

**BIOSISTEM AM 1000X****Safety data sheet****SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Code: 23410090L0006  
Product name BIOSISTEM AM 1000X

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

Intended use ANTI-MOULD ALGICIDE ADDITIVE

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

Name COLORIFICIO SAMMARINESE S.p.A.  
Full address Via del Camerario, 7  
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Product distribution by: COLORIFICIO SAMMARINESE S.p.A.

**1.4. Emergency telephone number**

For urgent inquiries refer to  
TEL. +378 0549 905515 (dalle ore 08.30 alle ore 17.30 - Lunedì / Venerdì) Di seguito si riportano i principali Centri Antiveleno presenti in Italia ed operativi 24 ore su 24, con i recapiti telefonici utili per contattarli tempestivamente:  
TORINO: Centro Antiveleni - Azienda Ospedaliera "S.G. Battista"- Molinette di Torino - Tel. 011 6637637  
MILANO: Centro Antiveleni - Ospedale Niguarda Ca' Granda - Tel. 02 66101029  
PAVIA: Cen. Naz. Inform. Tossic. Fond. S. Maugeri- Clinica del Lavoro e della Riabilitazione - Tel. 0382 24444  
PADOVA: Serv. Antiv. - Cen. Interdipartimentale di Ricerca sulle Intossicazioni Acute Dip. di Farmac. E.Meneghetti Università degli Studi di Padova – Tel. 049/8275078  
GENOVA: Servizio Antiveleni Serv.Pr.Socc.,Accett. e Oss. Istituto Scientifico G. Gaslini – TEL. 010/5636245  
FIRENZE: Centro Antiveleni - U.O. Tossicologia Medica Azienda Ospedaliera Careggi - TEL. 055/4277238  
ROMA: Centro Antiveleni Policlinico A.Gemelli - Università Cattolica Del Sacro Cuore - TEL. 06/3054343  
ROMA:Centro Antiveleni - Istituto Di Anestesiologia E Rianimazione Università Degli Studi Di Roma La Sapienza – TEL. 06/49970698 06/4461967  
NAPOLI: Centro Antiveleni Azienda Ospedaliera A. Cardarelli– TEL. 081/7472870

**SECTION 2. Hazards identification****2.1. Classification of the substance or mixture**

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

**Hazard classification and indication:**

Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, acute toxicity, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 1	H410	Very toxic to aquatic life with long lasting effects.

**BIOSISTEM AM 1000X**
**SECTION 2. Hazards identification ... / >>**
**2.2. Label elements**

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words:                 Warning

Hazard statements:

<b>H317</b>	May cause an allergic skin reaction.
<b>H410</b>	Very toxic to aquatic life with long lasting effects.
<b>EUH208</b>	Contains:                         TERBUTRYNE May produce an allergic reaction.

Precautionary statements:

<b>P261</b>	Avoid breathing dust / fume / gas / mist / vapours / spray.
<b>P273</b>	Avoid release to the environment.
<b>P280</b>	Wear protective gloves.
<b>P333+P313</b>	If skin irritation or rash occurs: Get medical advice / attention.
<b>P362+P364</b>	Take off contaminated clothing and wash it before reuse.
<b>P391</b>	Collect spillage.

Contains:                         2-N-OCTYL-4-ISOTHIAZOLIN-3-ONE

**2.3. Other hazards**

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

**SECTION 3. Composition/information on ingredients**
**3.1. Substances**

Information not relevant

**3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
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**ZINC OXIDE**

CAS	1314-13-2	5 <= x < 6	Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC	215-222-5		
INDEX	030-013-00-7		
Reg. no.	01-2119463881-32		

**PYRITHIONE ZINC**

CAS	13463-41-7	0,85 <= x < 0,95	Acute Tox. 3 H301, Acute Tox. 4 H332, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1
EC	236-671-3		
INDEX			
Reg. no.	01-2119511196-46		

**TERBUTRYNE**

CAS	886-50-0	0,75 <= x < 0,85	Acute Tox. 4 H302, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=100
EC	212-950-5		
INDEX			

**BIOSISTEM AM 1000X****SECTION 3. Composition/information on ingredients ... / >>****2-N-OCTYL-4-ISOTHIAZOLIN-3-ONE**

CAS 26530-20-1 0,4 <= x < 0,5 Acute Tox. 3 H311, Acute Tox. 3 H331, Acute Tox. 4 H302, Skin Corr. 1B H314,  
Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1

EC 247-761-7

INDEX 613-112-00-5

The full wording of hazard (H) phrases is given in section 16 of the sheet.

**SECTION 4. First aid measures****4.1. Description of first aid measures**

**EYES:** Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

**INGESTION:** Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

**INHALATION:** Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

**SECTION 5. Firefighting measures****5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

**UNSUITABLE EXTINGUISHING EQUIPMENT**

None in particular.

**5.2. Special hazards arising from the substance or mixture****HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

Do not breathe combustion products.

**5.3. Advice for firefighters****GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

# BIOSISTEM AM 1000X

## SECTION 6. Accidental release measures ... / >>

### 6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ -ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
	TLV-ACGIH	ACGIH 2016

#### ZINC OXIDE

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	2		10	
VLEP	FRA	5			
TLV	GRC	5		10	
TLV-ACGIH		2		10	

#### 2-N-OCTYL-4-ISOTHIAZOLIN-3-ONE

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH		0,2		0,6	

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

**HAND PROTECTION**

Protect hands with category III work gloves (see standard EN 374).

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## SECTION 8. Exposure controls/personal protection ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

### SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	viscous liquid
Colour	white
Odour	mild, characteristic
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	> 99 °C
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1.11 - 0.99 KG/L A 20°C
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	400.00 - 300.00 Viscosità Brookfield
Explosive properties	Not available
Oxidising properties	Not available

### 9.2. Other information

Total solids (250°C / 482°F)	100,00 %
VOC (Directive 2010/75/EC) :	0
VOC (volatile carbon) :	0

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

**BIOSISTEM AM 1000X****SECTION 10. Stability and reactivity ... / >>****10.2. Chemical stability**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

**10.4. Conditions to avoid**

None in particular. However the usual precautions used for chemical products should be respected.

**10.5. Incompatible materials**

Information not available

**10.6. Hazardous decomposition products**

Information not available

**SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

**11.1. Information on toxicological effects**Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

PYRITHIONE ZINC

LD50 (Oral)	269 mg/kg Ratto
LD50 (Dermal)	> 2000 mg/kg Ratto
LC50 (Inhalation)	1,03 mg/l/4h Ratto

2-N-OCTYL-4-ISOTHIAZOLIN-3-ONE

LD50 (Oral)	550 mg/kg Ratto
LD50 (Dermal)	690 mg/kg Coniglio

TERBUTRYNE

LD50 (Oral)	> 5000 mg/kg Ratto
LD50 (Dermal)	> 10200 mg/kg Rabbit

SKIN CORROSION / IRRITATION

**BIOSISTEM AM 1000X**
**SECTION 11. Toxicological information ... / >>**

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin  
May produce an allergic reaction.

Contains:

TERBUTRYNE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

**SECTION 12. Ecological information**

This product is dangerous for the environment and highly toxic for aquatic organisms. In the long term, it have negative effects on aquatic environment.

**12.1. Toxicity**
**PYRITHIONE ZINC**

LC50 - for Fish	0,0026 mg/l/96h Pimephales promelas
EC50 - for Crustacea	0,0082 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0,051 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Fish	0,00125 mg/l Brachydanio rerio
Chronic NOEC for Crustacea	0,029 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	0,0149 mg/l Pseudokirchneriella subcapitata

**2-N-OCTYL-4-ISOTHIAZOLIN-3-ONE**

LC50 - for Fish	0,036 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	0,42 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0,084 mg/l/72h Scenedesmus subspicata
Chronic NOEC for Fish	0,022 mg/l Oncorhynchus mykiss
Chronic NOEC for Crustacea	0,002 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	0,004 mg/l Scenedesmus subspicata

**TERBUTRYNE**

LC50 - for Fish	0,82 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	7,1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0,0027 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Fish	0,009 mg/l Oncorhynchus mykiss
Chronic NOEC for Crustacea	1,3 mg/l Daphnia magna

**BIOSISTEM AM 1000X****SECTION 12. Ecological information** ... / >>

Chronic NOEC for Algae / Aquatic Plants 0,00027 mg/l Pseudokirchneriella subcapitata

**ZINC OXIDE**

LC50 - for Fish

EC50 - for Crustacea

EC50 - for Algae / Aquatic Plants

Chronic NOEC for Fish

Chronic NOEC for Algae / Aquatic Plants

1,1 mg/l/96h Oncorhynchus mykiss

1,7 mg/l/48h Daphnia magna

0,14 mg/l/72h Pseudokirchnerella subcapitata

0,53 mg/l

0,024 mg/l

**12.2. Persistence and degradability****PYRITHIONE ZINC**

Rapidly degradable

**2-N-OCTYL-4-ISOTHIAZOLIN-3-ONE**

Rapidly degradable

**ZINC OXIDE**

Solubility in water

Solubility in water

Degradability: information not available

NOT rapidly degradable

2,9 mg/l

0,1 - 100 mg/l

**12.3. Bioaccumulative potential****ZINC OXIDE**

BCF

&gt; 175

**12.4. Mobility in soil**

Information not available

**12.5. Results of PBT and vPvB assessment**

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

**12.6. Other adverse effects**

Information not available

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

**CONTAMINATED PACKAGING**

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. Transport information****14.1. UN number**

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.



**BIOSISTEM AM 1000X**
**SECTION 14. Transport information ... / >>**
**14.2. UN proper shipping name**

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TERBUTRYN)  
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TERBUTRYN)  
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TERBUTRYN)

**14.3. Transport hazard class(es)**

ADR / RID: Class: 9 Label: 9



IMDG: Class: 9 Label: 9



IATA: Class: 9 Label: 9


**14.4. Packing group**

ADR / RID, IMDG, IATA: III

**14.5. Environmental hazards**

ADR / RID: Environmentally Hazardous



IMDG: Marine Pollutant



IATA: Environmentally Hazardous


**14.6. Special precautions for user**

ADR / RID:	HIN - Kemler: 90 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 450 L Maximum quantity: 450 L A97, A158	Packaging instructions: 964 Packaging instructions: 964

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

Information not relevant

**SECTION 15. Regulatory information**
**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso Category - Directive 2012/18/EC: E1

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product	
Point	3

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

**SECTION 15. Regulatory information** ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

**15.2. Chemical safety assessment**

No chemical safety assessment has been processed for the mixture and the substances it contains.

**SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

<b>Acute Tox. 3</b>	Acute toxicity, category 3
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 1</b>	Hazardous to the aquatic environment, chronic toxicity, category 1
<b>H301</b>	Toxic if swallowed.
<b>H311</b>	Toxic in contact with skin.
<b>H331</b>	Toxic if inhaled.
<b>H302</b>	Harmful if swallowed.
<b>H332</b>	Harmful if inhaled.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H317</b>	May cause an allergic skin reaction.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very toxic to aquatic life with long lasting effects.

**LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit

**BIOSISTEM AM 1000X**

**SECTION 16. Other information ... / >>**

- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

**GENERAL BIBLIOGRAPHY**

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**Changes to previous review:**

The following sections were modified:

01 / 02 / 03 / 04 / 09 / 11 / 12 / 14 / 15.