

ACTIVATOR

SECTION 1: SUBSTANCE OR MIXTURE IDENTIFICATION AND OF THE COMPANY OR ENTERPRISE

1.1 Product identifying: HCl ACTIVATOR (4%)

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

Relevant uses: Activator to obtain a biocide (chlorine dioxide) in situ, exclusively for water purification.
Uses advised against: Any use not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

MEBENEZER LAB SL 10-A-829-12036593

Pol. Ind. El Campaner V5 Nº1
Alcalá de Xivert (Castellón)
Telf 902750373
EMail:contact@mebenezer.com

Emergency telephone: Serv. Méd. Info. Toxicológica (INTCF): 915.620.420 (24h/365d, information in Spanish only for the purpose of providing a health response in case of emergency)

SECTION 2: HAZARDS IDENTIFICACION

2.1 Substance or mixture classification:

Regulation nº1272/2008 (CLP):

According to Regulation nº1272/2008 (CLP), the product is not classified as dangerous

2.2 Label elements:

Regulation nº1272/2008 (CLP):

None

2.3 Other dangers:

The product does not meet the PBT/vPvB criteria.

SECTION 3: COMPOSITION/INFORMATION ON THE COMPONENTS

3.1 Substance:


Not applicable

3.2 Mixture:

Chemical description: 4% aqueous solution of hydrochloric acid

Components:

According to Annex II of the Regulation (CE) nº1907/2006 (point 3), the product presents:

Identification	Chemical Name/classification		Concentration
CAS: 7647-01-0 CE: 231-595-7 Index: 017-002-01-X REACH:01-2119484862-27- xxxx	Hydrochloric acid⁽¹⁾	Auto classified	2.5-<5%
	Regulation 1272/2008	Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger 	

⁽¹⁾ Substance presenting a risk to health or the environment that meets the criteria set out in the Regulation (UE) nº 2015/830

For more information on the dangers of the substance, see sections 8, 11, 12, 15 y 16.

SECTION 4: FIRST AID

4.1 Description of first aid:

Symptoms as a result of intoxication can occur after exposure, so, in case of doubt, direct exposure to the chemical or persistence of discomfort, seek medical attention, showing the SDS of this product.

By inhalation:

It is a product not classified as dangerous by inhalation, however, it is recommended in case of symptoms of intoxication, to remove the affected from the place of exposure, provide clean air and keep at rest. Request medical attention in case the symptoms persist.

By skin contact:

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SECTION 4: FIRST AID (continued)

It is a product not classified as dangerous in contact with the skin. However, it is recommended in case of contact with the skin to remove contaminated clothing and shoes, rinse the skin or shower the affected person if appropriate with plenty of cold water and neutral soap. In case of an important condition, see a doctor.

By eye contact:

Rinse eyes with plenty of water for at least 15 minutes. In the event that the injured person wears contact lenses, they should be removed as long as they are not glued to the eyes, otherwise additional damage could occur. In all cases, after washing, you should see a doctor as quickly as possible with the product SDS.

By ingestion/aspiration:

Do not induce vomiting, if it occurs, keep your head tilted forward to avoid aspiration. Keep the patient at rest. Rinse the mouth and throat, as there is a possibility that they have been affected during ingestion.

4.2 Main symptoms and effects, both acute and delayed:

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

4.3 Indication of all medical attention and special treatments to be given immediately:

Symptomatic treatment.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinction methods:

Non-flammable product under normal conditions of storage, handling and use. In case of inflammation as a result of tampering, storage or improper use, preferably use polyvalent powder extinguishers (ABC powder), according to the Fire Protection Facilities Regulation (R.D. 513/2017 and subsequent modifications). It is NOT RECOMMENDED to use water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a consequence of combustion or thermal decomposition, reaction by-products are generated that can be highly toxic and, consequently, can present a high health risk.

5.3 Recommendations for firefighters:

Depending on the magnitude of the fire, the use of full protective clothing and self-contained breathing apparatus may be necessary. Have a minimum of emergency facilities or actuators (fire blankets, portable medicine cabinet...) according R.D.486/1997 and subsequent modifications.

Additional provisions:

Act according to the Internal Emergency Plan and the Fact Sheets on actions in case of accidents and other emergencies. Remove any source of ignition. In case of fire, refrigerate containers and storage tanks of products susceptible to inflammation, explosion or BLEVA as a result of high temperatures. Avoid the spillage of the products used in extinguishing the fire to the aquatic environment.

SECTION 6: MEASURES IN CASE OF ACCIDENTAL SPILLAGE

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks as long as it does not pose an additional risk for people who perform this function. In view of the potential exposure with the spilled product, the use of personal protective elements is mandatory (see Section 8). Evacuate the area and keep unprotected people away.

6.2 Environmental precautions:

Product not classified as dangerous for the environment. Keep the product away from drains and surface and groundwater.

6.3 Methods and material for containment and cleaning up:

Recommended:

Absorb spillage using sand or inert absorbent and move it to a safe place. Not absorbent in sawdust or other combustible absorbents. For any consideration regarding disposal consult section 13.

6.4 References to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A. General precautions

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SECTION 7: HANDLING AND STORAGE (continued)

Comply with current legislation on occupational risk prevention. Keep containers tightly closed. Control spills and waste, eliminating them with safe methods (section 6). Avoid free spillage from the container. Maintain order and cleanliness where dangerous products are handled.

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

Non-flammable product under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid generating electrostatic charges that could affect flammable products. See section 10 on conditions and materials to avoid.

C.- Technical recommendations to prevent ergonomic and toxicological hazards.

For exposure control see section 8. Do not eat or smoke in work areas; wash your hands after each use; and get rid of contaminated clothing and protective equipment before entering the eating areas.

D.- Technical recommendations to prevent environmental risks.

It is recommended to have absorbent material in the vicinity of the product (see section 6.3).

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical storage measures

ITC (R.D.656/2017): Not relevant

Classification: Not relevant

T^a minimum: 5 °C

T^a maximum: 35 °C

Maximum time': 36 months

B.- General storage conditions.

Avoid sources of heat, radiation, static electricity and contact with food. Store in a cool, dry place and upright. For additional information see section 10.5

7.3 Specific final uses:

Except for the indications already specified, it is not necessary to make any special recommendations regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposures limit values have to be controlled in the work environment (INSSBT 2018):

There are no environmental limit values for the substances that constitute the product.

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Hydrochloric acid CAS: 7647-01-0 CE: 231-595-7	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Cutaneous	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	15 mg/m ³	Not relevant	8 mg/m ³

DNEL (Population):

Not relevant

PNEC:

Identification				
Hydrochloric acid CAS: 7647-01-0	STP	0,036 mg/L	Freshwater	0,036 mg/L
	Ground	Not relevant	Saltwater	0,036 mg/L
CE: 231-595-7	Intermittent	0,045 mg/L	Sediment (Freshwater)	Not relevant
	Oral	Not relevant	Sediment (Saltwater)	Not relevant

8.2 Exposure controls:

A.- General safety and hygiene measures in the work environment:

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

As a prevention measure, the use of basic personal protective equipment is recommended, with the corresponding CE marking according to R.D.1407/1992 and subsequent modifications. For more information on personal protective equipment (storage, use, cleaning, maintenance, protection class...) consult the information leaflet provided by the EPI manufacturer. The indications contained in this point refer to the pure product. The protection measures for the diluted product may vary depending on its degree of dilution, use, method of application and so on. To determine the obligation to install emergency showers and/or eyewash in warehouses, the regulations regarding the storage of chemical products applicable in each case will be taken into account. For more information see sections 7.1 and 7.2.

All the information included here is a recommendation, being necessary its concretion by the services of prevention of labor risks, when ignoring the additional prevention measures that the company could have or if they have been included in the evaluation of pertinent risks.

B.- Respiratory protection.

The use of protective equipment will be necessary in the case of fog formation or in the case of exceeding occupational exposure limits if they exist (See Section 8.1).

C.- Specific hand protection

Not relevant

D.- Eye and face protection

Not relevant

E.- Body protection

Not relevant

F.- Complementary emergency measures

There is no need to take additional emergency measures.

Environmental exposure controls:

Under Community environmental protection legislation it is recommended to avoid spilling both the product and its packaging into the environment. For additional information, see section 7.1D

Volatile organic compounds:

In application to R.D.117/2003 and subsequent modifications (Directive 2010/75/EU), this product has the following characteristics:

C.O.V. (Supply):	0 % weight
Concentration C.O.V. a 20 °C:	0 kg/m ³ (0 g/L)
Average carbon number:	Not relevant
Average molecular weight:	Not relevant

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

To complete the information, see the technical data sheet/product specification sheet.

Physical appearance:

Physical state at 20 °C:	Liquid
Appearance:	Fluid
Color:	Colorless
Smell:	Characteristic
Olfactory threshold:	Not relevant *

Volatility:

Boiling temperature at atmospheric pressure:	100 °C
Vapor pressure at 20 °C:	2350 Pa
Vapor pressure at 50 °C:	92,87 (12,38 kPa)
Evaporation rate at 20 °C:	Not relevant*

Product characterization:

Density at 20 °C:	1030-1070 kg/m ³
Relative density at 20 °C:	1,030 – 1,070

*Not relevant due to the nature of the product, not providing characteristic information of its danger

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Dynamic viscosity at 20 °C:	1,26 cP
Kinematic viscosity at 20 °C:	1,18 cSt
Kinematic viscosity at 40 °C:	Not relevant *
Concentration:	Not relevant *
pH:	Not relevant *
Vapor density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water at 20 °C:	Not relevant *
Water solubility at 20 °C:	Not relevant *
Solubility property:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/Freezing point:	Not relevant *
Explosive properties:	Not relevant *
Oxidizing properties:	Not relevant *

Inflammability:

Flashpoint:	Non-flammable (>60 °C)
Inflammability (solid, gas):	Not relevant *
Auto-ignition temperature:	Not relevant *
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *

Explosiveness:

Lower explosiveness limit:	Not relevant *
Upper explosiveness limit:	Not relevant *

9.2 Other data:

Surface tension at 20 °C:	Not relevant *
Refractive index:	Not relevant *

*Not relevant due to the nature of the product, not providing characteristic information of its danger.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

Hazardous reactions are not expected if the technical instructions for chemical storage are followed. See section 7.

10.2 Chemical stability:

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

10.3 Possibility of hazardous reactions:

Under the indicated conditions no dangerous reactions are expected that may produce excessive pressure or temperatures.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Air contact	Heating	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidizing materials	Combustible materials	Other
Not applicable	Not applicable	Caution	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See epigraph 10.3, 10.4 and 10.5 for specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released as a result: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

11.1 Information on toxicological effects:

There are no experimental data on the product itself related to toxicological properties.

Dangerous effects for health:

In case of repeated, prolonged exposure or at concentrations higher than those established by occupational exposure limits, adverse health effects may occur depending on the route of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on the available data, the classification criteria are not met, not presenting substances classified as dangerous for ingestion. For more information, see section 3.
- Corrosivity/Irritability: Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for this effect. For more information, see section 3.

B- Inhalation (acute effect):

- Acute toxicity: Based on the available data, the classification criteria are not met, not presenting substances classified as dangerous for inhalation. For more information, see section 3.
- Corrosivity/Irritability: Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for this effect. For more information, see section 3.

C- Skin and eye contact (acute effect):

- Skin contact: Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for this effect. For more information, see section 3.
- Eye contact: Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for this effect. For more information, see section 3.

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

- Carcinogenicity: Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for this effect. For more information, see section 3.
IARC: Not relevant
- Mutagenicity: Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for this effect. For more information, see section 3.
- Toxicity for reproduction: Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for this effect. For more information, see section 3.

E- Sensitization effects:

- Respiratory: In view of the available data, the classification criteria are not met, not presenting substances classified as dangerous with sensitizing effects above the its set out in section 3.2 of the Regulation (CE) 2015/830. For more information, see sections 2,3 and 15.
- Cutaneous: Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for this effect. For more information, see section 3.

F- Specific target organ toxicity (STOT)- unique exposure:

Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for inhalation. For more information, see section 3.

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

- Specific target organ toxicity (STOT)- repeated exposure: Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for this effect. For more information, see section 3.
- Skin: Based on the available data, the classification criteria are not met; however it presents substances classified as dangerous for this effect. For more information, see section 3.

H- Aspiration hazard:

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

Additional information:

Not relevant

Specific toxicological information of the substances:

Not determined

SECTION 12: ECOLOGICAL INFORMATION

There are no experimental data on the mixture itself related to ecotoxicological properties.

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.1 Toxicity:

Not determined

12.2 Persistence and degradability:

Not available

12.3 Bio accumulative potential:

Not determined

12.4 Soil mobility:

Not determined

12.5 Assessment results of PBT and vPvB:

The product does not meet the PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: RELATIVE CONSIDERATIONS TO ELIMINATION

13.1 Waste treatment methods:

Code	Description	Type of waste (Regulation (UE) n° 1357/2014)
	It is not possible to assign a specific code since it depends on the use defined by the user	Not dangerous

Type of waste (Regulation (UE) n° 1357/2014):

Not relevant

Waste management (disposal and recovery):

Consult the authorized waste manager for recovery and disposal operations in accordance with Annex I and Annex II (Directive 2008/98/CE, Law 22/2011). According to codes 15 01 (2014/955/UE) in the event that the package has been in direct contact with the product, it will be managed in the same way as the product itself, otherwise it will be managed as a non-hazardous waste. Its discharge to water courses is not advised. See section 6.2.

Legislative provisions related to waste management:

According to Annex II of the Regulation (CE) n°1907/2006 (REACH) the community or state provisions related to waste management are included.

Community legislation: Directive 2008/98/CE, 2014/955/UE, Regulation (UE) n° 1357/2014

National legislation: Law 22/2011, Royal Decree 180/2015, Law 11/1997

SECTION 14: TRANSPORT INFORMATION

Land transport of dangerous goods:

In application to ADR 2017 and to RID 2017:

14.1 UN number:	Not relevant
14.2 Official designation of transport of the United Nations:	Not relevant
14.3 Class(s) of transport hazard:	Not relevant
Labels:	Not relevant
14.4 Packing group:	Not relevant
14.5 Environmental hazards	No
14.6 Particular precautions for users	
Special provisions:	Not relevant
Tunnel restriction code:	Not relevant
Physicochemical properties:	See section 9
Limited quantities:	Not relevant
14.7 Transport in bulk according to Annex II of the Marpol agreement 73/78 and the IPC code:	Not relevant

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SECTION 14: TRANSPORT INFORMATION (continued)

Maritime transport of dangerous goods:

In application to IMDG 38-16:

14.1 UN number:	Not relevant
14.2 Official designation of transport of the United Nations:	Not relevant
14.3 Class(s) of transport hazard:	Not relevant
Labels:	Not relevant
14.4 Packing group:	Not relevant
14.5 Environmental hazards	No
14.6 Particular precautions for users	
Special provisions:	Not relevant
Fem Code:	
Physicochemical properties:	See section 9
Limited quantities:	Not relevant
Segregation group:	Not relevant
14.7 Transport in bulk according to Annex II of the Marpol agreement 73/78 and the IPC code:	Not relevant

Air transport of dangerous goods:

In application to IATA/OACI 2018:

14.1 UN Number:	Not relevant
14.2 Official designation of transport of the United Nations:	Not relevant
14.3 Class(s) of transport hazard	Not relevant
Labels:	Not relevant
14.4 Packing group:	Not relevant
14.5 Environmental hazards	No
14.6 Particular precautions for users	
Physicochemical properties:	See section 9
14.7 Transport in bulk according To Annex II of the Marpol agreement 73/78 and the IPC code:	Not relevant

SECTION 15: REGULATORY INFORMATION

15.1 Safety and health and environmental regulations and legislation specific to the substance or mixture:

Substances candidates for authorization in the Regulation (CE) 1907/2006 (REACH): Not relevant

Substances included in Annex XIV of REACH (authorization list) and expiration date: Not relevant

Regulation (CE) 1005/2009, on substances that deplete the ozone layer: Not relevant

Active substances which have been included in Article 95 of the Regulation (UE) N° 528/2012: Hydrochloric acid (included for product type 2)

Regulation (UE) No 649/2012, concerning the export and import of hazardous chemicals: Not relevant

Additional labeling: DO NOT INGEST. Keep out of reach of children. Dispose of the contents or container in accordance with current waste treatment legislation. IF MEDICAL ADVICE IS NEEDED, KEEP THE LABEL OR CONTAINER HANDY AND CONSULT THE MEDICAL SERVICE OF TOXICOLOGICAL INFORMATION. (Tel. 91 562 04 20)

Seveso III: Not relevant

Restrictions on the marketing and use of certain hazardous substances and mixtures (Annex XVII of REACH Regulation, etc ...): Not relevant

Particular provisions regarding the protection of people or the environment:

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SECTION 15: REGULATORY INFORMATION (continued)

It is recommended to use the information collected in this safety data sheet as input data in a risk assessment of local circumstances in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other laws:

Regulation (CE) n o 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, and amending and repealing Directives 67/548/CEE and 1999/45/CE and amending the Regulation (CE) n o 1907/2006 and all its subsequent modifications.

15.2 Chemical safety assessment:

The supplier has not carried out chemical safety assessment.

SECTION 16: OTHER INFORMATION

Legislation applicable to safety data sheets:

This safety data sheet has been developed according to ANNEX II –Guide for the elaboration of Safety Data Sheets of the Regulation (CE) N° 1907/2006 (Regulation (UE) n° 2015/830)

Modifications with respect to the previous safety data sheet that affect risk management measures:

Not relevant

Texts of the legislative phrases referred to in section 3:

The phrases indicated do not refer to the product itself, are for informational purposes only and refer to the individual components that appear in section 3

Regulation n°1272/2008 (CLP):

Met. Corr. 1: H290 – It can be corrosive to metals

Skin Corr. 1B: H314 – Causes severe skin burns and serious eye damage

STOT SE 3: H335 – It can irritate the respiratory tract

Advice related to training:

Minimum training in the prevention of occupational hazards is recommended to the personnel who will handle this product, in order to facilitate the understanding and interpretation of this safety data sheet, as well as the product labeling.

Main bibliographic sources:

<http://echa.europa.eu>

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

Abbreviations and acronyms:

ADR: European Agreement concerning the international transport of dangerous goods by road.

IMDG: International Maritime Code of Dangerous Goods

IATA: International Air Transport Association

OACI: International Civil Aviation Organization

DQO: Chemical Oxygen Demand

DBO5: Biological oxygen demand at 5 days

BCF: bio concentration factor

DL50: lethal dose 50

CL50: lethal concentration 50

EC50: effective concentration 50

Log POW: logarithm octane water partition coefficient

Koc: organic carbon partition coefficient

SDS: Safety data sheet

The information contained in this Safety Data Sheet is based on sources, technical knowledge and legislation in force at European and state level, not being able to guarantee its accuracy. This information is not possible to consider as a guarantee of the properties of the product, it is simply a description as to the safety requirements. The methodology and working conditions of the users of this product are beyond our knowledge and control, being the ultimate responsibility of the user to take the necessary measures to adapt to the legislative requirements regarding handling, storage, use and disposal of chemical products. The information in this safety data sheet only refers to this product, which should not be used for purposes other than those specified.