

Pool-i.d. GmbH
76344 Eggenstein

Date printed 15.04.2013, Revision 15.04.2013

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SECTION 1: Identification of the substance / preparation and of the company

1.1 Product identifier

Chloride No. 2 Photometer

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

1.2.1 Relevant uses

Reagent for analysis of water

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Pool-i.d. GmbH

Daimlerstrasse 20
76344 Eggenstein / GERMANY
Phone +49(0)721-782029-0
Fax +49(0)721-782029-11
Homepage www.pool-id.com
E-mail info@pool-id.com

Address enquiries to

Technical information

info@pool-id.com

Safety Data Sheet

sdb@chemiebuero.de

1.4 Emergency phone

Advisory body

+49 (0)89-19240 (24h) (english)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

see SECTION 16

2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC

Hazard symbols



Harmful

R-phrases

R 42/43: May cause sensitisation by inhalation and skin contact.
R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The product is classified and required to be labelled in accordance with EC-Directives

2.2 Label elements

Labelling according to Regulation 67/548/EEC or 1999/45/EC

Hazard symbols



Harmful

Contains:

Dipotassium peroxodisulphate

R-phrases

R 42/43: May cause sensitisation by inhalation and skin contact.
R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases

S 2: Keep out of the reach of children.
S 22: Do not breathe dust.
S 36/37: Wear suitable protective clothing and gloves.
S 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 46: If swallowed, seek medical advice immediately and show this container or label.
S 63: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
S 61: Avoid release to the environment. Refer to special instructions, safety data sheets.

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2.3 Other hazards

Environmental hazards

Does not contain any PBT or vPvB substances.

Other hazards

Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Product-type:

The product is a mixture.

Range [%]	Substance
1 - <5	Dipotassium peroxodisulphate CAS: 7727-21-1, EINECS/ELINCS: 231-781-8, EU-INDEX: 016-061-00-1 GHS/CLP: Ox. Sol. 3 - H272 - Acute Tox. 4 - H302 - Eye Irrit. 2 - H319 - STOT SE 3 - H335 - Skin Irrit. 2 - H315 - Resp. Sens. 1 - H334 - Skin Sens. 1 - H317 EEC: Xn-O, R 8-42/43-36/37/38-22
1 - <5,5	Boric acid CAS: 10043-35-3, EINECS/ELINCS: 233-139-2, EU-INDEX: 005-007-00-2, ECB-Nr.: 01-2119486683-25-XXXX GHS/CLP: Repr. 1B - H360FD EEC: T, R 60-61
1 - <2,5	Silver nitrate CAS: 7761-88-8, EINECS/ELINCS: 231-853-9, EU-INDEX: 047-001-00-2 GHS/CLP: Ox. Sol. 2 - H272 - Skin Corr. 1B - H314 - Aquatic Chronic 1 - H410 EEC: O-C-N, R 8-34-50/53

Comment on component parts

SVHC (Candidate List of Substances of Very High Concern for authorisation) \geq 0,1%
CAS 10043-35-3 - Boric acid
For full text of H-statements and R-phrases: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

No dangerous reactions known if used as directed.

Inhalation

Ensure supply of fresh air.
Remove the victim into fresh air and keep him calm.
Consult a doctor immediately.

Skin contact

In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion

Consult a doctor immediately.
Rinse out mouth and give plenty of water to drink.
Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

All extinguishing media are suitable but method must take into account the surrounding area to minimize dispersion.

Extinguishing media that must not be used

Full water jet

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5.2 Special hazards arising from the substance or mixture

Unknown risk of formation of toxic pyrolysis products.
Sulphur oxides (SO_x).
Nitrogen oxides (NO_x).
Boron oxide (B₂O₃).
Metallic oxides.

5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.
Use self-contained breathing apparatus.

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Avoid dust formation.
Use personal protective equipment.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

6.3 Methods and material for containment and cleaning up

Take up mechanically. Avoid production of dust.
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Avoid the formation and deposition of dust.
Dust deposits that cannot be avoided must be taken up regularly.

Wash hands before breaks and after work.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Do not store together with oxidizing agents.
Do not store together with food and animal food/diet.
Keep container tightly closed.
Store in a dry place.
Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

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SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Range [%]	Substance
1 - <5,5	Boric acid
	CAS: 10043-35-3, EINECS/ELINCS: 233-139-2, EU-INDEX: 005-007-00-2, ECB-Nr.: 01-2119486683-25-XXXX
	Long-term exposure: 2 mg/m ³ , TWA (inhalable fraction, listed under Borate compounds, inorganic)
1 - <2,5	Silver nitrate
	CAS: 7761-88-8, EINECS/ELINCS: 231-853-9, EU-INDEX: 047-001-00-2
	Long-term exposure: 0,01 mg/m ³ , as Ag

Ingredients with occupational exposure limits to be monitored (EU)

Range [%]	Substance / EC LIMIT VALUES
1 - <2,5	Silver nitrate
	CAS: 7761-88-8, EINECS/ELINCS: 231-853-9, EU-INDEX: 047-001-00-2
	Eight hours: 0,01 mg/m ³

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation.
Eye protection	safety glasses
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact Butyl rubber, >480 min (EN 374).
Skin protection	Not required under normal conditions.
Other	Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of these equipments to chemicals should be ascertained with the respective supplier.
Respiratory protection	Respiratory protection in the case of dust formation. short term: filter apparatus, filter P1
Thermal hazards	not determined
Delimitation and monitoring of the environmental exposition	See SECTION 6+7.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	tablet
Color	white
Odor	characteristic
Odour threshold	not determined
pH-value	9,6 (4,8 g/l) Aqueous solution
pH-value [1%]	not determined
Boiling point [°C]	not determined
Flash point [°C]	not applicable
Flammability [°C]	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidizing properties	no
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/ml]	not determined
Bulk density [kg/m ³]	not determined
Solubility in water	partially soluble
Partition coefficient [n-octanol/water]	not determined
Viscosity	not applicable
Relative vapour density determined in air	not applicable
Evaporation speed	not applicable
Melting point [°C]	not determined
Autoignition temperature [°C]	not applicable
Decomposition temperature	not applicable

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

Reactions with reducing agents.

10.4 Conditions to avoid

Warming

Contact with moisture.

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

No dangerous reactions known if used as directed.

In the event of fire: See SECTION 5.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Range [%]	Substance
1 - <2,5	Silver nitrate, CAS: 7761-88-8 LD50, oral, Rat: 1173 mg/kg.
1 - <5	Dipotassium peroxodisulphate, CAS: 7727-21-1 LD50, oral, Rat: 802 mg/kg (RTECS).
1 - <5,5	Boric acid, CAS: 10043-35-3 LD50, oral, Rat: 2660 mg/kg bw.

Serious eye damage/irritation	not determined
Skin corrosion/irritation	not determined
Respiratory or skin sensitisation	not determined
Specific target organ toxicity — single exposure	not determined
Specific target organ toxicity — repeated exposure	not determined
Mutagenicity	not determined
Reproduction toxicity	not determined
Carcinogenicity	not determined
General remarks	

Toxicological data of complete product are not available.
The product was classified on the basis of the calculation procedure of the preparation directive.
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 12: Ecological information

12.1 Toxicity

Range [%]	Substance
1 - <2,5	Silver nitrate, CAS: 7761-88-8 LC50, (96h), Oncorhynchus mykiss: 0,006 mg/l. LOEC, (168h), Oncorhynchus mykiss: 0,007 mg/l. EC50, (48h), Daphnia magna: 0,0006 mg/l. LC50, (96h), Leuciscus idus: 0,029 mg/l. NOEC, (96h), Oncorhynchus mykiss: 0,108 mg/l.
1 - <5,5	Boric acid, CAS: 10043-35-3 EC50, (48h), Daphnia magna: 133 mg/l. LC50, (96h), fish: 279 mg/l. LC0, (96h), Lepomis macrochirus: > 1.021 mg/l. LC50, (21d), Daphnia magna: 53,2 mg/l.

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

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12.5 Results of PBT and vPvB assessment

not applicable

12.6 Other adverse effects

Ecological data of complete product are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

For recycling, consult manufacturer.

Waste no. (recommended)

160303*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended)

150102
150107

SECTION 14: Transport information

14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

14.2 UN proper shipping name

Transport by land according to ADR/RID

UN 3077 Environmentally hazardous substance, solid, n.o.s. (Silver nitrate) 9 III

- Classification Code

M7

- Label



- ADR LQ

5 kg

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 3 (E)

Inland navigation (ADN)

UN 3077 Environmentally hazardous substance, solid, n.o.s. (Silver nitrate) 9 III

- Classification Code

M7

- Label



Marine transport in accordance with IMDG

UN 3077 Environmentally hazardous substance, solid, n.o.s. (Silver nitrate) 9 III MARINE POLLUTANT

- EMS

F-A, S-F

- Label



- IMDG LQ

5 kg

Air transport in accordance with IATA

UN 3077 Environmentally hazardous substance, solid, n.o.s. (Silver nitrate) 9 III

- Label



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14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name



14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available.

SECTION 15: Regulatory information

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

EEC-REGULATIONS 1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC

TRANSPORT-REGULATIONS DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

- **Observe employment restrictions for people** Observe employment restrictions for young people.
Observe employment restrictions for mothers-to-be and nursing mothers.

- **VOC (1999/13/CE)** not applicable

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

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

Hazard pictograms



Signal word

DANGER

Resp. Sens. 1 - H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sens. 1 - H317 May cause an allergic skin reaction.

Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.

Classification procedure

Classification according to conversion table Annex VII 1272/2008/EC

16.2 R-phrases (SECTION 3)

R 60: May impair fertility.

R 61: May cause harm to the unborn child.

R 8: Contact with combustible material may cause fire.

R 42/43: May cause sensitisation by inhalation and skin contact.

R 36/37/38: Irritating to eyes, respiratory system and skin.

R 22: Harmful if swallowed.

R 34: Causes burns.

R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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16.3 Hazard statements (SECTION 3)

H360FD May damage fertility. May damage the unborn child.
H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H314 Causes severe skin burns and eye damage.
H410 Very toxic to aquatic life with long lasting effects.

16.4 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
ELINCS = European List of Notified Chemical Substances
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform Chemical Information Database
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
TLV@TWA = Threshold limit value – time-weighted average
TLV@STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

Modified position

none

16.5 Other information

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