

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

1.1 Product identifier

Trade name/designation GREEN&CLEAN H1

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

Relevant identified uses

Sector of uses [SU]

SU20 Health services.

Product categories [PC]

disinfectants

1.3 Details of the supplier of the safety data sheet

Manufacturer

METASYS Medizintechnik GmbH

Florianistrasse 3

AUSTRIA-6063 Rum bei Innsbruck

Telephone: *43-512-205420

Telefax: *43-512-205420-7

E-mail: sebastian.geiger@metasys.com

Dept. responsible for information: DES/ ENT

Information telephone: *43-512-205420

Information telefax: *43-512-205420-7

E-mail (competent person): sebastian.geiger@metasys.com

www.metasys.com

1.4 Emergency telephone number

Giftnotruf München *49-(0)89-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

Acute Tox. 4

hazard statements for health hazards

H302 Harmful if swallowed.

health hazards

Acute Tox. 4

hazard statements for health hazards

H312 Harmful in contact with skin.

health hazards

Skin Corr. 1B

hazard statements for health hazards

H314 Causes severe skin burns and eye damage.

health hazards

Resp. Sens. 1

hazard statements for health hazards

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Environmental hazards

Aquatic Acute 1

hazard statements for environmental hazards

H400 Very toxic to aquatic life.

Classification procedure

Harmonised (legal) classification.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



GHS05



GHS07



GHS08



GHS09

Signal word

Danger

Hazard statements

hazard statements for health hazards

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Hazard statements for environmental hazards:

H400 Very toxic to aquatic life.

Precautionary statements

General:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

Prevention:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

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

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

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Disposal:

P501 Dispose of contents/container to .

Product identifiers

Subtilisin

Quaternäre Ammoniumverbindungen, Benzyl-C8-18-alkyldimethyl-, Chloride

Alkyl Polyglykolether C10-16 mit PO und EO

2.3 Other hazards

No data available

SECTION 3: Composition / information on ingredients**3.1/3.2 Substances/Mixtures****Hazardous ingredients**

Subtilisin	6 %
CAS 9014-01-1	
EC 232-752-2	
INDEX 647-012-00-8	
STOT SE 3, H335 / Skin Irrit. 2, H315 / Eye Dam. 1, H318 / Resp. Sens. 1, H334	
Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	20 %
CAS 63449-41-2	
EC 264-151-6	
INDEX 612-140-00-5	
Acute Tox. 4, H312 / Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Aquatic Acute 1, H400	
Alkyl Polyglykolether C10-16 mit PO und EO	3 %
CAS 69227-22-1	
Acute Tox. 4, H302 / Eye Dam. 1, H318	

SECTION 4: First aid measures**4.1 Description of first aid measures****General information**

Take off immediately all contaminated clothing.

Following inhalation

In case of breathing difficulties administer oxygen. In case of irregular breathing or respiratory arrest provide artificial respiration. Provide fresh air. In case of inhaling spray mists, consult a doctor immediately and show him box or label.

Following skin contact

In case of skin irritation, seek medical treatment. After contact with skin, wash immediately with plenty of water and soap.

After eye contact

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink large quantities of water. Do not induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Additional information

Move undamaged containers from immediate hazard area if it can be done safely.

5.1 Extinguishing media

Suitable extinguishing media

Foam. Extinguishing powder. Atomized water.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Can be released in case of fire:

Ammonia. Nitrogen oxides (NO_x). Carbon monoxide. Hydrogen chloride (HCl).

5.3 Advice for firefighters

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

Methods for cleaning up

Suitable absorbing material:

Absorbing material, organic.

sand

Universal binding agent. sawdust. diatomaceous earth. Remove mechanically, placing in appropriate containers for disposal. Collect in closed containers for disposal.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions

Wear personal protection equipment. Wear respiratory protection when in the presence of vapour, dust, and aerosols.

6.2 Environmental precautions

Do not empty into drains or the aquatic environment.

6.3 Methods and material for containment and cleaning up

No data available

6.4 Reference to other sections

No data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Measures to prevent aerosol and dust generation

During filling, metering, mixing and sampling must be used:

Closed devices.

7.2 Conditions for safe storage, including any incompatibilities

Hints on joint storage

Materials to avoid

Materials to avoid

Oxidizing agents.

Do not store together with:
Oxidizing agents.

Storage class

Brennbare ätzende Stoffe (flüssig).

Further information on storage conditions**storage temperature**

Value 5 - 30 °C

7.3 Specific end use(s)**Recommendation**

Observe instructions for use.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limit values**

CAS No.	Substance name	LTV	STV	remark
9014-01-1	Subtilisins (proteolytic enzymes as 100% pure crystalline enzyme)	0,00004 mg/m ³		Great Britain (UK)

LTV = long-term occupational exposure limit value

STV = short-term occupational exposure limit value

source: GESTIS International Limit Values (<http://limitvalue.ifa.dguv.de/>)

Monitoring and observation processes: GESTIS Analytical Methods (<http://amcaw.ifa.dguv.de/>)

8.2 Exposure controls**Personal protection equipment****General protection and hygiene measures:**

Avoid contact with skin, eye and clothing. Wash contaminated clothing prior to re-use. Take off immediately all contaminated clothing.

Eye/face protection**Suitable eye protection:**

Tightly sealed safety glasses.

Skin protection**Hand protection:****Hand protection**

Tested protective gloves are to be worn:

Suitable gloves type:

Single-use gloves.

Required properties:

liquid-tight.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

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

liquid:

viscous

Colour

blue

Odour

characteristic

		parameter	Method - source - remark
pH	ca.7	Concentration (g/L) 10 g/L	
Melting point/freezing point			not determined
Initial boiling point and boiling range			not determined
Flash point (°C)	>63 °C		Flash point (°C):
Evaporation rate			not determined
flammability			not determined
Upper explosion limit			not determined
lower explosion limit			not determined
Vapour pressure			not determined
Vapour density			not determined
Relative density	1,01 g/cm ³	Temperature 20 °C	
Fat solubility (g/L)			not determined
Water solubility (g/L)			not determined
Soluble (g/L) in			not determined
Partition coefficient: n-octanol/water			not determined
Auto-ignition temperature			not determined
Decomposition temperature			not determined

9.2 Other information
Solvent content (%)

Value <1 %

SECTION 10: Stability and reactivity
10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

General remarks

The statement is derived from the properties of the components.

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity >1000 mg/kg

Effective dose

LD50:

Species:

Rat.

Exposure time: 48 h

skin corrosion/irritation

Acid-/Alkali reserve (buffer capacity for mixtures with extreme pH values)

Result

The mixture has a low buffer capacity (Acid / Alkaline reserve).

Respiratory or skin sensitisation

Skin sensitisation

Result / evaluation

sensitizing.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute Daphnia toxicity =0,1 mg/L

Effective dose:

EC50:

Exposure time: =48 h

species:

Daphnia magna

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product

Waste disposal according to official state regulations.

Waste code packaging 070699

hazardous waste No

Waste name

wastes not otherwise specified

remark

Remove according to the regulations.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN-No.	1903	1903	1903
14.2 Proper Shipping Name	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (QUATAERE AMMONIUM VERBINDUNG)	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUND)	Disinfectant, liquid, corrosive, n.o.s. (QUATERNARY AMMONIUM COMPOUND)
14.3 Class(es)	8	8	8
14.4 Packing group	III	III	III
14.5 ENVIRONMENTALLY HAZARDOUS	Yes.	Yes.	Yes.
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	not applicable	not applicable	not applicable

Additional information - Land transport (ADR/RID)

Hazard label(s) 8
Classification code C9
Limited quantity (LQ) 5 L
Hazard identification number (Kemler No.) 80
tunnel restriction code E
transport category 3

Additional information - Sea transport (IMDG)

Marine pollutant No

Segregation group

Category B

Additional information - Air transport (ICAO-TI / IATA-DGR)**Limited quantity (LQ)**

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SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU legislation****Other regulations (EU)****Regulation 96/82/EC for danger control following severe accidents with dangerous substances:**

96/82/EG, annex I, part 2: Observe quantity limits according to R-phrases.

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds**Volatile organic compounds (VOC) in percentage by weight: 0 Wt %****15.2 Chemical Safety Assessment**

Chemical safety assessments for substances in this preparation were not carried out.

SECTION 16: Other information**Indication of changes**

Sebastian Geiger: Auf Stand EWG1272/2008

Key literature references and sources for data

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.