

SAFETY DATA SHEET

BluKat® Sterilizing Solution

According to Regulation (EC) No. 1907/2006 (REACH) and to Regulation (EC) No. 1272/2008 (CLP), in conjunction with Directives 91/155/EEC and 2001/58/EC

1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1. PRODUCT IDENTIFIER

- MATACHANA BluKat® Sterilizing Solution
- Hydrogen peroxide content: 59 %

1.2. RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST

Sterilization solution to be used only in Matachana HPO sterilizers in strict compliance with their Operating Instruction Manual.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

ANTONIO MATACHANA, S.A.
C/ Almogàvers, 174
E-08018 Barcelona (Spain)
Tel. (+34) 93 300 80 12
sds@matachana.com

1.4. EMERGENCY TELEPHONE NUMBER

Servicio Nacional de Información Toxicológica: +34 (91) 562 04 20

2. HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE MIXTURE ACC. REGULATION (EC) No. 1272/2008

- Ox. Liq. 2: **H272**
- Acute Tox. 4: **H332**
- Acute Tox. 4: **H302**
- Skin Corr. 1B: **H314**
- STOT SE 3: **H335**

2.2. LABEL ELEMENTS ACC. REGULATION (EC) No. 1272/2008

Contents: Hydrogen peroxide 59 % (CAS No.: 7722-84-1)

Hazard pictograms and signal word:



- **H272:** May intensify fire; oxidiser.
- **H332:** Harmful if inhaled.
- **H302:** Harmful if swallowed.
- **H314:** Causes severe skin burns and eye damage.
- **H335:** May cause respiratory irritation.

Precautionary statements:

- **P210:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- **P280:** Wear protective gloves.
- **P304 + P340:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- **P305 + P351 + P338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P303 + P361 + P353:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

2.3. OTHER HAZARDS

None of them.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. MIXTURES

59 % aqueous solution of hydrogen peroxide (EC No. 231-765-0).

Substances that contribute to the hazards of the mixture:

Components	CAS No.	Classification Directive 64/548/EC		Classification Regulation 1272/2008/EC		%
Hydrogen peroxide	7722-84-1	R5		Ox. Liq. 1;	H271	59
		O; R8		Acute Tox. 4;	H332	
		C; R35		Acute Tox. 4;	H302	
		Xn; R20/22		Skin Corr. 1A;	H314	
		Specific concentration limits		Specific concentration limits		
		C ≥ 50 %	Xn; R20	C ≥ 70 %****	Ox. Liq. 1; H271	
		C ≥ 8 %	Xn; R22	50 % ≤ C < 70 % ****	Ox. Liq. 2; H272	
		C ≥ 70 %	C; R35	*	-	
		50 % ≤ C < 70 %	C; R34	C ≥ 70 %	Skin Corr. 1A; H314	
		35 % ≤ C < 50 %	Xi; R37/38	50 % ≤ C < 70 %	Skin Corr. 1B; H314	
		8 % ≤ C < 50 %	Xi; R41	35 % ≤ C < 50 %	Skin Irrit. 2; H315	
		5 % ≤ C < 8 %	Xi; R36	8 % ≤ C < 50 %	Eye Dam. 1; H318	
		C ≥ 50%	Footnote O; R8	5 % ≤ C < 8 %	Eye Irrit. 2; H319	
		C ≥ 70 %	R5	C ≥ 35 %	STOT SE 3; H335	

4. FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

If inhaled:	In case of accident by inhalation: remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
In case of skin contact:	Take off all contaminated clothing immediately and wash off immediately with plenty of water. Obtain medical attention.
In case of eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.
If swallowed:	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

See Section 2, on mixture hazards, and Section 11, on toxicological effects.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically and seek medical attention.

5. FIREFIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Suitable extinguishing media: The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: None known.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

The product itself does not burn, but in contact with combustible substances it increases the risk of fire and can fuel any existing fire substantially.

5.3. ADVICE FOR FIREFIGHTERS

The product itself does not burn, but in contact with combustible substances it increases the risk of fire and can fuel any existing fire substantially.

6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protective equipment. Keep away from heat and sources of ignition. Avoid contact with skin and eyes. Do not breathe vapours or spray mist. For personal protection, see Section 8.

6.2. ENVIRONMENTAL PRECAUTIONS

Do not flush into surface water or sanitary sewer system. Dilute with water. Local authorities should be advised if significant spillages cannot be contained.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

6.3.1. Accidental spills or leakages

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

6.4. REFERENCE TO OTHER SECTIONS

For personal protection, see Section 8.
For conditions concerning the elimination, see Section 13.

7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

7.1.1. Advice on safe handling

Do not keep the container sealed. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Emergency eyewash fountains and emergency showers should be available in the immediate vicinity.

7.1.2. Hygiene measures

Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Provide adequate ventilation. Take off all contaminated clothing immediately. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

7.2.1. Requirements for storage areas and containers

Store in original container. Suitable materials for containers: stainless steel, glass, Teflon. Unsuitable materials for containers: brass, copper, iron.

7.2.2. Advice on protection against fire and explosion

Oxidising. Contact with combustible material may cause fire. Keep away from sources of ignition - No smoking.

7.2.3. Further information on storage conditions

Do not keep the container sealed. Keep in a well-ventilated place. Store in cool place. Keep stored between 5 °C and 30 °C. Protect from contamination.

7.2.4. Advice on common storage

Keep away from food, drink and animal feeding stuffs. Keep away from combustible material.

7.2.5. German storage class

5.1BL Oxidising Liquids.

7.3. SPECIFIC END USES

The Matachana BluKat® Sterilising Solution may only be used in Matachana HPO sterilizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

a) Exposure Limit Values:

EC No.	CAS No.	Name of the substance	Limit Value (TLV)	Limit Value (MAK)
231-765-0	7722-84-1	Hydrogen peroxide	1.4 mg/m ³ (1 ppm)	0.71 mg/m ³ (0.5 ppm)

b) Biological Limit Values:

Hydrogen peroxide has no Biological Limit Value.

8.2. EXPOSURE CONTROLS

8.2.1. Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.2.2.

8.2.2. Individual protection measures

a) Eye / face protection

No special measures required.

b) Skin protection

i) Hand protection

The glove material has to be impermeable and resistant to the product / the substance / the preparation. Take note of the information given by the producer concerning permeability and break through times, and of specific workplace conditions (mechanical strain, duration of contact). Protective gloves should be replaced at first signs of wear.

Material: butyl-rubber / natural rubber / polychloroprene
Break through time: < 8 h
Glove thickness: 0.5 mm

ii) Other

Impervious clothing.

c) Respiratory protection

Use respirator with appropriate filter if vapours or aerosol are released. Combination filter: NO-P3 In case of intensive or longer exposure use self-contained breathing apparatus.

d) Thermal hazards

No special measures required.

8.2.3. Environmental exposure controls

Do not flush into surface water or sanitary sewer system. Dilute with water. Local authorities should be advised if significant spillages cannot be contained.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

• Aspect:	colourless, clear liquid
• Physical state:	liquid
• Colour:	colourless, clear
• Odour:	odourless
• pH (at 20 °C):	1.0 to 3.5
• Boiling range:	119 °C
• Flash point:	n.a.
• Ignition temperature:	no data available
• Explosion hazard:	none
• Vapour pressure:	no data available
• Density (c.a. at 20 °C):	1.24 g/cm ³
• Solubility in water:	completely miscible
• Viscosity (dynamic):	no data available

9.2. OTHER INFORMATION

No further information available.

10. STABILITY AND REACTIVITY

10.1. REACTIVITY

No decomposition if stored and applied as directed.

10.2. CHEMICAL STABILITY

No decomposition if stored and applied as directed.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

Oxidizing properties.

10.4. CONDITIONS TO AVOID

- Keep away from direct sunlight.
- Keep away from heat and sources of ignition.
- For more details regarding conditions for safe storage and transport, see section 7.2.

10.5. INCOMPATIBLE MATERIALS

- Reducing agents, metal oxides and powdered metals.
- Protect from contamination.
- Keep away from combustible material.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Oxygen.

11. TOXICOLOGICAL INFORMATION



11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

11.1.1. Acute toxicity

Oral

- Acute toxicity estimate: 596.56 mg/kg.
- LD50 Oral: 417.55 mg/kg (rat).
- The toxicological value for the pure substance was calculated on basis of a value for an aqueous solution.

Dermal

- LD50 dermal: 4060 mg/kg (rabbit).

Inhalation

- Acute toxicity estimate: 15.72 mg/l

11.1.2. Irritation

Skin

- Corrosive effects (rabbit).

Eyes

- Corrosive effects (rabbit). Risk of serious damage to eyes.

11.1.3. Sensitisation

Not sensitising (guinea pig).

11.1.4. Further information

Other relevant toxicity information:

All numerical values for acute toxicity are calculated on the pure substances. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. Inhalation of aerosol may cause irritation to the upper respiratory tract. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.

12. ECOLOGICAL INFORMATION

12.1. TOXICITY

Fish:

- LC50 = 16.4 mg/l (Pimephales promelas; 96 h)
- LC50 = 35 mg/l (Leuciscus idus melanotus; 24 h)

Daphnia and other aquatic invertebrates:

- EC50 = 7.7 mg/l (Daphnia magna; 24 h)

Algae:

- EC50 = 27.5 - 43 mg/l (scenedesmus quadricauda; 240 h)

Bacteria:

- EC10 = 11 mg/l (Pseudomonas putida; 16 h)

12.2. PERSISTENCE AND DEGRADABILITY

Persistence: The product can be degraded by abiotic (e.g. chemical or photolytic) processes.

Biodegradability: Readily biodegradable.

12.3. BIOACCUMULATIVE POTENTIAL

Does not bioaccumulate.

12.4. MOBILITY IN SOIL

No data available.

12.5. RESULTS OF PBT AND MPMB ASSESSMENT

Not applicable.

12.6. OTHER ADVERSE EFFECTS

All numerical values for ecotoxicity effects are calculated on the pure substances. Should not be released into the environment. May be a hazard to drinking water when very large quantities get into groundwater. Harmful effects to aquatic organisms due to pH-shift.

13. DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

13.1.1. Product

Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.

13.1.2. Contaminated packaging

Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning. Clean container with water. Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

13.1.3. European Waste Catalogue Number

No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use and the regional waste disposer dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14. TRANSPORT INFORMATION

14.1. UN NUMBER

2014.

14.2. UN PROPER SHIPPING NAME

ADR / RID / IMDG / ICAO / IATA: HYDROGEN PEROXIDE, AQUEOUS SOLUTION with more than 40 percent but not more than 60 percent hydrogen peroxide (stabilized as necessary).

14.3. TRANSPORT HAZARD CLASS(ES)

ROAD/RAIL TRANSPORT: ADR/RID-Class: 5.1
Labels: 5.1, (8)
Classification Code: OC1
Hazard identification No.: 58
Tunnel restriction code : (E)
Limited Quantities (LQ): 1L

SEA TRANSPORT: IMDG-Class: 5.1
Labels: 5.1, (8)
EmS: F-H, S-Q
Limited Quantities (LQ): 1L

AIR TRANSPORT (ICAO/IATA): In compliance with the Technical Instructions (SP A2) and Packing Instruction 554.
Class: 5.1
Labels: 5.1, (8)
Maximum net amount per package: 5L

14.4. PACKAGING GROUP

ADR / RID / IMDG / ICAO / IATA: II

14.5. ENVIRONMENTAL HAZARDS

- Labelling according to 5.2.1.8 ADR / 5.2.1.8 RID / 5.2.1.6.3 IMDG: no
- Classification as environmentally hazardous according to 2.9.3 IMDG: no.
- Classified as "P" according to 2.10 IMDG: no

14.6. SPECIAL PRECAUTIONS FOR USER

Not applicable.

14.7. TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

IMDG: Not applicable.

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

- Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
- Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006.
- Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

15.2. CHEMICAL SAFETY ASSESSMENT

No chemical safety assessment has been carried out for this mixture.

16. OTHER INFORMATION



The MATACHANA BluKat® Sterilizing Solution may only be used in strict compliance with the Operating Instructions Manual of the Matachana HPO sterilizer by personnel with adequate training.

The information contained herein is based on our current knowledge. It does not represent any warranty concerning the properties of the equipment, nor does it constitute a contractual relationship.