Material safety data sheet

per appendix II REACH-regulation No. 1907/2006 Trade name: Aqua Power I Drinking water, component B

Aqua Power
Daniel BADER

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1 Substance or mixture and company designation

1.1 Trade name:

Aqua Power I Drinking water, component B

BfR-Reg.-No. 6467638

BAuA-Reg.-No.: N-74455

For product type 2 (Disinfection agent for private use and in the public health sector and other biocide products)
For product type 3 (Biocide product for hygiene in the veterinary realm)
For product type 4 (Disinfection agent in the area of foods and feed)
For product type 5 (Drinking water disinfection agent)
For product type 11 (Preservative for liquids in cooling and processing systems)
For product type 12 (slimicides)

1.2 Use of the material:

Component to produce chlorine dioxide solution; together with component A

1.3. Manufacturer

Daniel Bader
Marburgerstraße 94
A-8435 Wagna
Tel. 0043 (0) 3452-73 0 73
E-mail: office@bader-group.eu

Competent person:
Daniel Bader
office@bader-group.eu

1.3 Emergency number

Poison Information Centre for
Health, Austria GmbH
Stubenring 6
A-1010 Vienna

Tel. No. +43 1 406 43 43

2 Possible hazards

2.1 Mixture classification

per regulation (EU) 1272/2008

Oxidising solids, category 2,	H272
Acute oral toxicity, category 4,	H302
Corrosive/irritant to skin, category 2,	H315
Severe eye injury/irritation, category 2,	H319
Sensitisation of airways, category 1,	H334
Sensitisation of skin, category 1,	H317
Specific target organ toxicity (single exposure): Respiratory tract irritant, category 3,	H335

2.2 Labelling elements

GHS labelling appendix 1 of the regulation (EU) 1272/2008

GHS03 GHS07 GHS08

Signal word: Hazard

H-sentences:
H272: Can intensify fire, oxidising agent.
H302: Injurious to health if swallowed.
H315: Causes skin irritation.
H317: Can cause allergic reactions.
H319: Causes severe eye irritation.
H334: Inhalation can cause allergies, asthmatic symptoms or breathing difficulties.
H335: Can irritate airways.

P-sentences:

P280: Wear protective gloves / protective clothing / eye protection / face protection.

P262: Avoid contact with eyes, skin and clothing.

P303 + P361 + P353 IN CASE OF SKIN CONTACT (or hair): Immediately remove all contaminated, soaked clothing. Wash /shower skin with water.

P304+P340 Upon inhalation: Lead person to fresh air and provide unimpeded breathing.

P305+P351+P338: UPON CONTACT WITH EYES: Gentle eye flushing with water for several minutes. If possible remove any contact lenses. Continue flushing.

P308 + P313 Upon exposure or if affected: Consult a physician / obtain medical help. P501 Take contents/ container to a recognized waste disposal facility.

P 102 Keep out of reach of children.

Special labelling
Use biocide products carefully. Always read label and product information before use.

3. Composition of the mixture

3.1 Substances
This product is a mixture

3.2 Mixture
Hazardous contents:

Sodium peroxide sulphate	< 99%
EU number:	231-892-1
CAS number:	7775-27-1
REACH registered:	01-2119495975-15
Pentapotassium-bis(peroxymonosulphate)-bis(sulphate)	< 1%
EU number:	274-778-7
CAS number:	70693-62-8
REACH registered:	01-2119495676-19

4. First aid measures

4.1 Description of first aid measures
General instructions
Immediately remove contaminated, soaked clothing. Never allow anything to enter the mouth of a nauseous person. Take the victim from the hazardous area and lay them down. In case of discomfort, seek medical advice (if possible, present this label).

After inhaling:
Supply fresh air generously and call a physician to be safe.

Following contact with skin:
Wash with water immediately.
Call a physician in case of sustained skin irritation.

Following eye contact:
Use both hands to open eye wide and flush intensely for at least 15 minutes with flowing water. Immediately consult an ophthalmologist.

After swallowing
flush mouth with water and drink generous amounts of water. Place a vomiting person who is resting on their back into a stable, lateral position. DO NOT induce vomiting. If swallowed, immediately call a physician and present the packaging or label.

4.2 Most significant symptoms and effects appearing acutely and delayed
Corrosive effect on skin and mucous membranes

5 Measures to fight fire

5.1 Extinguishing agents
Suitable extinguishing agents
Attune extinguishing actions to the surroundings.

Unsuited extinguishing agents for reasons of safety
Full stream of water

5.2 Hazards deriving in particular from the mixture
Oxidising.
A fire can release: sulphur dioxide (SO2)

Cool closed containers near the source of the fire with water mist. Fight surrounding fire with suitable extinguishing agent. Flood small quantities of corrosive product with water (displace water with foaming agent for better penetration). Remove unaffected product. Quell smoke with water.

5.3 Instructions for combating fire
Wear self-contained breathing apparatus.
Wear complete protective suit.
Do not inhale gases from fire.

6 Measures for unintentional release
6.1 Person-related protective measures
Wear protective equipment. Keep unprotected persons away.
Provide adequate ventilation.
Avoid dust formation.

6.2 Environmentally protective measures
Prevent from reaching the sewer/surface water/ground water.

6.3 Methods and materials for retention and cleaning
Carefully take up mechanically. Avoid dust formation. Flush away small residues with copious amounts of water.

7 Handling and storage
7.1 Protective measures for safe handling
Good de-dusting.
Handling per laboratory guidelines of BG-Chemie, Keep ignition sources away – No smoking.
Keep away from flammable substances.

7.2 Conditions for safe storage while considering incompatibilities
Store in cool, dark place.
Do not store together with bases.
Store separate from foods.
Store separate from flammable substances.
Storage class
5.1B Oxidising hazardous substance (TRGS 510, Storage of hazardous substances in portable containers)

7.3 Specific end uses
This product serves as component B to produce a < 0.3% chlorine dioxide solution, together with component A.

8 Limiting and monitoring exposure /personal protective equipment

Personal protective equipment:

Hand protection: Chemical resistant protective gloves (EN 374)

Glove material: Butyl rubber, gloves of PVC.

The selection of a suitable glove depends not only on the material, but also on other quality features and differs from manufacturer to manufacturer.
Because the product represents a preparation comprising a number of materials, the durability of the glove materials cannot be determined in advance and must therefore be tested before use.

Penetration time for the glove material:
The exact penetration time is to be provided by the glove manufacturer and complied with.

Eye protection: Tightly sealing safety glasses

Bodily protection: Protective work clothes

8.1 Parameters to be monitored

7775-27-1 Sodium persulphate
MAK (DFG) see section IV, Danger of sensitisation of airways and skin

9 Physical-chemical properties

9.1 Information on the basic physical and chemical properties

Form:	powder
Colour:	white
Odour:	odourless
Melting point/melting range:	Boiling point / boiling range
not determined (decomposition)	not applicable

9.2 Other information

Flash point:	not applicable
Self-ignition	The product is not self-ignitable
Danger of explosion:	The product is not explosive.
Density:	1.08 g/cm³
Solubility in water:	100 g/l at 20 °C
pH value at 100 g/l at 20°C	1.9

10 Stability and reactivity

10.1 Reactivity
Reacts with bases

10.2 Chemical stability
Stable under indicated storage conditions

10.3 Possibility of dangerous reactions
Oxidising
Self-accelerating decomposition possible at temperatures upward of approx. 80 °C, significant decomposition at temperatures > 60 °C.

10.4 Conditions to be avoided

Moisture, temperatures > 60 °C

10.5 Incompatible materials
Reducing agents, flammable substances, alcohols, heavy metal salts

10.6 Dangerous decomposition products
Sulphur oxides (SOx)

11 Toxicological information
11.1 Information on toxicological effects

Classification-relevant LD/LC50 values:

Oral	LD50	500 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalation	LC50/4 h	1.85 mg/l (rat)

Irritation:

Skin:	Irritates skin and mucous membranes.
Eye:	Intensely irritating with danger of serious eye injury.
Airways:	Mucous membrane irritation, cough, shortness of breath. Pulmonary oedema possible following a latent time

Sensitisation:
Sensitisation possible from inhalation.
Sensitisation possible from skin contact.

Additional toxicological indications:
After swallowing, irritation of the mouth, throat, oesophagus and gastro-intestinal tract.
Swallowing can cause nausea and vomiting.

12 Environmental information

Fish toxicity
LC50 771 mg/l/96 h (Onchorhynchus mykiss)

Daphnia toxicity
EC50 133 mg/l/48 h (Daphnia magna)

Remark:
Forms poisonous decomposition products with water.

General instructions:
Water hazard class 1 (list classification) weakly water hazardous; prevent from reaching ground water, bodies of water or sewer.

13 Instructions for disposal

13.1 Procedure for waste handling

Product:
Recommendation: Disposal is regulated differently in countries and communities, therefore the type of disposal is to be queried at the local authorities (city offices).

Unpurified packaging:
Recommendation: Disposal per official regulations.

14 Information on transport

14.1 UN number

1479

14.2 Regular UN shipping designation

ADR/RID
FLAMATORY (OXIDISING) SOLIDS, N.A.G.

IMDG-Code / ICAO-TI / IATA-DGR
OXIDIZING SOLIDS, NOS

EMS number: F-A,S-Q

14.3 Transport hazard classes

5.1 Flammatory (oxidising) substances [O2]

14.4 Packaging group

Packaging group: III (slight danger)

Kemler number: 50

14.5 Environmental hazards
Marine pollutant: No

14.6 Tunnel limitations
Passage prohibited through tunnels of category E.

15 Legal regulations
15.1 Regulations as to safety, health and environmental protection/ specific legal requirements for the substance or mixture
The product is classified and labelled according to the criteria of guidelines 67/548/EWG or 1999/45/EU.

National requirements:
Instructions on employment restriction:
Note employment restrictions for youths per § 22 JArbSchG.
Note employment restrictions for expectant or nursing mothers (MuSchRiV).

Hazardous incident ordinance:	Appendix I, No. 3
Water hazard class:	WHC 1 (list classification) weakly hazardous to water.

Other regulations, limitations and prohibition ordinances:
TRGS 510, storage of hazardous materials in portable containers

16 Other information

Legend:

ADR	European agreement on the international carriage of hazardous goods on roads
CAS	Chemical Abstracts Service
EU	European Union
IATA-DGR	International Air Transport Association-Dangerous Goods Regulations
ICAO-TI	International Civil Aviation Organization-Technical Instructions
IMDG-Code	International Maritime Code for Dangerous Goods
IUCLID	International Uniform ChemicaL Information Database
LC	Lethal concentration
LD	Lethal dose
RID	Provision for international train carriage of hazardous goods TRGS
TRGS	Technical regulations for hazardous substances
WHC	Water hazard class

The information given is based on the current state of our knowledge, but it does not represent any certainty as to product properties and does not justify any contractual, legal relationship.