

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

**1.1. Product identifier**

**Name of product** Aqua Clean AC 50.000  
Art-Nr 01.0019.00

**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.

**! 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.

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**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**

Rinse out mouth and give plenty of water to drink.

**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.

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**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.

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**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.

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#### 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

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### 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.  
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** 13

#### 7.3. Specific end use(s)

No information available.

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### ! SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### 8.2. Exposure controls

##### Respiratory protection

Wear a dust mask if dust occurs.  
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**

<b>Appearance</b> powder	<b>Colour</b> white	<b>Odour</b> odourless
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**Odour threshold**  
not determined

**Important health, safety and environmental information**

	Value	Temperature	at	Method	Remark
<b>pH value</b>	ca. 7				
<b>boiling point</b>	1461 °C				
<b>melting point</b>	801 °C				
<b>Flash point</b>					No flash point.
<b>Vapourisation rate</b>	not determined				
<b>Flammable (solid)</b>	not determined				
<b>Flammability (gas)</b>	not determined				
<b>Ignition temperature</b>	not determined				
<b>Self ignition temperature</b>					The product is not self-igniting.
<b>Lower explosion limit</b>	not determined				
<b>Upper explosion limit</b>	not determined				
<b>Vapour pressure</b>	not determined				
<b>Relative density</b>	not determined				
<b>Vapour density</b>	not determined				
<b>Solubility in water</b>	ca. 358 g/l	20 °C			
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	not determined				
<b>Decomposition temperature</b>	not determined				
<b>Viscosity</b>	not determined				

**Oxidising properties**

No information available.

**Explosive properties**

The product is not explosive.

**9.2. Other information**

No information available.

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**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No information available.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No information available.

**10.4. Conditions to avoid**

Feuchtigkeit

**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.

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**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity/Irritation/Sensitization**

	Value/Validation	Species	Method	Remark
<b>LD50 acute oral</b>	3000 mg/kg	rat		Information concerns to main component.
<b>LD50 acute dermal</b>	> 10000 mg/kg	rabbit		Information refers to main component.
<b>Skin irritation</b>	non-irritant			
<b>Eye irritation</b>	low irritant - no labeling duty			
<b>Skin sensitization</b>				No known sensitization.

Value/Validation	Species	Method	Remark
<b>Sensitization respiratory system</b>			No known sensitization.
<b>Experiences made from practice</b> Repeated and prolonged skin contact may cause an irritation. Dust can cause eye irritation.			
<b>Additional information</b> 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
<b>Fish</b> LC50 1000 g/m3 (96 h)	Pimephales promelas		Information refers to main component.

### 12.2. Persistence and degradability

Elimination rate	Method of analysis	Method	Validation
<b>Biological degradability</b>			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.

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**SECTION 14: Transport information**

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

**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.

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**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

**Decree for case of interference/remarks** Accident decree, addendum II: not named.

**15.2. Chemical Safety Assessment**

No information available.



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## SECTION 16: Other information

### Training advice

See the technical data sheet for more 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: 1.4

### Sources of key data used

Data sheets of the suppliers.

Federal Environment Agency (water hazard classes)