




## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** BACTIBLOCK 101 R4.47  
**Other means of identification:**  
**UFI:** Q300-E005-W00Y-GSPC
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Relevant uses: Multi-purpose disinfectant additive for various materials. For professional users/industrial user only.  
Uses advised against: All uses not specified in this section or in section 7.3  
Please see the annex for detailed information about the specific and safe usage of the product.
- 1.3 Details of the supplier of the safety data sheet:**  
LABORATORIOS ARGENOL, S.L.  
Ctra. de Logroño Km 7,4 Polígono Europa 2 Nave 1  
50011 Zaragoza - Zaragoza - España  
Phone: 976336266  
lab-argenol@laboratorios-argenol.com  
www.laboratorios-argenol.com
- 1.4 Emergency telephone number:** + 34 91 562 04 20 (National Toxicology Information Service)

## SECTION 2: HAZARDS IDENTIFICATION \*\*

- 2.1 Classification of the substance or mixture:**  
This product contains less than 1% respirable crystalline silica, so it does not require classification  
**CLP Regulation (EC) No 1272/2008:**  
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.  
Aquatic Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400  
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411  
Eye Dam. 1: Serious eye damage, Category 1, H318  
Skin Irrit. 2: Skin irritation, Category 2, H315  
STOT RE 2: Specific target organ toxicity — Repeated exposure, Hazard Category 2, H373  
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335
- 2.2 Label elements:**  
**CLP Regulation (EC) No 1272/2008:**  
**Danger**  
  
**Hazard statements:**  
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.  
Eye Dam. 1: H318 - Causes serious eye damage.  
Skin Irrit. 2: H315 - Causes skin irritation.  
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.  
STOT SE 3: H335 - May cause respiratory irritation.  
**Precautionary statements:**  
P101: If medical advice is needed, have product container or label at hand.  
P102: Keep out of reach of children.  
P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.  
P302+P352: IF ON SKIN: Wash with plenty of water.  
P304+P340: IF INHALED: Remove person to fresh air and keep 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.  
P403+P233: Store in a well-ventilated place. Keep container tightly closed.  
P501: Dispose of contents/container according to the separated collection system used in your municipality.  
**Substances that contribute to the classification**  
cetrimonium bromide (CAS: 57-09-0)

\*\* Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



## SECTION 2: HAZARDS IDENTIFICATION \*\* (continued)

**UFI:** Q300-E005-W00Y-GSPC

### 2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

The product fails to meet the criteria due to its endocrine-disrupting properties.

\*\* Changes with regards to the previous version

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substance:

Non-applicable

### 3.2 Mixture:

**Chemical description:** Bentonite modifiée à l'argent

#### Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 57-09-0 EC: 200-311-3 Index: Non-applicable REACH: 01-2119989160-35-XXXX	<b>cetrimonium bromide</b> <input type="checkbox"/> <sup>1</sup> <input type="checkbox"/> Self-classified Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Acute 1: H400; Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT RE 2: H373; STOT SE 3: H335 - Danger	<b>10 - &lt;50 %</b>
CAS: 7440-22-4 EC: 231-131-3 Index: Non-applicable REACH: 01-2119555669-21-XXXX	<b>Silver</b> <input type="checkbox"/> <sup>1</sup> <input type="checkbox"/> Self-classified Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410 - Warning	<b>0,5- &lt;5 %</b>

☐ <sup>1</sup> ☐ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

#### Other information:

Identification	M-factor
cetrimonium bromide CAS: 57-09-0 EC: 200-311-3	Acute 100 Chronic 1
Silver CAS: 7440-22-4 EC: 231-131-3	Acute 10 Chronic 10

Identification	Specific concentration limit
cetrimonium bromide CAS: 57-09-0 EC: 200-311-3	% (w/w) >=2,5: Skin Irrit. 2 - H315

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

#### By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

#### By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

#### By eye contact:

- CONTINUED ON NEXT PAGE -



#### SECTION 4: FIRST AID MEASURES (continued)

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

#### SECTION 5: FIREFIGHTING MEASURES

**5.1 Extinguishing media:**

**Suitable extinguishing media:**

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

**Unsuitable extinguishing media:**

Non-applicable

**5.2 Special hazards arising from the substance or mixture:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Advice for firefighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

**Additional provisions:**

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:**

**For non-emergency personnel:**

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal

**For emergency responders:**

See section 8.

**6.2 Environmental precautions:**

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

**6.3 Methods and material for containment and cleaning up:**

It is recommended:

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal

**6.4 Reference to other sections:**

See sections 8 and 13.



## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

#### A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

#### B.- Technical recommendations for the prevention of fires and explosions

Due to its inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

#### C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

#### D.- Technical recommendations to prevent environmental risks

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal See sections 8 and 13.

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

#### A.- Technical measures for storage

Minimum Temp.: 10 °C

Maximum Temp.: 40 °C

Maximum time: 5 years

#### B.- General conditions for storage

Store at room temperature in the original container protected from light. Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

### 7.3 Specific end use(s): Please see the annex for detailed information about handling, storage and specific end uses.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification		Occupational exposure limits	
Silver CAS: 7440-22-4 EC: 231-131-3		IOELV (8h)	0,1 mg/m <sup>3</sup>
		IOELV (STEL)	

Nuisance dust: Inhalable dust 10 mg/m<sup>3</sup> // Respirable dust 4 mg/m<sup>3</sup>

#### DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
cetrimonium bromide CAS: 57-09-0 EC: 200-311-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,4 mg/kg	Non-applicable
	Inhalation	Non-applicable	0,05 mg/m <sup>3</sup>	Non-applicable	Non-applicable
Silver CAS: 7440-22-4 EC: 231-131-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0,1 mg/m <sup>3</sup>	Non-applicable

#### DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Silver CAS: 7440-22-4 EC: 231-131-3	Oral	Non-applicable	Non-applicable	1,2 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0,04 mg/m <sup>3</sup>	Non-applicable

#### PNEC:

- CONTINUED ON NEXT PAGE -


**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**



Identification				
cetrimonium bromide CAS: 57-09-0 EC: 200-311-3	STP	0,19 mg/L	Fresh water	0,000022 mg/L
	Soil	0,21 mg/kg	Marine water	0,000002 mg/L
	Intermittent	0,0004 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
Silver CAS: 7440-22-4 EC: 231-131-3	STP	0,025 mg/L	Fresh water	0,00004 mg/L
	Soil	1,41 mg/kg	Marine water	0,00086 mg/L
	Intermittent	Non-applicable	Sediment (Fresh water)	438,13 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	438,13 mg/kg

**8.2 Exposure controls:**
**A.- Individual protection measures, such as personal protective equipment**



In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 2016/425/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

**B.- Respiratory protection**



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases, vapours and particles	 CAT III	EN 149:2001+A1:2009 EN 405:2002+A1:2010 EN ISO 136:1998	Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected.

**C.- Specific protection for the hands**





Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves	 CAT III	EN ISO 374-1:2016+A1:2018 EN 16523-1:2015+A1:2018 EN 420:2004+A1:2010	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

**D.- Ocular and facial protection**

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield	 CAT II	EN 166:2002 EN 167:2002 EN 168:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.



**E.- Body protection**

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks	 CAT III	EN 13034:2005+A1:2009 EN 168:2002 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk	 CAT III	EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

**F.- Additional emergency measures**

- CONTINUED ON NEXT PAGE -


**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**Volatile organic compounds:**

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0 kg/m <sup>3</sup> (0 g/L)
Average carbon number:	Non-applicable
Average molecular weight:	Non-applicable

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**
**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

Physical state at 20 °C:	Solid
Appearance:	Powdery
Colour:	<input type="checkbox"/> White
Odour:	Odourless
Odour threshold:	Non-applicable *

**Volatility:**

Boiling point at atmospheric pressure:	Non-applicable *
Vapour pressure at 20 °C:	Non-applicable *
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *

**Product description:**

Density at 20 °C:	0,23 g/cm <sup>3</sup>
Relative density at 20 °C:	>1,4 - 1,8
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	8
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	>200 °C
Melting point/freezing point:	>250 °C

**Flammability:**

Flash Point:	Non-applicable
--------------	----------------

\*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Flammability (solid, gas): Non-applicable \*  
 Autoignition temperature: Non-applicable \*  
 Lower flammability limit: Non-applicable \*  
 Upper flammability limit: Non-applicable \*

### Explosive (Solid):

Lower explosive limit: Non-applicable \*  
 Upper explosive limit: Non-applicable \*

### Particle characteristics:

Median equivalent diameter: Non-applicable \*

## 9.2 Other information:

### Information with regard to physical hazard classes:

Explosive properties: Non-applicable \*  
 Oxidising properties: Non-applicable \*  
 Corrosive to metals: Non-applicable \*  
 Heat of combustion: Non-applicable \*  
 Aerosols-total percentage (by mass) of flammable components: Non-applicable \*

### Other safety characteristics:

Surface tension at 20 °C: Non-applicable \*  
 Refraction index: Non-applicable \*  
 Particle size (PSD): D(0,5) = 6,99 microns

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

### 10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

### 10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

### 10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

### 10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

The experimental information related to the toxicological properties of the product itself is not available

### Dangerous health implications:

- CONTINUED ON NEXT PAGE -



## BACTIBLOCK 101 R4.47



### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

#### A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

#### B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

#### C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

#### D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

#### G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### Other information:

Non-applicable

#### Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Silver CAS: 7440-22-4 EC: 231-131-3	LD50 oral	5100 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>5 mg/L (4 h)	
cetrimonium bromide CAS: 57-09-0 EC: 200-311-3	LD50 oral	1550 mg/kg	Rat
	LD50 dermal	4300 mg/kg	Rabbit
	LC50 inhalation	>5 mg/L (4 h)	

#### Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	5166,67 mg/kg (Calculation method)	0 %
Dermal	>2000 mg/kg (Calculation method)	Non-applicable

- CONTINUED ON NEXT PAGE -





## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Inhalation	>5 mg/L (4 h) (Calculation method)	Non-applicable
------------	------------------------------------	----------------

### 11.2 Information on other hazards:

#### Endocrine disrupting properties

The product fails to meet the criteria due to its endocrine-disrupting properties.

#### Other information

Non-applicable

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity:

#### Product-specific aquatic toxicity:

Acute toxicity		Species	Genus
LC50	0.454 mg/L (96 h)	Brachydanio rerio	Fish
EC50	0.078 mg/L (48 h)	Daphnia magna	Crustacean
EC50	0.321 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae

#### Substance-specific aquatic toxicity:

##### Acute toxicity:

Identification	Concentration		Species	Genus
cetrimonium bromide CAS: 57-09-0 EC: 200-311-3	LC50	0.2 mg/L (96 h)	Danio rerio	Fish
	EC50	0.026 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	0.0041 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
Silver CAS: 7440-22-4 EC: 231-131-3	LC50	0.013 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	Non-applicable		
	EC50	Non-applicable		

##### Chronic toxicity:

Identification	Concentration		Species	Genus
cetrimonium bromide CAS: 57-09-0 EC: 200-311-3	NOEC	0.23 mg/L	Pimephales promelas	Fish
	NOEC	0.023 mg/L	Daphnia magna	Crustacean

### 12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
cetrimonium bromide CAS: 57-09-0 EC: 200-311-3	BOD5	Non-applicable	Concentration	5 mg/L
	COD	Non-applicable	Period	11 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %

### 12.3 Bioaccumulative potential:

- CONTINUED ON NEXT PAGE -



## SECTION 12: ECOLOGICAL INFORMATION (continued)

Not available

### 12.4 Mobility in soil:

Not available

### 12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

### 12.6 Endocrine disrupting properties:

The product fails to meet the criteria due to its endocrine-disrupting properties.

### 12.7 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
	It is not possible to assign a specific code, as it depends on the intended use by the user	Dangerous

#### Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP4 Irritant — skin irritation and eye damage

#### Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

#### Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

## SECTION 14: TRANSPORT INFORMATION

### Transport of dangerous goods by land:

With regard to ADR 2021 and RID 2021:



- 14.1 UN number or ID number:** UN3077
- 14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (cetrimonium bromide)
- 14.3 Transport hazard class(es):** 9
- Labels:** 9
- 14.4 Packing group:** III
- 14.5 Environmental hazards:** Yes
- 14.6 Special precautions for user**
- Special regulations: 274, 335, 375, 601
- Tunnel restriction code: -
- Physico-Chemical properties: see section 9
- Limited quantities: 5 kg
- 14.7 Maritime transport in bulk according to IMO instruments:** Non-applicable

### Transport of dangerous goods by sea:

With regard to IMDG 39-18:

- CONTINUED ON NEXT PAGE -



## SECTION 14: TRANSPORT INFORMATION (continued)



- 14.1 UN number or ID number:** UN3077  
**14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (cetrimonium bromide)  
**14.3 Transport hazard class(es):** 9  
**Labels:** 9  
**14.4 Packing group:** III  
**14.5 Marine pollutant:** Yes  
**14.6 Special precautions for user**  
Special regulations: 335, 966, 274, 967, 969  
EmS Codes: F-A, S-F  
Physico-Chemical properties: see section 9  
Limited quantities: 5 kg  
Segregation group: Non-applicable  
**14.7 Maritime transport in bulk according to IMO instruments:** Non-applicable

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2021:



- 14.1 UN number or ID number:** UN3077  
**14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (cetrimonium bromide)  
**14.3 Transport hazard class(es):** 9  
**Labels:** 9  
**14.4 Packing group:** III  
**14.5 Environmental hazards:** Yes  
**14.6 Special precautions for user**  
Physico-Chemical properties: see section 9  
**14.7 Maritime transport in bulk according to IMO instruments:** Non-applicable

## SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable  
Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable  
Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable  
Article 95, REGULATION (EU) No 528/2012: Silver (Product-type 2, 4, 5, 11)  
REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

#### Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
E1	ENVIRONMENTAL HAZARDS	100	200

#### Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):

Occupational exposure to respirable crystalline silica must be controlled pursuant to Directive (EU) 2019/130.

#### Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

#### Other legislation:

The product could be affected by sectorial legislation

### 15.2 Chemical safety assessment:

- CONTINUED ON NEXT PAGE -



## SECTION 15: REGULATORY INFORMATION (continued)

The provider has carried out a chemical safety assessment

## SECTION 16: OTHER INFORMATION \*\*

### Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

### Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

COMMISSION REGULATION (EU) 2020/878

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

- Hazard statements

Annex: Safe use

### Texts of the legislative phrases mentioned in section 2:

H400: Very toxic to aquatic life.

H411: Toxic to aquatic life with long lasting effects.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H373: May cause damage to organs through prolonged or repeated exposure.

### Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

### CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H302 - Harmful if swallowed.

Aquatic Acute 1: H400 - Very toxic to aquatic life.

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.

Eye Dam. 1: H318 - Causes serious eye damage.

Skin Irrit. 2: H315 - Causes skin irritation.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

STOT SE 3: H335 - May cause respiratory irritation.

### Classification procedure:

Aquatic Acute 1: Calculation method

Aquatic Chronic 2: Calculation method

Skin Irrit. 2: Calculation method

Eye Dam. 1: Calculation method

STOT SE 3: Calculation method

STOT RE 2: Calculation method

### Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

### Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

### Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

\*\* Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



ANNEX: SAFE USE \*\*

**Annex: Exposure scenarios Ammonium Salt (CTMAB)**

• **Product category**

PC20 Technological aids such as pH regulators, flocculating agents, precipitants and neutralizers  
 PC21 Laboratory Chemicals  
 PC28 Perfumes, fragrances  
 PC29 Medications  
 PC32 Polymeric preparations and components  
 PC37 Chemicals for water treatment  
 PC39 Cosmetics and personal care products

• **Description of the effects / processes taken into account in the exposure cases**

See section 1 in the annex to consult the safety data sheet.

• **Requirements for use**

• **Duration and periodicity** 5 working days / week.

• **Physical parameters**

• **Physical state** Solid

• **Concentration of the material in the mixture:** Pure substance.

• **Amounts used by time or activity** <0.01 tons per day.

• **Other requirements for use**

• **Other requirements for use that affect environmental exposure**

Observe chapter 6 of the safety data sheet (measures to be taken in the event of an unexpected release).

• **Other usage requirements that affect employee exposure:**

Avoid contact with the eyes. Avoid contact with skin. Do not inhale the dust.  
 Observe the indications on first aid measures (for treatment due to an accident due to exposures).  
 Keep away from food, drink and pet food. Ensure that there is sufficient ventilation, especially in closed rooms.  
 The necessary organizational measures must be taken to avoid direct contact with the chemicals / the product / the preparation.  
 Observe chapter 6 of the safety data sheet (measures to be taken in the event of an unexpected release).

• **Other usage requirements that affect consumer exposure during product use** Not applicable.

• **Risk management measures**

• **Employee protection**

• **Organizational protection measures**

Appoint only qualified chemical employees. Take into account employment limitations for young people.  
 Take into account the employment limitations for pregnant or lactating women. Procedures for handling must be properly documented.  
 The work must only be carried out by professionals or authorized personnel. Keep away from food, drink or pet food.  
 Provide facilities with sinks in the workplace.  
 Observe chapter 4 of the safety data sheet (First aid measures).  
 It must be ensured that the work area is properly organized and illuminated. Ensure eye showers and indicate their location unequivocally.  
 Provide instructions for use.

\*\* Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



ANNEX: SAFE USE \*\* (continued)

• **Technical protection measures:**

- Provide a suitable suction system in the processing machines. Store, in tightly closed containers, in a dry and cool environment.
- Protect from heat and direct sunlight.
- Ensure sufficient ventilation / aspiration in the workplace. Open and handle the container with care.
- Avoid dust formation.
- Regularly remove the dust that inevitably forms.
- Washbasin / water facilities should be available for cleaning eyes and skin.

• **Personal protection measures:**

- Do not breathe dust / fume / mist. Avoid contact with skin.
- Avoid contact with the eyes. Airtight goggles
- Keep away from food, drink and animal feed. Immediately remove contaminated clothing.
- Wash hands before breaks and at the end of work. Do not eat or drink during work.
- Provide toilets in the workplace.
- Storing food in the workplace is prohibited.
- If ventilation is insufficient, wear respiratory protection. Protection gloves
- The glove material must be impermeable and resistant to the product / the substance / the preparation.
- Selection of glove material based on breaking times, degree of permeability and degradation.
- If ventilation is insufficient, wear respiratory protection.

• **Measures for environmental protection**

- **Water:** Do not allow it to enter groundwater, stagnant water or sewers.
- **Soils:** Seepage into the soil should be avoided.

• **Measures for disposal**

- Remove according to official regulations. Ensuring that waste is collected and contained. It should not be disposed of in household garbage. Do not allow it to enter the pipeline.

• **Procedure for removal**

- It must not be disposed of with household waste. You should not reach sewage system.

• **Types of waste** Partially emptied and dirty containers.

• **Exposure forecasts**

• **Consumer** Not relevant for this exposure scenario.

• **Advice for downstream users** No further relevant information available.

\*\* Changes with regards to the previous version

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -