

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke 

gigazyme® X-tra **No Change Service!**

Version
02.03

Revision Date:
05.12.2016

Date of last issue: 20.09.2016
Date of first issue: 15.04.2013

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

1.1 Product identifier

Trade name : gigazyme® X-tra

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

Use of the Sub-
stance/Mixture : Cleaning agent, Disinfectants

Recommended restrictions
on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Manufacturer/ Supplier : Schülke & Mayr GmbH
Robert-Koch-Str. 2

22851 Norderstedt
Germany
Telephone: +49 (0)40/ 52100-0
Telefax: +49 (0)40/ 52100318
mail@schuelke.com
www.schuelke.com

E-mail address of person
responsible for the
SDS/Contact person : Application Department
+49 (0)40/ 521 00 8800
ADHI@schuelke.com
(Schülke & Mayr UK Ltd.: +44-1142543500)

1.4 Emergency telephone number

Emergency telephone num-
ber : UK Poisons Emergency number: 0870 600 6266
Emergency telephone num-
ber : +49 (0)40/ 52100-0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Skin corrosion, Category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Acute aquatic toxicity, Category 1	H400: Very toxic to aquatic life.
Acute aquatic toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

SAFETY DATA SHEET

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schülke 

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Version
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Date of first issue: 15.04.2013

Hazard statements	: H302 H314 H410	Harmful if swallowed. Causes severe skin burns and eye damage. Very toxic to aquatic life with long lasting effects.
Precautionary statements	: P273 P280 P301+P312 P303+P361+P353 P305+P351+P338 P501	Avoid release to the environment. Wear protective gloves/ eye protection/ face protection. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Dispose of contents/ container to an approved waste disposal plant.

Additional Labelling:

EUH208 Contains Subtilisin, Polyhexamethylene biguanide. May produce an allergic reaction.

Special labelling of certain mixtures : Labelling according to Regulation (EC) No. 648/2004: (5 - 15 % non-ionic surfactants, enzymes, perfumes)

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Solution of the following substances with harmless additives.

Hazardous components

Chemical name	Index-Number CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Didecyldimethylammonium chloride	612-131-00-6 7173-51-5 230-525-2	Acute Tox. 3; H301 Skin Corr. 1B; H314 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	7,7
Tridecylpolyethylenglycolether	- - - 69011-36-5 Polymer	Acute Tox. 4; H302 Eye Dam. 1; H318	< 10

SAFETY DATA SHEET

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Propan-2-ol	603-117-00-0 67-63-0 200-661-7 01-2119457558-25-XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	< 5
Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB)	616-207-00-X 27083-27-8 Polymer	Acute Tox. 4; H302 Acute Tox. 2; H330 Skin Sens. 1B; H317 Eye Dam. 1; H318 Carc. 2; H351 STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	0,4

Non-hazardous ingredients

Chemical name	Index-Number CAS-No. EC-No.	Concentration (% w/w)
Glycerol	- - - 56-81-5 200-289-5	< 40

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Take off all contaminated clothing immediately.
- If inhaled : If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- If swallowed : Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Treat symptomatically.,

4.3 Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Dry powder, Foam, Water spray jet, Carbon dioxide (CO₂)
- Unsuitable extinguishing media : High volume water jet

gigazyme® X-tra **No Change Service!**Version
02.03Revision Date:
05.12.2016Date of last issue: 20.09.2016
Date of first issue: 15.04.2013

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Specific risk from the substance or the product itself, its combustion products or evolved gases : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x)

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Personal precautions : Increased risk of slipping in the presence of leaked / spilled product. Use personal protective equipment.

6.2 Environmental precautions

- Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

see Section 8 + 13

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

- Advice on safe handling : Prepare the working solution as given on the label(s) and/or the user instructions.
- Advice on protection against fire and explosion : No special protective measures against fire required.
- Hygiene measures : Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Store at room temperature in the original container.
- Further information on storage conditions : Keep away from direct sunlight. Keep container tightly closed.
Keep away from heat. Recommended storage temperature: 5 - 25°C
- Advice on common storage : No materials to be especially mentioned.

7.3 Specific end use(s)

- Specific use(s) : none

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke 

gigazyme® X-tra **No Change Service!**

Version
02.03

Revision Date:
05.12.2016

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Date of first issue: 15.04.2013

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Propan-2-ol	67-63-0	Permissible exposure limit	200 ppm 500 mg/m ³	TRGS 900
		Ceiling Limit Value	400 ppm 1.000 mg/m ³	TRGS 900
		Permissible exposure limit	400 ppm 980 mg/m ³	OSHA
Glycerol	56-81-5	Permissible exposure limit (Form of exposure)	200 mg/m ³ (Aerosol)	DFG
		Short term exposure limit (Form of exposure)	400 mg/m ³ (Aerosol)	DFG
		Permissible exposure limit (Form of exposure)	5 mg/m ³ (Respirable dust)	OSHA

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Propan-2-ol	Workers	Skin contact	Long-term exposure, Systemic effects	888 mg/kg
	Workers	Inhalation	Long-term exposure, Systemic effects	500 mg/m ³

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

Substance name	Environmental Compartment	Value
Propan-2-ol	Fresh water	140,9 mg/l
	Marine water	140,9 mg/l
	Fresh water sediment	552 mg/kg
	Marine sediment	552 mg/kg
	Soil	28 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166

Hand protection
Directive : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Remarks : Splash protection: disposable nitrile rubber gloves e.g. Dermatril (layer thickness: 0.11 mm) made by KCL or gloves from other manufacturers offering the same protection. Pro-

gigazyme® X-tra **No Change Service!**Version
02.03Revision Date:
05.12.2016Date of last issue: 20.09.2016
Date of first issue: 15.04.2013

longed contact: Nitrile rubber gloves e.g. Camatril (>480 Min., layer thickness: 0,40 mm) or butyl rubber gloves e.g. Butoject (>480 Min., layer thickness: 0,70 mm) made by KCL or gloves from other manufacturers offering the same protection.

Protective measures : Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance	: liquid
Colour	: green
Odour	: odourized
Odour Threshold	: not determined
pH	: ca. 7,5, 20 °C, concentrate
Melting point/freezing point	: < -5 °C
Decomposition temperature	: Not applicable
Boiling point/boiling range	: not determined
Flash point	: ca. 52 °C, DIN 53213, Part 1
Other information: Does not sustain combustion.	
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: not determined
Relative vapour density	: No data available
Density	: ca. 1,08 g/cm ³ , 20 °C
Solubility(ies)	
Water solubility	: in all proportions , 20 °C
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: No data available
Viscosity	
Viscosity, dynamic	: ca. 53 mPa*s
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2 Other information

Corrosive in contact with metals : , Based on available data, the classification criteria are not met.,

SECTION 10: Stability and reactivity**10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

None reasonably foreseeable.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Protect from frost, heat and sunlight.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke -+

gigazyme® X-tra **No Change Service!**

Version
02.03

Revision Date:
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Date of last issue: 20.09.2016
Date of first issue: 15.04.2013

10.5 Incompatible materials

Do not mix with other products.,

10.6 Hazardous decomposition products

None reasonably foreseeable.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: 1.008 mg/kg, Harmful if swallowed.
Acute inhalation toxicity : Acute toxicity estimate: > 50 mg/l
Acute dermal toxicity : Acute toxicity estimate: > 5.000 mg/kg

Skin corrosion/irritation

Product:

Causes severe skin burns and eye damage., Calculation method

Serious eye damage/eye irritation

Product:

Causes serious eye damage., Calculation method

Respiratory or skin sensitisation

Product:

May cause sensitisation of susceptible persons.

Germ cell mutagenicity

Components:

Didecyldimethylammonium chloride:

Genotoxicity in vitro : OECD Test Guideline 471, Not mutagenic in Ames Test
Genotoxicity in vivo : Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), Rat, Oral, OECD Test Guideline 475, negative

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

Tridecylpolyethylenglycolether:

Genotoxicity in vitro : Not mutagenic in Ames Test
Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

Propan-2-ol:

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB):

Germ cell mutagenicity- Assessment : No data available

Carcinogenicity

Components:

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke 

gigazyme® X-tra **No Change Service!**

Version
02.03

Revision Date:
05.12.2016

Date of last issue: 20.09.2016
Date of first issue: 15.04.2013

Didecyldimethylammonium chloride:

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Tridecylpolyethylenglycolether:

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

Propan-2-ol:

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB):

Carcinogenicity - Assessment : Limited evidence of a carcinogenic effect.

Reproductive toxicity

Components:

Didecyldimethylammonium chloride:

Reproductive toxicity - Assessment : No data available

Tridecylpolyethylenglycolether:

Effects on fertility : Two-generation study, Rat, NOAEL: > 250 mg/kg, F1: > 250 mg/kg, F2: > 250 mg/kg

Effects on foetal development : Rat, Oral, NOAEL: > 50 mg/kg, NOAEL: 50 mg/kg
Rat, Dermal, NOAEL: > 250 mg/kg, NOAEL: 250 mg/kg

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.

Propan-2-ol:

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB):

Reproductive toxicity - Assessment : No data available

STOT - single exposure

Components:

Didecyldimethylammonium chloride:

No data available

Tridecylpolyethylenglycolether:

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Propan-2-ol:

May cause drowsiness or dizziness.

STOT - repeated exposure

Components:

Didecyldimethylammonium chloride:

No data available

Tridecylpolyethylenglycolether:

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Propan-2-ol:

Based on available data, the classification criteria are not met.

gigazyme® X-tra **No Change Service!**Version
02.03Revision Date:
05.12.2016

Date of last issue: 20.09.2016

Date of first issue: 15.04.2013

Repeated dose toxicity**Components:****Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):**

Toxic: danger of serious damage to health by prolonged exposure through inhalation.

Aspiration toxicity

No data available

Further information**Product:**

The product has not been tested.

SECTION 12: Ecological information**12.1 Toxicity****Product:**

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Components:**Didecyldimethylammonium chloride:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0,19 mg/l, 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,062 mg/l, 48 h

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,026 mg/l, 96 h

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC: 0,032 mg/l , 34 d, Pimephales promelas (fathead minnow), OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,010 mg/l , 21 d, Daphnia magna (Water flea), OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

Tridecylpolyethylenglycolether:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 1 - 10 mg/l, 96 h, OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): 1 - 10 mg/l, 48 h, OECD Test Guideline 202

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 1 - 10 mg/l, 72 h, OECD Test Guideline 201

Propan-2-ol:

Toxicity to fish : LC50 (Leuciscus idus): > 100 mg/l, 48 h, static test, Raw material, literature value

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): > 100 mg/l, 48 h, static test, Raw material, literature value

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l, 72 h, static test, Raw material, literature value

gigazyme® X-tra **No Change Service!**Version
02.03Revision Date:
05.12.2016Date of last issue: 20.09.2016
Date of first issue: 15.04.2013**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):**

Toxicity to fish : LC50 (Oncorhynchus mykiss): 0,026 mg/l, 96 h
 Toxicity to daphnia and other aquatic invertebrates : (Daphnia magna): 0,09 mg/l, 48 h, OECD Test Guideline 202
 Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,019 mg/l, 72 h, OECD Test Guideline 201
 M-Factor (Acute aquatic toxicity) : 10

12.2 Persistence and degradability**Product:**

Biodegradability : Readily biodegradable, according to appropriate OECD test., OECD 301D / EEC 84/449 C6

Components:**Didecyldimethylammonium chloride:**

Biodegradability : Readily biodegradable., OECD 301B/ ISO 9439/ EEC 84/449 C5

Tridecylpolyethylenglycolether:

Biodegradability : Readily biodegradable., OECD 301B/ ISO 9439/ EEC 84/449 C5

Propan-2-ol:

Biodegradability : Readily biodegradable.

Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):

Biodegradability : According to the results of tests of biodegradability this product is not readily biodegradable.

12.3 Bioaccumulative potential**Components:****Didecyldimethylammonium chloride:**

Bioaccumulation : Lepomis macrochirus (Bluegill sunfish), 46 d, Bioconcentration factor (BCF): 81

Tridecylpolyethylenglycolether:

Bioaccumulation : Bioaccumulation is unlikely.

Propan-2-ol:

Bioaccumulation : No bioaccumulation is to be expected (log Pow <= 4).

Partition coefficient: n-octanol/water : log Pow: 0,05 (20 °C), OECD Test Guideline 107

Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):

Bioaccumulation : Bioaccumulation is unlikely.

12.4 Mobility in soil**Components:****Didecyldimethylammonium chloride:**

Mobility : Mobile in soils

Tridecylpolyethylenglycolether:

Mobility : The product evaporates slowly., Adsorbs on soil.

Propan-2-ol:

Mobility : Mobile in soils

Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke 

gigazyme® X-tra **No Change Service!**

Version
02.03

Revision Date:
05.12.2016

Date of last issue: 20.09.2016
Date of first issue: 15.04.2013

Mobility : After release, adsorbs onto soil.

12.5 Results of PBT and vPvB assessment

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 Other adverse effects

Product:

Additional ecological information : none

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of the product according to the defined EWC (European Waste Code) No.

Contaminated packaging : Take empty packaging to the recycling plant.

Waste key for the unused product : European waste catalog (EWC) 070601

Waste key for the unused product(Group) : Waste material of HZVA from fats, lubricants, soaps, detergents, disinfectants and personal protection products.

SECTION 14: Transport information

14.1 UN number

ADR : UN 3082

IMDG : UN 3082

IATA : UN 3082

14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Didecyldimethylammonium chloride)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Didecyldimethylammonium chloride)

IATA : Environmentally hazardous substance, liquid, n.o.s.
(Didecyldimethylammonium chloride)

14.3 Transport hazard class(es)

ADR : 9

IMDG : 9

IATA : 9

14.4 Packing group

ADR

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke 

gigazyme® X-tra **No Change Service!**

Version
02.03

Revision Date:
05.12.2016

Date of last issue: 20.09.2016
Date of first issue: 15.04.2013

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : E

IMDG

Packing group : III
Labels : 9
EmS Code : F-A, S-F

IATA

Packing instruction (cargo aircraft) : 964
Packing group : III
Labels : Miscellaneous

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Not classified as supporting combustion according to the transport regulations.
For personal protection see section 8.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Legislation on the control of major-accident hazards involving dangerous substances : The product belongs to at least one of the categories 1 through 11 mentioned in Annex 1 of the Directive 1996/82/EC concerning the control of major accident hazards.

Volatile organic compounds : Volatile organic compounds (VOC) content: < 5 %, Directive 2010/75/EC on the limitation of emissions of volatile organic compounds

Other regulations : Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

gigazyme® X-tra **No Change Service!**Version
02.03Revision Date:
05.12.2016Date of last issue: 20.09.2016
Date of first issue: 15.04.2013**15.2 Chemical safety assessment**

Exempt

SECTION 16: Other information**Full text of H-Statements**

H225	: Highly flammable liquid and vapour.
H301	: Toxic if swallowed.
H302	: Harmful if swallowed.
H314	: Causes severe skin burns and eye damage.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H330	: Fatal if inhaled.
H336	: May cause drowsiness or dizziness.
H351	: Suspected of causing cancer.
H372	: Causes damage to organs through prolonged or repeated exposure if inhaled.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Acute aquatic toxicity
Aquatic Chronic	: Chronic aquatic toxicity
Carc.	: Carcinogenicity
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Flam. Liq.	: Flammable liquids
Skin Corr.	: Skin corrosion
Skin Sens.	: Skin sensitisation
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; 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 Develop-

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke -+

gigazyme® X-tra ***No Change Service!***

Version
02.03

Revision Date:
05.12.2016

Date of last issue: 20.09.2016
Date of first issue: 15.04.2013

ment; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) 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; TCSI - Taiwan Chemical Substance 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

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No. 1272/2008

Acute Tox. 4, H302	: Calculation method
Skin Corr. 1B, H314	: Calculation method
Eye Dam. 1, H318	: Calculation method
Aquatic Acute 1, H400	: Calculation method
Aquatic Acute 2, H411	: Calculation method

Changes compared with the previous edition!!!

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