

Safety data sheet

According to 1907/2006/EC, Article 31 REACH

Printing date 20.09.2017

Version: 4

Revision: 20.09.2017

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

1.1 Product identifier

Trade name: **BIOTOWER 24 MARK**

Article number: 93900001

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

Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Product category PC37 Water treatment chemicals

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

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1.4 Emergency telephone number:

Customer Service

NL: Tel: + 31 164 250 100 Fax: + 31 164 266 710
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UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

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

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS07



GHS09

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- **Signal word** Warning
- **Hazard-determining components of labelling:**
A mixture of tetrasodium-phosphonoethane-1,2-dicarboxylate and hexasodium-phosphonobutane-1,2,3,4-tetracarboxylate
- **Hazard statements**
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P261 Avoid breathing vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 25988-97-0	N,N-Dimethyl-2-hydroxypropylammonium chloride polymer	2.5-5%
	<ul style="list-style-type: none"> ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ⚠ Acute Tox. 4, H302 	
CAS: 143239-08-1 ELINCS: 410-800-5	A mixture of tetrasodium-phosphonoethane-1,2-dicarboxylate and hexasodium-phosphonobutane-1,2,3,4-tetracarboxylate	2.5-5%
	<ul style="list-style-type: none"> ⚠ Aquatic Chronic 2, H411 ⚠ Skin Sens. 1, H317 	

- **Ingredients according to Detergents Regulation 648/2004/EC** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, universal binders).
Dispose contaminated material as waste according to item 13.

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Ensure adequate ventilation.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:** Not required.

· **Protection of hands:**



Protective gloves

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

· **Not suitable are gloves made of the following materials:** Strong material gloves

· **Eye protection:** Goggles recommended during refilling

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Colourless

· **Odour:** Odourless

· **Odour threshold:** Not determined.

· **pH-value at 20°C:** 9.5

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· Change in condition Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	100°C
· Flash point:	Not applicable.
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits: Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20°C:	23 hPa
· Density at 20°C:	1.047 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Insoluble.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content: Organic solvents:	0.0 %
Swiss VOC:	0.00 %
· Solids content:	3.2 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

143239-08-1 A mixture of tetrasodium-phosphonoethane-1,2-dicarboxylate and hexasodium-phosphonobutane-1,2,3,4-tetracarboxylate

Oral	LD50	>5,000 mg/kg (Rat)
Dermal	LD50	>2,000 mg/kg (Rat)
	LC50 / 96 h (static)	>100 mg/ltr (Oncorhynchus mykiss (Rainbow trout))
	EC 50 / 48 h (static)	>1,000 mg/ltr (Daphnia magna (water flea))

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.

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- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Disposal must be made according to official regulations
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA | UN3082 |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA | <p>3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N-Dimethyl-2-hydroxypropylammonium chloride polymer, A mixture of tetrasodium-phosphonoethane-1,2-dicarboxylate and hexasodium-phosphonobutane-1,2,3,4-tetracarboxylate)</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N-Dimethyl-2-hydroxypropylammonium chloride polymer, A mixture of tetrasodium-phosphonoethane-1,2-dicarboxylate and hexasodium-phosphonobutane-1,2,3,4-tetracarboxylate), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N-Dimethyl-2-hydroxypropylammonium chloride polymer, A mixture of tetrasodium-phosphonoethane-1,2-dicarboxylate and hexasodium-phosphonobutane-1,2,3,4-tetracarboxylate)</p> |

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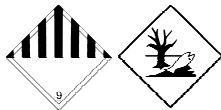
Revision: 20.09.2017

Trade name: **BIOTOWER 24 MARK**

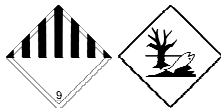
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· 14.3 Transport hazard class(es)

· ADR

· Class
· Label9 (M6) Miscellaneous dangerous substances and articles.
9

· IMDG, IATA

· Class
· Label9 Miscellaneous dangerous substances and articles.
9

· 14.4 Packing group

· ADR, IMDG, IATA

III

· 14.5 Environmental hazards:

Product contains environmentally hazardous substances: N,N-Dimethyl-2-hydroxypropylammonium chloride polymer

· Marine pollutant:

Yes

· Special marking (ADR):

Symbol (fish and tree)

· Special marking (IATA):

Symbol (fish and tree)

Symbol (fish and tree)

· 14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

· Danger code (Kemler):

90

· EMS Number:

F-A,S-F

· Stowage Category

A

· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· Transport category

3

· Tunnel restriction code

E

· Remarks:

Packaging containing 5L/Kg or less of product do NOT require labelling as hazardous for transport.

· IMDG

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· UN "Model Regulation":

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N-DIMETHYL-2-HYDROXYPROPYLAMMONIUM CHLORIDE POLYMER, A MIXTURE OF TETRASODIUM-PHOSPHONOETHANE-1,2-DICARBOXYLATE AND HEXASODIUM-PHOSPHONOBUTANE-1,2,3,4-TETRACARBOXYLATE), 9, III

SECTION 15: Regulatory information

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

Reg. (EC) n. 1272/2008 - CLP;

Reg. (EC) n. 1907/2006 - Reach;

Reg. (EC) n. 2015/830 annex II of REACH;

Reg. (EC) n. 648/04 (Detergents);

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Reg. (EC) n. 528/12 (Biocides BPR);
 Reg. (EC) n. 1223/2009 (Cosmetics);
 Dir. 06/08 ADR – RID - IMDG - IATA;
 Dir. 47/08 (Aerosols); Dir. 12/18 (Seveso III);
 Dir. 2008/98/CE and Reg. (EC) n.1357/2014 (Waste management)

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category E2** Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Waterhazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H302 Harmful if swallowed.
 H317 May cause an allergic skin reaction.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H411 Toxic to aquatic life with long lasting effects.

· **Department issuing SDS:**

Customer Service
 NL: Tel: + 31 164 250 100 Fax: + 31 164 266 710
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· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Sens. 1: Skin sensitisation – Category 1
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

- *** Data compared to the previous version altered.**

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Annex: Exposure scenario

· Short title of the exposure scenario

For the finished product.

*

BIOTOWER 24 MARK

· Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· Product category PC37 Water treatment chemicals

· Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet.

· Conditions of use

· Duration and frequency 5 workdays/week.

· Physical parameters

· Physical state Fluid

· Concentration of the substance in the mixture The substance is main component.

· Used amount per time or activity According to directions for use.

· Other operational conditions

· Other operational conditions affecting environmental exposure Use only on hard ground.

· Other operational conditions affecting worker exposure

Avoid contact with the skin.

Avoid long-term or repeated skin contact.

· Other operational conditions affecting consumer exposure No special measures required.

· Other operational conditions affecting consumer exposure during the use of the product Not applicable.

· Risk management measures

· Worker protection

· Organisational protective measures No special measures required.

· Technical protective measures

Use product only in enclosed systems.

Ensure that suitable extractors are available on processing machines

· Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Protective gloves

· Measures for consumer protection Ensure adequate labelling.

· Environmental protection measures

· Water Do not allow to reach sewage system.

· Soil Prevent contamination of soil.

· Disposal measures

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

· Disposal procedures Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Waste type Partially emptied and uncleaned packaging

· Exposure estimation

· Consumer Not relevant for this Exposure Scenario.

· Guidance for downstream users No further relevant information available.