

**Safety Data Sheet**  
**BIOQUARK**



Safety Data Sheet dated 30/3/2017, version 1

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

**1.1. Product identifier**

Mixture identification:

Trade name: **BIOQUARK**

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

Identified use:

Disinfectant concentrate for the treatment of water systems for professional use.

**PRESIDIO MEDICO CHIRURGICO REG. MINISTERO DELLA SALUTE N°20149**

Uses advised against:

Any other use different from the identified uses.

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

Company:

BARCHEMICALS SRL

VIA S.ALLENDE 14

CASTELNUOVO RANGONE (MO)

ITALY

PHONE. +39 059/536502

FAX. +39 059/536742

Competent person responsible for the safety data sheet:

barani.corrado@barchemicals.it






**1.4. Emergency telephone number**

Barani Dr.Corrado - MOBILE PHONE. +39 335/6109383

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

EC regulation criteria n°1272/2008 (CLP)

-  Danger, Ox. Sol. 2, May intensify fire
-  Warning, Acute Tox. 4, Harmful if swallowed.
-  Danger, Skin Corr. 1B, Causes severe skin burns and eye damage.
-  Danger, Eye Dam. 1, Causes serious eye damage.
-  Warning, Aquatic Acute 1, Very toxic to aquatic life.

EUH031 Contact with acids liberates toxic gas.

Adverse physicochemical, human health and environmental effects:

No other hazards

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**2.2. Label elements**

Hazard pictograms:



Danger

**Hazard statements:**

- H272 May intensify fire; oxidiser.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H400 Very toxic to aquatic life.

**Precautionary statements:**

- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

EUH031 Contact with acids liberates toxic gas.

Contains

calcium hypochlorite

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

**2.3. Other hazards**

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards





**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

N.A.

**3.2. Mixtures**

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification	
≥ 70% - < 80%	calcium hypochlorite	Index	 2.14/2 Ox. Sol. 2 H272  3.2/1B Skin Corr. 1B H314  4.1/A1 Aquatic Acute 1 H400 M=10.  3.1/4/Oral Acute Tox. 4 H302 EUH031	
		number:		
		CAS:		7778-54-3
		EC:		231-908-7

#### **SECTION 4: First aid measures**

##### **4.1. Description of first aid measures**

###### **In case of skin contact:**

Remove contaminated clothing immediately and dispose off safely.  
After contact with skin, wash immediately with soap and plenty of water.  
OBTAIN IMMEDIATE MEDICAL ATTENTION.

###### **In case of eyes contact:**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.  
Protect uninjured eye.

###### **In case of Ingestion:**

Rinse mouth with plenty water  
Do NOT induce vomiting.  
Give nothing to eat or drink.  
OBTAIN IMMEDIATE MEDICAL ATTENTION.

###### **In case of Inhalation:**

Remove casualty to fresh air and keep warm and at rest.

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

Cough.  
Gastrointestinal disorders.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None.

#### **SECTION 5: Firefighting measures**

##### **5.1. Extinguishing media**

###### **Suitable extinguishing media:**

Water.  
Carbon dioxide (CO<sub>2</sub>).

###### **Extinguishing media which must not be used for safety reasons:**

Powder.

##### **5.2. Special hazards arising from the substance or mixture**

Do not inhale explosion and combustion gases.  
Burning produces heavy smoke.  
Carbon monoxide (CO).

##### **5.3. Advice for firefighters**

Isolate areas by removing all persons in case of fire.  
The firemen must wear protective equipment and a breathing apparatus (SCBA) with a full face-piece operated in positive pressure. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN469 provide a basic level of protection for chemical incidents.

#### **SECTION 6: Accidental release measures**

##### **6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment.  
Remove persons to safety.  
See protective measures under point 7 and 8.

##### **6.2. Environmental precautions**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.  
Retain contaminated washing water and dispose it.  
In case of gas escape or of entry into waterways, soil or drains, inform the responsible

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authorities.

Suitable material for taking up: absorbing material, sand.

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

Recommendations on how to contain a spill:  
coverage of discharges.

Recommendations on how to clean up a spill:  
capture mechanically. Control dust.

Other information relating to spills and releases:  
place into a suitable container for disposal. Ventilate affected area.

#### **6.4. Reference to other sections**

For information on dangerous products of combustion, see Chapter 5.

For information about safe handling, see section 7.

For information on personal protection equipment, please see Chapter 8.

For information about incompatible materials, see Chapter 10.

For disposal information, see Chapter 13.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

**NEVER MIX WITH OTHER PRODUCTS**

**NOT WIND UP NEVER BEFORE USE**

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

Do not eat, drink or smoke at the workplace. Foods and beverages should be consumed only in areas specifically identified after removing contaminated clothing and protective equipment and after washing your hands. Wash in any case hands after handling the substance / mixture.

Store at room temperature in airtight containers in a dry and well-ventilated place.

Keep away from food, drink and feed.

Incompatible materials:

Keep away from acids.

Keep away from combustible materials.

Instructions as regards storage premises:

Cool and adequately ventilated.

### **7.3. Specific end use(s)**

See chapter 1.2.

## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

No occupational exposure limit available

DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

### **8.2. Exposure controls**

#### **Eye/face protection:**

Eye glasses with side protection. EN166

#### **Protection for skin:**

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Chemical protection clothing.

**Protection for hands:**

Gloves resistant to chemicals. EN 374

Rubber gloves.

**Respiratory protection:**

Mask with filter for gases and vapors (EN 14387).

**Thermal Hazards:**

Not applicable (the product is handled at room temperature)

**Environmental exposure controls:**

Do not allow the product to be absorbed from the soil or from entering waterways or sewers. Do not let product enter drains. Discharge into the environment must be avoided.

The product is toxic to the aquatic environment.

**Appropriate engineering controls:**

Ensure adequate ventilation. Comply with the maximum concentration values in the workplace.

**SECTION 9: Physical and chemical properties**

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

Properties	Value	Method:	Notes:
Appearance and colour:	White tablet	--	--
Odour:	Characteristic	--	--
Odour threshold:	N.A.	--	--
pH:	10.5 (10 g/l)	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	N.A.	--	--
Flash point:	may cause ignition of combustible material	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	1,3 g/cm <sup>3</sup>	--	--
Solubility in water:	180 g/l	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	>180°C (decomposition)	--	--
Viscosity:	N.A.	--	--
Explosive properties:	Not explosive product	--	--
Oxidizing properties:	Oxidizing agent	--	--

**9.2. Other information**

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--

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Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Oxidising substance: it enhances combustion of other substances

**10.2. Chemical stability**

Stable under recommended storage and handling. Please refer to section 7 of the MSDS.

**10.3. Possibility of hazardous reactions**

Avoid heat, flames and other sources of ignition.

Acids

Don't mix with combustible products.

**10.4. Conditions to avoid**

Avoid contact with fuel, moisture, heat, sparks, flames.

Do not mix with acids. It can be produced toxic gases (chlorine).

Keep away from heat sources.

**10.5. Incompatible materials**

Concentrated acids.

Products containing chlorine.

**10.6. Hazardous decomposition products**

It decomposes to chlorine and oxygen if heated >180°C.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

Toxicological information of the product:

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

Toxicological information of the main substances found in the product:

calcium hypochlorite – CAS: 7778-54-3

**12) acute toxicity:**

Test: LD50 – Route: Oral – Species: Rat = 850 mg/kg

Test: LD50 – Route: Skin – Species: Rabbit > 2000 mg/kg

Test: LD50 – Route: Inhalation – Species: Rat = 1300 mg/l

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Adopt good working practices, so that the product is not released into the environment. This

Barchemicals srl – società a socio unico - Sede Legale ed Operativa : Via S. Allende, 14 - 41051 Castelnuovo Rangone (MO) - Italy  
 Phone 0039 59 536502 - Fax 0039 59 536742 e-mail : info@barchemicals.it - http://www.barchemicals.it  
 Capitale Sociale 99.000,00 € - C.F. e P.I. 01782980369 – C.C.I.A.A. di MODENA n° 01782980369 – R.E.A. 242549  
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is the information on eco-toxicological effects of the individual components.

calcium hypochlorite - CAS: 7778-54-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Bobwhite quail = 3474 mg/kg

Endpoint: LC50 - Species: Daphnia = 0.11 mg/l - Duration h: 48

Endpoint: LC50 - Species: Bluegill sunfish = 0.088 mg/l - Duration h: 96

Endpoint: LC50 - Species: Rainbow trout = 0.16 mg/l - Duration h: 96

**12.2. Persistence and degradability**

N.A.

**12.3. Bioaccumulative potential**

N.A.

**12.4. Mobility in soil**

N.A.

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

vPvB Substances: None - PBT Substances: None

**12.6. Other adverse effects**

None

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

**SECTION 14: Transport information**



**14.1. UN number**

ADR-UN Number: 3487

IATA-UN Number: 3487

IMDG-UN Number: 3487

**14.2. UN proper shipping name**

ADR-Shipping Name: CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE with not less than 5.5% but not more than 16% water

IATA-Shipping Name: CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE with not less than 5.5% but not more than 16% water

IMDG-Shipping Name: CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE with not less than 5.5% but not more than 16% water

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

ADR-Class: 5.1

ADR - Hazard identification number: 58

IATA-Class: 5.1

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IATA-Label:	Corrosive
IMDG-Class:	5.1
<b>14.4. Packing group</b>	
ADR-Packing Group:	II
IATA-Packing group:	II
IMDG-Packing group:	II
<b>14.5. Environmental hazards</b>	
ADR-Environmental Pollutant:	Yes
IMDG-Marine pollutant:	Marine Pollutant
<b>14.6. Special precautions for user</b>	
ADR-Subsidiary risks:	8
ADR-S.P.:	314 322
ADR-Transport category (Tunnel restriction code):	2 (E)
IATA-Passenger Aircraft:	558
IATA-Subsidiary risks:	8
IATA-Cargo Aircraft:	562
IATA-S.P.:	A136 A803
IATA-ERG:	5C
IMDG-EmS:	F-H , S-Q
IMDG-Subsidiary risks:	8
IMDG-Stowage and handling:	Category D
IMDG-Segregation:	Protected from sources of heat. Cargo transport units shall be shaded from direct sunlight. Packages in cargo transport units shall be stowed so as to allow for adequate air circulation throughout the cargo. "Separated from" ammonium compounds, acids, cyanides, hydrogen peroxides and liquid organic substances.
<b>14.7. Transport in bulk according to Annex II of Marpol and the IBC Code</b>	
N.A.	

## **SECTION 15: Regulatory information**

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

Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) 2015/830  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

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Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: E1

**15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

None

**SECTION 16: Other information**

**For professional use**

Full text of phrases referred to in Section 3:

H272 May intensify fire; oxidiser.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

H302 Harmful if swallowed.

EUH031 Contact with acids liberates toxic gas.

Hazard class and hazard category	Code	Description
Ox. Sol. 2	2.14/2	Oxidising solid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1

Paragraphs modified from the previous revision:

Section 1.1 and 1.2, section 2.1 and 2.2, section 3.2, section 4.1, section 5, section 6.2, 6.3 and 6.4, section 7, section 8.2, section 10, section 11.1, section 12.2, section 15.1, section 16.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

For professional use

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

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Barchemicals srl – società a socio unico - Sede Legale ed Operativa : Via S. Allende, 14 - 41051 Castelnovo Rangone (MO) - Italy

Phone 0039 59 536502 - Fax 0039 59 536742 e-mail : info@barchemicals.it - http://www.barchemicals.it

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GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.

**Exclusion of liability clause**

The information contained herein is based on our knowledge as of the date indicated. They refer solely to the product indicated and constitutes no guarantee of particular quality. The user must verify the suitability and completeness of such information in relation to the specific use intended.

This sheet supersedes any previous edition.