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

1.1. Product identifier

Trade name

A7017 Ionic Silver Stick

Material number: CHZN2678

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

SU21 - Consumer uses: rivate households (= general public = consumers)
SU22 - Commercial uses: Public sector (administration, education, entertainment, services, crafts)
Product categories [PC]

PC8 - biocidal products (eg disinfectants, pesticides)

1.3. Details of the supplier of the safety data sheet Identification of the company

Boneco AG
Espenstrasse 85,
CH-9443 Widnau
Phone +41 (0) 71 727 83 33

Information about the substance/mixture

Telefon +41 (0) 71 727 83 33
E-Mail (sachkundige Person):
service@boneco.com

1.4. Emergency telephone number

Schweizerisches Toxikologisches Informationszentrum
Phone: 145 / +41 44 251 51 51

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according CLP regulation (Regulation (EC) No. 1272/2008, as amended)

Hazard class	Hazard category	H-phrase
Acute aquatic toxicity	Category 1	Very toxic to aquatic life.
Chronic aquatic toxicity	Category 1	Very toxic to aquatic life with long lasting effects.

M-Factor (Acute aquatic toxicity) :	10

2.2. Label elements

Labelling according CLP regulation (Regulation (EC) No. 1272/2008, as amended)

Hazard pictograms

Signal word

Warning

Hazard statements

H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3. Other hazards

No additional hazards are known except those derived from the labelling.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

Reaction mass of silver chloride (20%) and titanium dioxide (80%)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated clothing and shoes.

After inhalation

Immediately remove to fresh air. Consult a physician if irritating symptoms develop and persist.

After contact with skin

In case of contact, immediately flush skin with soap and plenty of water.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
In case of irritation consult an occulist

After ingestion

Rinse mouth with water.
Drink 1 or 2 glasses of water.
Call a physician.

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

Symptoms

Treat symptomatically.

Hazards

No additional risks are known.

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

Treatment

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet
Alcohol-resistant foam

Extinguishing media that must not be used for safety reasons

Dry powder
Carbon dioxide (CO_2)
High volume water jet

5.2. Special hazards arising from the substance or mixture

In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO_2)
Nitrogen oxides (NO_x)

5.3. Advice for firefighters

Special protective equipment for firefighting

Self-contained breathing apparatus

Further information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation.

6.2. Environmental precautions

Contain spillage
Do not allow spilt product to enter soil or waterways

6.3. Methods and material for containment and cleaning up

Take up mechanically
Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Additional information

For personal protection see section 8.
Information regarding Waste Disposal, see chapter 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with eyes and skin.
Ensure adequate ventilation.
Take off dirty, soaked clothes immediately.
Avoid dust formation and dust deposits.
The usual precautionary measures should be observed when handling chemicals.

General protective measures

Avoid contact with eyes and skin.

Hygiene measures

Do not smoke, eat or drink at work.
Wash hands before breaks and at the end of work.
Clean hands and face after work and before breaks.

Advice on protection against fire and explosion

No special measures necessary.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep away from direct sunlight.
Keep out of the reach of children.
Do not store together with food.

7.3. Specific end use(s)

No further recommendations.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Exposure limit values are not available.

DNEL/DMEL values

DNEL/DMEL values are not available.

PNEC values

PNEC values are not available.

8.2. Exposure controls

General protective measures

Avoid contact with skin and eyes.

Respiratory protection :	Use respiratory protection in case of insufficient exhaust ventilation or prolonged exposure
Hand protection :	Rubber gloves With solid dry substances permeation is not to be expected, therefore the breakthrough-time for this protective glove has not been measured.
Eye protection :	Tightly fitting safety goggles
Body protection :	Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state :	solid
Form :	fine powder
Particle size : :	1,23 µm
Colour :	white
Odour :	characteristic
Odour threshold :	Not tested
pH value :	Not applicable
Melting range :	1.830 - 1.850 °C
Boiling range :	2.500 - 3.000 °C
Sublimation point :	Not applicable
Flash point :	Not applicable
Evaporation rate :	Not applicable
Lower explosion limit :	not tested.
Upper explosive limit :	not tested.
Combustion number :	BZ1 Does not catch fire
Minimum ignition energy :	not tested.
Vapour pressure :	Not applicable
Vapour density relative to air :	Not applicable
Relative Density:	ca. 4,4 (20 °C) Method : OECD Test Guideline 109
Solubility in water :	insoluble

Soluble in ... :	fat not tested.
Octanol/water partition coefficient (log Pow) :	Not applicable
Ignition temperature :	Not applicable
Self-ignition temperature :	not tested.
Thermal decomposition :	Stable under normal conditions. No decomposition if used as directed.
Viscosity (dynamic) :	Not applicable
Viscosity (kinematic) :	not tested.
Explosive properties :	Explosive according to EU supply regulations : Not explosive
Oxidizing properties :	Type of oxidizing effect : The substance or mixture is not classified as oxidizing.

9.2. Other information

Density :	not tested.
Bulk density :	ca. 1 g/cm3 (25 °C) Method : ISO 60

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

When used and handled as intended, none.

10.4. Conditions to avoid

Keep away from heat.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

No decomposition if used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information related to the product itself:

Acute oral toxicity :	LD50 > 5.000 mg/kg (Rat) LDLo > 2.000 mg/kg (Rat)
Acute dermal toxicity :	LD50 > 2.000 mg/kg (Rat) Method : OPPTS 870.1200
Acute inhalation toxicity :	LC50 > 200 mg/l (1 h, Rat) LC50 > 2,07 mg/l (4 h, Rat) Method : OPPTS 870.1300
Irritant effect on skin :	No skin irritation (Rabbit) Method : OECD Test Guideline 404
Irritant effect on eyes :	slight irritant effect - does not require labelling (rabbit eye)
Sensitization :	non-sensitizing Method : OECD Test Guideline 406
Repeated dose toxicity:	not tested.
Genetic toxicity in vivo :	Chromosome Aberration Test negative HGPRT assay negative Micronucleus test negative
Assessment of mutagenicity :	In vivo tests did not show mutagenic effects
Assessment of carcinogenicity :	No information available.
Assessment of toxicity to reproduction :	No information available.
Assessment of teratogenicity :	No information available.
Specific target organ toxicity (STOT) - single exposure :	not tested.
Specific target organ toxicity (STOT) - repeated exposure :	not tested.

Remarks

Long term absorption (5-10 years) of silver or its compounds by inhalation or ingestion may produce generalised 'Argyria' - a permanent blue/grey discolouration of the skin.

SECTION 12: Ecological information

12.1. Toxicity

Information related to the product itself:

Fish toxicity :	LC50 0,5 mg/l (96 h, Fish)
Daphnia toxicity :	EC50 0,074 mg/l (48 h, Daphnia magna (Water flea))
Algae toxicity :	EC50 0,3 mg/l (72 h, Selenastrum capricornutum (green algae))
Bacteria toxicity :	not tested.

12.2. Persistence and degradability

Information related to the product itself:

Physico-chemical eliminability :	not available
Biodegradability :	Not applicable
Chemical oxygen demand (COD) :	not tested.
Biochemical oxygen demand (BOD5) :	not tested.

12.3. Bioaccumulative potential

Information related to the product itself:

Bioaccumulation:	not available

12.4. Mobility in soil

Information related to the product itself:

Transport and distribution between environmental compartments :	not available

Behaviour in environmental compartments

no data available

12.5. Results of PBT and vPvB assessment

Information related to the product itself:

no data available

12.6. Other adverse effects

Information related to the product itself:

Additional ecotoxicological remarks

The product should not be allowed to enter drains, water courses or the soil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product

In accordance with local regulations, take to hazardous waste disposal site or chemical/physical treatment plant

Uncleaned packaging

Regulations concerning reuse or disposal of used packaging materials must be observed.

SECTION 14: Transport information

Section 14.1. to 14.5.

ADR

UN no.	UN 3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s):	Silver chloride
Class:	9
Primary risk:	9
Packing group:	III
Hazard no. :	90
Remarks	Shipment permitted

ADN

UN no.	UN 3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s):	Silver chloride
Class:	9
Primary risk:	9
Packing group:	III
Remarks	Shipment permitted

RID

UN no.	UN 3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s):	Silver chloride
Class:	9
Primary risk:	9
Packing group:	III
Hazard no. :	90
Remarks	Shipment permitted

IATA

UN no.	UN 3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s):	Silver chloride
Class:	9
Primary risk:	9
Packing group:	III
Remarks	Shipment permitted

IMDG

UN no.	UN 3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s):	Silver chloride
Class:	9
Primary risk:	9
Packing group:	III
Remarks	Shipment permitted
Marine pollutant:	Marine Pollutant
Hazard inducer/Marine pollutant:	Silver chloride
EmS :	F-A S-F

14.6. Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code (International Bulk Chemicals Code)

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

Other regulations

Observe national specific workplace risk prevention and health regulations.
Take note of the national regulations on the protection of young people at work.

15.2. Chemical safety assessment

No Chemical Safety Assessment (CSA) is yet available for the substance, or for the component substances, contained in this product.

SECTION 16: Other information

Observe national and local legal requirements

Legend

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AOX	Adsorbable organic bound halogens
CAS	Chemical Abstracts Service
DMEL	Derived Minimal Effect Level (genotoxic substances)
DNEL	Derived No Effect Level
EC50	Half maximal effective concentration
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal Concentration 50%
LD50	Lethal Dose 50%
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOEC	Non Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative, Toxic
PEC	Predicted Environmental Concentration
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	International Rule for Transport of Dangerous Substances by Railway
SVHC	Substances of Very High Concern
vPvB	very Persistent and very Bioaccumulative

Decimal notation: "thousands" places are identified with a dot (for example, "2.000 mg/kg" means "two thousand mg/kg"). Decimal places are identified with a comma (for example, "1,35 g/cm3" means "one point three five g/cm3").