

# SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH)



## Art. 4720, AK-COMBI

Version: 11

Revision date: 19.09.2023

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### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

**Identification / trade name:** Art. 4720, AK-COMBI  
**REACH registration number:** not notifiable  
**UFI:** Y51P-YKRT-VE0F-3MMW

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

**Use of the substance / mixture:**

Algae and lime prevention

#### 1.3 Details of the supplier of the safety data sheet

**Supplier / Manufacturer:** HWR-CHEMIE GmbH  
Moosfeldstrasse 7  
D-82275 Emmering

**Telephone:** 0049-8141-51030  
**Telefax:** 0049-8141-510355  
**E-mail:** info@hwr-chemie.de

**E-mail (competent person):** infoSDB@hwr-chemie.de  
**Information contact:** Laboratory

#### 1.4 Emergency phone

**Emergency phone Germany:** 0049-8141-51030 (only during office hours)  
**Emergency phone Austria:** 0043 1 406 43 43 (poison information centre)

### SECTION 2. Hazards identification

#### 2.1 Classification of the substance or mixture

**Regulation (EC) No 1272/2008**

Aquatic Acute 1, H400; Aquatic Chronic 2, H411

#### 2.2 Label elements

**Regulation (EC) No 1272/2008**

**Hazard pictograms**



**Signal word:** Warning.

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### Hazard statements

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

P501 Dispose of contents/container at hazardous or special waste collection point.

### 2.3 Other hazards

The substances in this mixture do not meet the PBT/vPvB criteria of REACH, annex XIII.

The substances in this mixture do not have any endocrine disrupting properties.

## SECTION 3. Composition / information on ingredients

### 3.1 Substances

This product is a mixture.

### 3.2 Mixtures

#### Chemical characterization

Mixture of cationic surfactants and phosphonic acids in water.

#### Hazardous ingredients

1 -10 % N,N-Dimethyl-2-hydroxypropylammoniumchloride polymer, CAS 25988-97-0,

Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410

< 3 % Hydroxyethylidenediphosphonic acid, EG 220-552-8, Met. Corr.1, H290; Eye Dam. 1, H318;

Acute Tox. 4, H302

#### Additional information

Full text of hazard classes and H-phrases: see section 16

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

<b>General informations:</b>	In case of persistent symptoms seek medical advice. Remove contaminated clothing. In case of unconsciousness place patient into stable side position for transportation. Never give fluids or induce vomiting if patient is unconscious or is having convulsions.
<b>In case of inhalation:</b>	Provide affected person with fresh air and seek medical advice depending on the symptoms.
<b>In case of skin contact:</b>	Contaminated, soaked clothing should be immediately removed. Wash skin thoroughly with soap and water.
<b>In case of eye contact:</b>	Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
<b>In case of ingestion:</b>	Rinse mouth immediately and then drink plenty of water. Do not induce vomiting. Seek medical advice at once. In case of spontaneous vomiting hold the head of the casualty low with the body in a prone position in order to avoid aspiration.

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### 4.2 Most important symptoms and effects, both acute and delayed

Contact with eyes may cause reddening, running eyes and smarting pain. Ingestion may result in nausea and stomach pain. Possible burn of the upper part of gastrointestinal tract.

### 4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment (decontamination, vital functions), no known specific antidote.

## SECTION 5. Fire-fighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media:** Water spray jet / foam / CO<sub>2</sub> / dry extinguishing powder

**Unsuitable extinguishing media:** Full water jet.

### 5.2 Special hazards arising from the substance or mixture

None suspected.

### 5.3 Advice for fire-fighters

The product itself is not flammable. Co-ordinate fire-fighting measures to the fire surroundings.

Special protective equipment: Wear full protective suit with self-contained breathing apparatus.

Collect contaminated fire extinguishing water separately. Do not allow entering drains, surface water or soil.

## SECTION 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Wear protective equipment.

### 6.2 Environmental precautions

Large quantities of spills should be contained by. Do not allow to enter undiluted into surface water or drains.

### 6.3 Methods and material for containment and cleaning up

Absorb with an absorbent material and dispose of according to local regulations.

### 6.4 Reference to other sections

Observe protective measures in sections 8 and disposal considerations in section 13.

## SECTION 7. Handling and Storage

### 7.1 Precautions for safe handling

#### Advices on safe handling

Wear protective clothing. Open carefully and keep container closed when not in use.

Avoid release into the environment.

General hygiene measures:

- Eating, drinking or smoking is prohibited in areas, where work is performed.
- Wash your hands after use.
- Take off contaminated clothing and protective equipment before entering eating areas.

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### Precautions against fire and explosion

Product does not burn itself.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Store in tightly closed original container in a dry and cool place.

Storage compatibility and limitations according to TRGS 510 must be observed.

### 7.3 Specific end uses

Observe product information sheet.

eCl@ss (8.0): 30-27-01-90

## SECTION 8. Exposure controls / Personal protection

### 8.1 Control parameters

Does not contain substances fixing an occupational exposure limit.

### 8.2 Exposure controls / Personal protection equipment

#### Appropriate engineering controls

See section 7. No additional measures necessary.

#### Personal protection equipment

<b>Respiratory protection:</b>	not applicable
<b>Hand protection:</b>	gloves recommended
<b>Eye protection:</b>	safety goggles recommended
<b>Protective clothing:</b>	usual work clothes

#### General health and safety measures

Respect good personal hygiene.

#### Environmental exposure controls

See section 6 and 7.

## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General information

<b>Physical state:</b>	liquid
<b>Colour:</b>	colourless
<b>Odour:</b>	odourless
<b>pH value (undiluted):</b>	approx. 2

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<b>pH value (1 %):</b>	approx. 6.5
<b>Melting point/Freezing point (°C):</b>	approx. -5
<b>Boiling temperature (°C):</b>	approx. 100
<b>Flashpoint (°C):</b>	not applicable
<b>Flammability (solid, gas):</b>	not applicable
<b>Lower explosion limit:</b>	not determined
<b>Upper explosion limit:</b>	not determined
<b>Vapour pressure (hPa):</b>	approx. 23
<b>Relative vapor density:</b>	not determined
<b>Density (20 °C):</b>	approx. 1.015
<b>Solubility:</b>	completely mixable with water
<b>Partition coefficient (KOW):</b>	not determined
<b>Ignition temperature:</b>	not determined
<b>Decomposition temperature:</b>	not determined
<b>Dynamic viscosity (mPas):</b>	< 10
<b>Particle properties:</b>	not applicable

### 9.2 Other information

#### Other safety characteristics

No other physical and chemical data has been recorded.

## SECTION 10. Stability and Reactivity

### 10.1 Reactivity

May form insoluble precipitates when mixing with cleaning agents containing anionic surfactants.

### 10.2 Chemical stability

Stable under the specified storage conditions.

### 10.3 Possibility of hazardous reactions

There are expected no hazardous reactions for intended use.

### 10.4 Conditions to avoid

No hazardous conditions known. Note the information about handling and storage in section 7.

### 10.5 Incompatible materials

none suspected

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

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### SECTION 11. Toxicological information

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

##### Acute toxicity

N,N-Dimethyl-2-hydroxypropylammoniumchloride polymer  
LD50 oral = 1672 mg/kg body weight (rat) (OECD 401)

Acute Toxicity Estimate of the mixture:  
ATE mix (oral) > 2000 mg/kg body weight

##### Skin Corrosion / Irritation

Mixture does not contain any substances with skin irritation / corrosion.

##### Serious Eye Damage / Irritation

The mixture does not meet the criteria for classification.

##### Sensitisation

Mixture does not contain any sensitising substances.

##### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mixture does not contain any substances which are classified as carcinogenic, mutagenic or toxic for reproduction.

##### Specific target organ toxicity (single exposure)

Mixture does not contain any substances with specific target organ toxicity.

##### Specific target organ toxicity (repeated exposure)

Mixture does not contain any substances with specific target organ toxicity.

##### Aspiration hazard

Not classified. Mixture does not contain any hydrocarbons.

#### 11.2 Information on other hazards

##### Endocrine disrupting properties

This mixture does not contain any substances which are identified as endocrine disrupting.

##### Other information

No further data available.

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### SECTION 12. Ecological information

The available data refer to the substances in the mixture. The mixture as a whole has not been tested.

#### 12.1 Toxicity

N,N-Dimethyl-2-hydroxypropylammoniumchloride polymer

Acute toxicity fishes:

LC50 (96 h) = 0.077 mg/L (Oncorhynchus mykiss) (OECD 203)

Acute toxicity crustacea:

EC50 (48 h) = 0.084 mg/L (Daphnia Magna) (OECD 202)

Acute toxicity algae:

EC50 (72 h) = 0.09 mg/L (Desmodesmus subspicatus) (OECD 201)

#### 12.2 Persistence and degradability

N,N-Dimethyl-2-hydroxypropylammoniumchloride polymer

Not readily biodegradable.

Hydroxyethylidenediphosphonic acid

No further relevant information available.

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

#### 12.3 Bioaccumulative potential

N,N-Dimethyl-2-hydroxypropylammoniumchloride polymer

No further relevant information available.

Hydroxyethylidenediphosphonic acid

No further relevant information available.

#### 12.4 Mobility in soil

N,N-Dimethyl-2-hydroxypropylammoniumchloride polymer

No further relevant information available.

Hydroxyethylidenediphosphonic acid

No further relevant information available.

#### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances which are identified as PBT or vPvB.

#### 12.6 Endocrine disrupting properties

This mixture does not contain any substances which are identified as endocrine disrupting.

#### 12.7 Other adverse effects

The mixture does not contain any substances which are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

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### SECTION 13. Disposal considerations

#### 13.1 Waste treatment methods

##### Recommendation

Cleaning concentrates should not be disposed of via wastewater. Hazardous waste according to European list of wastes. Dispose of in accordance with local, official regulations.

##### Waste codes/waste designations according to EWC

20 01 29 (detergents containing hazardous substances)

#### Packaging

##### Contaminated package

Hazardous waste according to European list of wastes. Dispose of in accordance with local, official regulations. Waste code 15 01 10 (packaging containing residues of or contaminated by hazardous substances)

##### Cleaned package

Non contaminated and clean packagings can be used for recycling.

### SECTION 14. Transport information

#### 14.1 UN number or ID number

3082

#### 14.2 UN Proper shipping name:

##### ADR / RID:

Environmentally hazardous substance, liquid, n.o.s. (N,N-Dimethyl-2-hydroxypropylammoniumchloride polymer)

##### IMDG-Code / ICAO-TI / IATA-DGR:

Environmentally hazardous substance, liquid, n.o.s. (N,N-Dimethyl-2-hydroxypropylammoniumchloride polymer)

#### 14.3 Transport hazard class(es)

##### ADR / RID / IMDG-Code / ICAO-TI / IATA-DGR:

9

#### 14.4 Packing group

III

#### 14.5 Environmental hazards

environmentally hazardous

#### 14.6 Special precautions for user

See section 6 and 8.

#### 14.7 Maritime transport in bulk according to IMO instruments

not applicable

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### SECTION 15. Regulatory information

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

##### EU regulations

Subject to the Regulation (EC) No. 528/2012 concerning the making available on the market and use of biocidal products.

##### National regulations

Maternity Protection Act (MuSchG): not applicable.

Major Accidents Ordinance (12. BImSchV): not applicable.

Observe employment restrictions for young people (§ 22 JArbSchG).

Water hazard class: WGK 3 (in accordance with German regulation AwSV)

#### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment has not been carried out.

### SECTION 16. Other information

#### Indication of changes

Revised sections: 1, 15

#### Hazard statements referred to in Section 2 and 3 i.a.w. Regulation (EC) No 1272/2008

Met. Corr. 1, H290 = Corrosive to metals, category 1, May be corrosive to metals.

Acute Tox. 4, H302 = Acute toxicity, category 4, Harmful if swallowed.

Skin Corr. 1A/B/C, H314 = Skin corrosion / irritation, category 1A/B/C, Causes severe skin burns and eye damage.

Eye Dam. 1, H318 = Eye damage / irritation, category 1, Causes serious eye damage.

Aquatic Acute 1, H400 = Hazardous to the aquatic environment, acute, category 1, Very toxic to aquatic life.

Aquatic Chronic 1, H410 = Hazardous to the aquatic environment, chronic, category 1, Very toxic to aquatic life with long lasting effects.

Aquatic Chronic 2, H411 = Hazardous to the aquatic environment, chronic, category 2, Toxic to aquatic life with long lasting effects.

#### Key literature references and sources for data

REACH Regulation (EC) No. 1907/2006

CLP Regulation (EC) No. 1272/2008

All data were taken from the safety data sheets of our sub-suppliers, where available. Missing data were taken from the Substance Database GESTIS of the Institute for Occupational Safety and Health of the German statutory accident insurance or from the database of the European Chemicals Agency (ECHA).

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### Legend

ABEK	Filter designation
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE mix	Acute Toxicity Estimates for mixtures
AVV	European waste list regulation
AwSV	Ordinance on systems for handling water-polluting substances
Butyl	Butyl rubber
CAS	(Registration number) Chemical Abstracts Service
CLP	Regulation on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenicity, mutagenicity, reproductive toxicity
CR	Chloroprene rubber
EC50	Median effective concentration
EG	(Registration number) European Union
ErC50	Median effective concentration
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FKM	Fluorocarbon rubber
GISCODE	Labelling system of the professional associations in the construction industry
IATA-DGR	International Air Transport Association - Dangerous Goods Regulations
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	Technical Instructions For The Safe Transport of Dangerous Goods by Air
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration of a substance leading to the death of 50% of the exposed organisms
LD50	Lethal dose of a substance that leads to death of 50% of the organisms exposed to it
MARPOL	International Convention for the Prevention of Pollution from Ships
NBR	Acrylonitrile butadiene rubber
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
NR	Natural rubber
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, bioaccumulating, toxic
PET	Polyethylene terephthalate
PTFE	Polytetrafluoroethylene
PVC	Polyvinyl chloride
REACH	Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Convention concerning International Carriage by Rail
TRGS	Technical Rules for Hazardous Substances
UN	United Nations
US-EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds
vPvB	Very persistent, very bioaccumulating
WGK	Water hazard class

### Further information

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.