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

1.1. Product identifier

Name of product

Aqua Clean AC1000
Art-Nr 01.0001.00
BAuA Nr. N-58428

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

Recommended intended purpose(s)
water treatment

Effect of the substance / the mixture
The product is used as a biocide.

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor

Yachticon A. Nagel GmbH
Hans-Böckler-Ring 33, D-22851 Norderstedt
Phone +49 40 511 37 80, Fax +49 40 51 74 37
E-Mail yachticon@yachticon.de
Internet www.yachticon.de

Advice

Phone +49 40 511 37 80
Fax +49 40 51 74 37
E-mail (competent person):
yachticon@yachticon.de

1.4. Emergency telephone number

Emergency advice

Phone +49 40 511 37 80
This number is only available at office times.

! SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

! **Additional hints**
This mixture is not classified as hazardous according to Regulation (EC) 1272/2008 [GHS].

2.2. Label elements

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

Precautionary Statements

General

P102	Keep out of reach of children.
P103	Read label before use.

Disposal

P501	Dispose of contents/container to an approved waste handling.

Additional information

Remark
Use biocides safely. Always read the label and product information before use.

2.3. Other hazards
! **Results of PBT and vPvB assessment**
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

! SECTION 3: Composition/ information on ingredients

! **Additional advice**
Biocidal active substance: Silver

3.2. Mixtures
not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures
General information
Remove moisted clothing immediately.
In the event of persistent symptoms receive medical treatment.

In case of inhalation
Ensure of fresh air.

In case of skin contact
In case of contact with skin wash off with water.

In case of eye contact
In case of contact with eyes rinse thoroughly with water.
Remove contact lenses.

In case of ingestion
Do not induce vomiting.
Rinse out mouth thoroughly with water.

4.2. Most important symptoms and effects, both acute and delayed
No information available.

4.3. Indication of any immediate medical attention and special treatment needed
No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Product does not burn, fire-extinguishing activities according to surrounding.
Alcohol-resistant foam
Dry fire-extinguishing substance
Carbon dioxide
Water spray jet

5.2. Special hazards arising from the substance or mixture
The product itself does not burn.

5.3. Advice for firefighters
Special protective equipment for fire-fighters
Use breathing apparatus with independent air supply (isolated).
Wear full protective clothing.

Additional information
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Ensure adequate ventilation.
Avoid skin and eye contact.
Use personal protective clothing.

6.2. Environmental precautions
Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up
Take up dry.
Flush away residues with water.
After taking up the material dispose according to regulation.

6.4. Reference to other sections
Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8
Emergency telephone number: see section 1

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Take the usual precautions when handling with chemicals.
Handle in accordance with good industrial hygiene and safety practice.

General protective measures
Avoid contact with eyes and skin

Hygiene measures
Clean skin thoroughly after working.
At work do not eat, drink and smoke.
Remove soiled or soaked clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities
Further information on storage conditions
Keep container tightly closed and store at cool and aired place.

Storage group 12

7.3. Specific end use(s)
No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No information available.

8.2. Exposure controls
Respiratory protection
Not necessary with adequate exhaust ventilation.

Hand protection
Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Nitril, 0,4 mm, 60 min, 480 min. e.g. "Camatril Profi" (KCL GmbH, Email: Vertrieb@kcl.de)
The selection of the suitable gloves does not only depend on different material, but also on further marks of quality and varies from manufacturer to manufacturer.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

Eye protection
safety goggles

Other protection measures
Light protective clothing.

Appropriate engineering controls
Ensure good ventilation, where necessary use fume hood.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	**Colour**	**Odour**
liquid	colourless	odourless

Odour threshold
No information available.

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	ca. 7				
boiling point	> 100 C				
melting point	< 0 °C				
Flash point					not applicable
Vapourisation rate	No information available.				
Flammable (solid)	No information available.				

	Value	Temperature	at	Method	Remark
Flammability (gas)	No information available.				
Ignition temperature	No information available.				
Self ignition temperature					The product is not self-igniting.
Lower explosion limit	No information available.				
Upper explosion limit	No information available.				
Vapour pressure	No information available.				
Relative density	ca. 1 g/cm³	20 °C			
Vapour density	No information available.				
Solubility in water					multimiscible
Solubility/other	No information available.				
Partition coefficient n-octanol/water (log P O/W)	No information available.				
Decomposition temperature	No information available.				
Viscosity	No information available.				

Oxidising properties
No information available.

Explosive properties
The product is not explosive.

9.2. Other information
No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
No information available.

10.2. Chemical stability
Stable under normal conditions of use.
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
Under influence of acids, and through slow hydrolysis in aqueous solution, formation of carbon disulphide.

10.4. Conditions to avoid
No information available.

10.5. Incompatible materials
No information available.

10.6. Hazardous decomposition products
Concerning possible decomposition products see section 5.

Thermal decomposition

Remark No decomposition if used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	3000 mg/kg	rat		Information refers to main component.
LD50 acute dermal	> 1000 mg/kg	rabbit		Information refers to main component.
Irritability skin	non-irritant			
Irritability eye	low irritant			
Skin sensitization				No known sensitization.
Sensitization respiratory system				No known sensitization.

Experiences made from practice
Inhalation of vapors may cause headache, drowsiness and dizziness.
Frequent persistent contact with the skin may cause skin irritation.

Additional information
The product should be handled with the care usual when dealing with chemicals.
Further hazardous properties can not be excluded.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 > 1000 g/m³ (96 h)	Pimephales promelas		Information refers to main component.

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 substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects
General regulation
Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recommendations for the product
There are no harmonised regulations on the disposal of chemicals in the member states of the EU. In Germany the Recycling and Waste Management Act (KrWG) stipulates recycling as a requirement. This means that a distinction must be made between "wastes for recycling" and "wastes for disposal". Particular aspects - in the main concerning delivery - are also governed by the Laender.

Recommendations for packaging
Totally emptied packaging may be taken for recycling.
Totally emptied packaging may be treated as household waste.
Disposal according to official regulations.

Recommended cleansing agent
water

General information
Allocation of the waste number has to be done according to the EWC directive industry- and process-specific.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	-	-	-
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)	-	-	-
14.4. Packing group	-	-	-
14.5. Environmental hazards	-	-	-

14.6. Special precautions for user
No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available.

Transport/further information
No dangerous goods as defined by the transport regulations - ADR/RID, IMDG, ICAO/IATA-DGR.

SECTION 15: Regulatory information

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

National regulations

Water hazard class	1	following VwVwS slightly hazardous to water

15.2. Chemical Safety Assessment
No information available.

SECTION 16: Other information

Recommended uses and restrictions
National and local regulations concerning chemicals shall be observed.

Further information
The national special regulations have to be implemented by each user their own responsibility!
The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.
Please note: Our Material Safety Data Sheets have been prepared in accordance with EU directives, WITHOUT taking into account the specific national regulations for handling hazardous materials and chemicals.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.3

Sources of key data used
Data sheets of the suppliers.
Federal Environment Agency (water hazard classes)