BacTerminator Water
BacTerminator Water Concentrate

SAFETY DATA SHEET

According to (EC) No. 1907/2006

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

1.1. Product identifier:

BacTerminator Water

BacTerminater Water Concentrate

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

For disinfection of drinking water (electrochemically activated water (ECA water).

1.3. Details of the supplier of the safety data sheet:

Adept Water Technologies A/S
Ellekær 6
DK-2730 Herlev Tel.: +45 88 70 85 25
Responsible person for the safety data sheet (e-mail): mail@adeptwatertech.com

1.4. Emergency telephone number:

NHS (England or Wales): Dial 111 or 0845 4647 NHS 24 (Scotland): Dial 111
UK: + 44 844 892 0111 (24 hrs); E-mail: UKREACHCA@hse.gsi.gov.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture:

CLP (1272/2008): None

2.2. Label elements:

None.

2.2. Other hazards:

None known.

PBT/vPvB: No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures: Drinking water containing < 0.1% sodium chloride.

% w/w	Substance name	CAS-no.	EC-no.	Index-no.	REACH reg.-no.	Classification	Note
<0.2	Hypochlorous acid	7790-92-3	232-232-5	-	-	None	-
<0.2	Sodium hypochlorite*	7681-52-9	231-668-3	017-011-00-1	-	Skin Corr. 1A;H314 Eye Dam. 1;H318 Aquatic Acute 1;H400 (M=10) EUH031	1

1) The substance has an occupational exposure limit.
* May release active chlorine in very small amounts.

Wording of hazard statements - see section 16.

SECTION 4: First-aid measures

4.1. Description of first aid measures:

Inhalation: Move the affected person to fresh air. If symptoms persist: Seek medical advice.
Skin contact: Remove all contaminated clothing. Wash skin with water and mild soap. If irritation persist: Seek medical advice.
Eye contact: Flush with water or physiological salt water, holding eyelids open; remember to remove contact lenses, if any.
Ingestion: Rinse mouth and drink plenty of water. Do not induce vomiting. If symptoms persist: Seek medical advice.

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

May cause slight irritation of skin, eyes and airways.

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

Show this safety data sheet to a physician or emergency ward.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media:
Not relevant.
5.2. Special hazards arising from the substance or mixture:
Not combustible.
5.3. Advice for firefighters:
Not relevant.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:
Ventilate area of spill.
6.2. Environmental precautions:
ECA water can be emptied into drains. By release of large quantities into the environment inform appropriate authorities in accordance with local regulations.
6.3. Methods and material for containment and cleaning up:
None.
6.4. Reference to other sections:
See references above.

SECTION 7: Handling and storage

7.1. Precautions for safe handling:
None.
7.2. Conditions for safe storage, including any incompatibilities:
Store in a tightly closed container of plastic at 5-35°C (storage time: 24 months).
7.3. Specific end use(s):
See section 1.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters:
Occupational exposure limits (EH40/2005 with later amendments):

Substance	**8-hour TWA**	**15-min STEL**	**Comments**
Chlorine (released from sodium hypochlorite)	-	0.5 ppm/1.5 mg/m^3	-

DNEL:	Exposure	Value	Population	Effects
Sodium hypochlorite	Inhalation, acute	3.1 mg/m^3	Worker	Local/Systemic
	Inhalation, long term	1.55 mg/m^3	Worker	Local/Systemic
	Inhalation, acute	3.1 mg/m^3	Consumer	Local/Systemic
	Inhalation, long term	1.55 mg/m^3	Consumer	Local/Systemic

PNEC:	Medium	Value
Sodium hypochlorite:	Freshwater	0.21 µg/l
	Marine water	0.042 µg/l
	Intermittent release	0.0109 mg/l
	Freshwater sediment	No exposure
	Marine water sediment	No exposure
	Soil	No exposure
	STP	4.69 mg/l
	Secondary poisoning	11.1 mg/kg food

8.2. Exposure controls:
Appropriate engineering controls: Provide sufficient ventilation.
Personal protective equipment:
Inhalation: Normally not required at sufficient ventilation.
Skin: Normally not required. Long term skin contact: Wear protective gloves of nitrile rubber (EN 374).
Eyes: Normally not required.
Environmental exposure controls: None particular.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

Appearance:	Clear and transparent liquid
Odour:	Slight chlorine
Odour threshold:	Not determined
pH:	6.5-8.0
Melting point / freezing point (°C):	0
Initial boiling point and boiling range (°C):	100
Decomposition temperature (°C):	Not determined
Flash point (°C):	Not relevant
Evaporation rate:	Not determined
Flammability (solid, gas):	Not relevant
Upper/lower flammability or explosive limits (vol-%):	Not relevant
Vapour pressure (Pa):	2.33 (water)
Vapour density (air=1):	Not determined
Relative density (g/ml):	1.000
Solubility:	Completely miscible with water
Partition coefficient: n-octanol/water, Log K_{ow}:	Not determined
Auto-ignition temperature (°C):	Not relevant
Viscosity:	Not determined
Explosive properties:	Not determined
Oxidising properties:	Not relevant
9.2. Other information:	None relevant

SECTION 10: Stability and reactivity

10.1. Reactivity:
No available data.
10.2. Chemical stability:
Stable under normal conditions (see section 7).
10.3. Possibility of hazardous reactions:
None known.
10.4. Conditions to avoid:
None known.
10.5. Incompatible materials:
Sodium hypochorite liberates toxic gas in contact with acids.
10.6. Hazardous decomposition products:
None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects:

Hazard class	**Data** (for hypochlorous acid ~ salts of hypochlorite)	**Test**	**Data source**
Acute toxicity:			
Inhalation	LC_{50} (rat) > 10.3 mg/l	No data	IUCLID
Dermal	LD_{50} (rabbit) > 10.000 mg/kg	No data	IUCLID
Oral	LD_{50} (rat) = 8200 mg/kg	No data	IUCLID
Corrosion/irritation:	Skin irritation, rabbit	OECD 404	IUCLID
	Eye corrosion, man	No data	IUCLID
Sensitization:	Skin sensibilisation, man	Patch	IUCLID
CMR:	No mutagenicitet, rat, oral, 900 mg/kg	No data	IUCLID
	No carcinogen effects in rodents, oral	No data	IUCLID
	No effect on fertility/offspring, rodents	No data	IUCLID

SECTION 11: Toxicological information (continued)

Information on likely routes of exposure: Ingestion.
Symptoms:
Inhalation: Inhalation of vapours are unlikely during normal use.
Skin: Repeated exposure might cause slight irritation.
Eyes: May cause irritation with redness.
Ingestion: None known.
Chronic effects: None known.

SECTION 12: Ecological information

12.1. Toxicity:

Aquatic	**Data** (for sodium hypochlorite)	**Test (Media)**	**Data source**
Fish	LC_{50} (Oncorhynchus mykiss, 96h) = 0.2 mg/l	U.S. EPA, 1975	ECHA
Daphnia	EC_{50} (Daphnia magna, 48h) = 0.141 mg/l	OECD 202	ECHA
Algea	EC_{50} (Pseudokirchnerella subcapitata, 72h) = 0.0365 mg/l	OECD 201	ECHA

12.2. Persistence and degradability:
Sodium hypochlorite is inorganic. Methods are missing for determining the biodegradability for inorganic substances.
Half-life of hypochlorous acid is 48 Hours.
12.3. Bioaccumulative potential:
No bioaccumulation expected.
12.4. Mobility in soil:
No relevant available data.
12.5. Results of PBT and vPvB assessment:
No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.
12.6. Other adverse effects:
No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods:
Not considered as hazardous waste. Disposal should be according to local, state or national legislation.
EWC-code:
19 09 99 (residues)

SECTION 14: Transport information

Not dangerous goods according to ADR/RID/IMDG/IATA.
14.1. UN-no.: None.
14.2. UN proper shipping name: None.
14.3. Transport hazard class(es): None.
14.4. Packing group: None.
14.5. Environmental hazards: None.
14.6. Special precautions for user: None.
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code: Not relevant.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:
REGULATION (EU) No 528/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 May 2012 concerning the making available on the market and use of biocidal products.
Product type 5: Drinking water.
Active substance: Active chlorine generated from sodium chloride by electrolysis < 0.2% (< 2000 ppm)
15.2. Chemical Safety Assessment:
No CSR.

SECTION 16: Other information

Hazard statement mentioned in section 3:
EUH031: Contact with acids liberates toxic gas.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H400: Very toxic to aquatic life.
Abbreviations:
CMR = Carcinogenicity, mutagenicity and reproductive toxicity.
CSR = Chemical Safety Report
DNEL = Derived No-Effect Level
EC_{50} = Effect Concentration 50%
FW = Fresh Water
LC_{50} = Lethal Concentration 50%
LD_{50} = Lethal Dose 50%
PBT = Persistent, Bioaccumulative, Toxic
PNEC = Predicted No-Effect Concentration
vPvB = very Persistent, very Bioaccumulative
Literature:
ECHA = European Chemical Agency Registration dossier
IUCLID = International Uniform ChemicaL Database Information (International kemikaliedatabase med information om kemiske stoffer)
Training advice:
No special training is required. However, the user should be well instructed in the execution of his/her task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.
Changes since the previous edition:
1-16

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