:****7664-93-9 sulphuric acid**

IC50 (72h)	> 100 mg/l (Alge (<i>Senedesmus capricornutum</i>))
EC50 (48h)	> 100 mg/l (<i>Daphnia magna</i> (großer Wasserfloh))
LC50 (96h)	16-28 mg/l (<i>Lepomis macrochirus</i> (Bl. Sonnenbarsch))

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- **12.2. Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **12.3. Bioaccumulative potential** No further relevant information available.
- **12.4. Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:**
Harmful effect on fish, plankton and sessile organisms due to pH shift. Does not cause oxygen depletion. No inhibition of activity of sewage bacteria after neutralization.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **12.5. Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6. Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1. Waste treatment methods**
- **Recommendation** Must be specially treated under adherence to official regulations.
- **Waste disposal key number:**
The waste code according to the Waste Catalogue Ordinance (AVV) must be determined by the waste producer, it depends on the type of use/ type of waste generation and may be different for a particular product.

· **European waste catalogue**

16 06 06*	separately collected electrolyte from batteries and accumulators
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- **Uncleaned packagings:**
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

- | | |
|---|---------------------|
| · 14.1. UN-Number | UN2796 |
| · ADR, IMDG, IATA | |
| · 14.2. UN proper shipping name | 2796 SULPHURIC ACID |
| · ADR | SULPHURIC ACID |
| · IMDG, IATA | |
| · 14.3. Transport hazard class(es) | |
| · ADR, IMDG, IATA | |



- | | |
|----------------|-------------------------|
| · Class | 8 Corrosive substances. |
| · Label | 8 |

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· 14.4. Packing group · ADR, IMDG, IATA	II
· 14.5. Environmental hazards:	Not applicable.
· 14.6. Special precautions for user · Kemler Number: · EMS Number: · Segregation groups · Stowage Category	Not applicable. 80 F-A,S-B Acids B
· 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category · Tunnel restriction code	2 E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 2796 SULPHURIC ACID, 8, II

SECTION 15: Regulatory information

- **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations**
- **Water hazard class:** Water hazard class 1 (L): Slightly hazardous to water.
- **15.2. Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
- **Department issuing data specification sheet:** Environment protection department.
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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ICAO: International Civil Aviation Organisation
RTECS - Registry of Toxic Effects of Chemical Substances
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Met. Corr. 1: Corrosive to metals – Category 1
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

· **Sources** This information is based on information from suppliers.

· * **Data compared to the previous version altered.** Changes Due to recent findings.

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Annex: Exposure scenario

· Short title of the exposure scenario

· Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· Product category

PC12 Fertilisers

PC14 Metal surface treatment products

PC15 Non-metal-surface treatment products

PC19 Intermediate

PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents

PC21 Laboratory chemicals

PC23 Leather treatment products

PC25 Metal working fluids

PC29 Pharmaceuticals

PC32 Polymer preparations and compounds

PC34 Textile dyes, and impregnating products

PC35 Washing and cleaning products (including solvent based products)

PC37 Water treatment chemicals

PC39 Cosmetics, personal care products

PC40 Extraction agents

PC0 Other

· Process category

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC5 Mixing or blending in batch processes

PROC7 Industrial spraying

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC10 Roller application or brushing

PROC11 Non industrial spraying

PROC13 Treatment of articles by dipping and pouring

PROC15 Use as laboratory reagent

PROC19 Manual activities involving hand contact

PROC26 Handling of solid inorganic substances at ambient temperature

· Article category AC3 Electrical batteries and accumulators

· Environmental release category

ERC1 Manufacture of the substance

ERC2 Formulation into mixture

ERC3 Formulation into solid matrix

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC5 Use at industrial site leading to inclusion into/onto article

ERC6a Use of intermediate

ERC6b Use of reactive processing aid at industrial site (no inclusion into or onto article)

ERC6c Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article)

ERC7 Use of functional fluid at industrial site

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- ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
- ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
- ERC9a Widespread use of functional fluid (indoor)
- ERC9b Widespread use of functional fluid (outdoor)
- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
- **Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** The substance is main component.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting worker exposure**
Indoor application.
Outdoor application.
Avoid contact with eyes.
Avoid contact with the skin.
- **Other operational conditions affecting consumer exposure** Keep out of the reach of children.
- **Other operational conditions affecting consumer exposure during the use of the product** Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** Ensure that suitable extractors are available on processing machines
- **Personal protective measures**
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
Avoid contact with the eyes.
Tightly sealed safety glasses (DIN EN 166)
Protective gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Measures for consumer protection**
Ensure adequate labelling.
Keep locked up and out of the reach of children.
- **Environmental protection measures**
- **Water**
Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.
- **Disposal measures**
Disposal must be made according to official regulations.
Ensure that waste is collected and contained.
- **Disposal procedures**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Waste type** Partially emptied and uncleaned packaging
- **Guidance for downstream users** No further relevant information available.