

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

1.1. Product identifier

Name of product Aqua Clean AC 5
Art-Nr 01.0003.00

**1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended intended purpose(s)**

water treatment

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor

Yachticon A. Nagel GmbH
Bürgermeister-Bombeck-Str. 1, 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.
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! SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Aquatic Chronic 1	H410	
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! Hazard statements for environmental hazards

H410 Very toxic to aquatic life with long lasting effects.

Additional hints

This mixture is classified as hazardous according to Regulation (EC) No 1272/2008 [GHS].

2.2. Label elements

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



GHS09

! Signal word
Warning

! Hazard statements for environmental hazards
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

General

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

! Prevention

P273 Avoid release to the environment.

! Response

P391 Collect spillage.

! 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

3.1. Substances

not applicable

3.2. Mixtures

! Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
7440-22-4	231-131-3	silver (Ag+)	< 0,2	Aquatic Acute 1, H400 M=1000 / Aquatic Chronic 1, H410 M=100

REACH

CAS No	Name	REACH registration number
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Additional advice

Biocidal active substance: Silver

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

Avoid the formation and deposition of dust.
Take the usual precautions when handling with chemicals.

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 13

7.3. Specific end use(s)

No information available.

! SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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 tablet	Colour white	Odour odourless
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Odour threshold
not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	ca. 7				
boiling point	ca. 1460 °C				
melting point	ca. 800 °C				
Flash point					not applicable
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature					The product is not self-igniting.
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	not determined				
Vapour density	not determined				
Solubility in water	ca. 358 g/l	20 °C			
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				

	Value	Temperature	at	Method	Remark
Viscosity	not determined				

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

No information available.

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/Irritation/Sensitization**

	Value/Validation	Species	Method	Remark
LD50 acute oral	3000 mg/kg	rat		Information concerns to main component.
LD50 acute dermal	> 10000 mg/kg	rabbit		Information refers to main component.
Skin irritation	non-irritant			
Eye irritation	low irritant			

Value/Validation	Species	Method	Remark
Skin sensitization			No known sensitization.
Sensitization respiratory system			No known sensitization.
Experiences made from practice			
Frequent persistent contact with the skin may cause skin irritation. Dust can cause eye 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/m ³ (96 h)	Pimephales promelas		Information refers to main component.

12.2. Persistence and degradability

Elimination rate	Method of analysis	Method	Validation
Biological degradability			The methods for determining biodegradability are not applicable to inorganic substances.

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	3077	3077	3077
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (silver (Ag+))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O. S. (silver (Ag+))	Environmentally hazardous substance, solid, n.o.s. (silver (Ag+))
14.3. Transport hazard class(es)	9	9	9
14.4. Packing group	III	III	III
14.5. Environmental hazards	No	No	No

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.

Land and inland navigation transport ADR/RID

Hazard label(s) 9
 tunnel restriction code E
 Classification code M7

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 2 precautionary 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.