

SAFETY DATASHEET

Version date: 04/22/2020

Version: 01

Section 1: Identification of the chemical product and the company

Identification of the chemical product	:	Exmicror.
Recommended uses	:	Cleaning and disinfection.
Restricted uses	:	Any different use from that informed in this SDS is discouraged.
Supplier's name	:	Importadora HN SpA.
Supplier's address	:	Caupolicán 9291 Galpón D, Quilicura.
Supplier's phone number	:	+56982391698/+56975481858.
Supplier's emergency phone number in Chile	:	+56982391698/+56975481858.
Toxicological information phone number in Chile	:	+56982391698/+56975481858.
Manufacturer's information	:	BIORGÁNICOS ROBECH S. DE R.L. DE C.V. Lago Zumpango 166-67, Cumbres del Lago, Querétaro. PO 76230 Phone: 52 (442) 294-6303.
Supplier's website	:	www.importhn.com c.tok@importhn.com nicolas.juri@importhn.com ventas@importhn.com

Section 2: Hazards identification

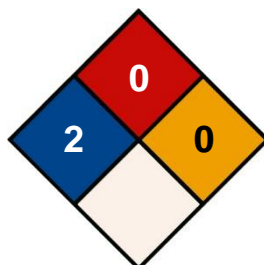
Classification according to NCh382	:	Non hazardous substance.
Distinctive according to NCh2190	:	Does not apply.
Classification according to SGA	:	Eye irritation. 2A category.
SGA tag	:	



Warning word	:	WARNING
Hazard indications	:	H319 Causes severe eye irritation.
Precautionary directions	:	P264 Wash hands carefully after handling. P280 Use eye/face wear equipment. P305 + P351 + P338 IN CASE OF CONTACT WITH THE EYES: Carefully rinse with water for several minutes. Remove contact lenses if there are any and if it can be done easily. Proceed with the washing.

P337 +
P313 If eye irritation persists, look for a doctor.

Safety signal according to NCh1411/4



Specific classification : Does not apply
Specific distinction : Does not apply.
Description of hazards : The product can cause severe eye irritation
Description of hazards specific : No physical nor chemical hazards are identified
Other hazards : None.

Section 3: Composition/information about the components

Substance type : Mixture

Chemical Name	Generic name	Concentration rate	CAS registry number	CE number
2- hidroxypropane-1,2,3-tricarboxylic acid	Citric acid	1-40 %	77-92-9	201-069-1
5- (1,2-dihydroxyethyl) -3,4-dihydroxy-2 (5H) -furanone	DL - Ascorbic acid	1-40 %	62624-30-0	263-644-3
1,2,3-propanetriol	Glicerol, refined glycerine	1-40 %	56-81-5	200-289-5
Water	Water	80-98 %	7732-18-5	231-791-2

Section 4: First aid

Inhalation : Provide the victim with fresh air. Allow the victim to rest. If necessary, ask a doctor for indications.

Contact with the skin : Remove clothes and rinse the exposed skin with soft soap and warm water. in case of irritation, request medical attention.

Contact with the eyes : Carefully rinse with water for several minutes. Remove contact lenses if there are any and if it can be done easily. Keep rinsing and if the eye irritation persist, seek for medical help or advice.

Ingestion : Rinse the mouth. Do not induce vomit. Reach out for medical help.

Expected acute effects : Can cause severe eye irritation.

Expected delayed effects : No chance of expected delayed effects.

Main symptoms/effects : Can cause severe eye irritation.

- Protection of first aid providers** : Individual protection equipment is recommended for the first aid personnel when necessary.
- Special notes for a practitioner** : Inform the practitioner about the product's characteristics and the type of contact. Present this datasheet.

Section 5: Firefighting measures

- Extinguishing agents** : Use foam, dry powder, carbon dioxide, water spray or sand.
- Unfit extinguishing agents** : Avoid direct jet of water, since it can cause dispersion of the material.
- Products that are formed in the thermal combustion and degradation process.** : Combustion products such as carbon dioxide (CO₂) and carbon monoxide (CO) can be generated.
- Specific related hazards** : No specific related hazard is expected
- Specific extinguishing methods** : In the event of a fire, quickly isolate the area, evacuating all persons from the vicinity of the incident site. Use water spray or mist to cool exposed containers. Special care must be taken when fighting any chemical fire. Prevent fire water from entering the environment.
- Precautions for the emergency personnel and firefighters** : In closed or poorly ventilated areas, wear appropriately certified independent positive pressure respiratory equipment.

Section 6: Measures to be taken in the event of accidental spilling

- Personal precautions** : Avoid contact with the product. Avoid inhaling mists or vapors. Ventilate the area. Evacuate personnel to safe zones.
- Protective equipment** : Carry appropriated personal protective equipment (see section 8).
- Emergency procedures** : Safely control the source of the spilling if there is no risk for people. Restrict are access until it is clean. Shut down all ignition sources. Act according to internal procedures during emergencies.
- Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
- Methods and materials for containment, confinement and / or abatement** : This operation should only be carried out by trained personnel. Use non-combustible absorbent and deposit the waste in an appropriate container, label for final disposal.
- Cleaning materials and methods**
- Recovery** : Absorb spills with inert solids, such as clay or diatomaceous dirt as soon as possible. Collect the spill and store away from other materials.
- Neutralization** : Not available.
- Final Disposal** : Proceed according to the national dispositions.
- Additional measures for disaster prevention** : Prevent entry of the spilling into water sources and sewers.

Section 7: Handling and storage

Handling	:	Avoid contact with the eyes, skin and clothes. Do not inhale mists or vapors. Handle with the adequate personal protection equipment (see section 8) and only in well ventilated areas. Keep containers closed when not in use.
Precautions for safe handling	:	
Operational and technical measures	:	Respect the rules for a correct handling of chemical products. Do not smoke, eat or drink when handling the product. Wash hands and face before breaks and immediately after handling the product.
Other precautions	:	In the event of vapors, mechanical ventilation may be needed.
Contact Prevention	:	Avoid contact with incompatible substances
Storage	:	
Conditions for safe storage	:	Keep the container closed when not in use. Store in a cool dry area that is protected from direct sunlight.
Technical measures	:	The storage area must be made of non-combustible material and impermeable floor. In addition, it must be closed, dry, and ventilated, without access to unauthorized personnel.
Incompatible substances and mixtures	:	Incompatible with strong oxidants and bases.
Packaging and / or packaging material	:	<u>Recommended materials:</u> Original containers. <u>Non recommended materials:</u> Not available.

Section 8: Personal protection/exposure controls

Maximum allowable concentration

Limit values (national norm DS 594)			
Components	LPP Value	LPT Value	LPA Value
2- hidroxypropane-1,2,3-tricarboycilic acid	Not established	Not established	Not established
5- (1,2-dihidroxietyl) -3,4-dihidroxi-2 (5H)-furanone	Not established	Not established	Not established
1,2,3-propanetriol	Not established	Not established	Not established

Componentes	Limit values (international norm)		
2- hidroxypropane-1,2,3-tricarboycilic acid	ACGIH (TWA)	:Not established	
	NIOSH (TWA)	:Not established :	
	OSHA (TWA)	Not established.	
5-(1,2-dihidroxietyl)-3,4-dihidroxi-2(5H)-furanone	ACGIH (TWA)	: Not established.	
	NIOSH (TWA)	:Not established.	
	OSHA (TWA)	: Not established.	
1,2,3-propanetriol	ACGIH (TWA)	: Not established	
	NIOSH (TWA)	: Not established	
	OSHA (TWA)	: 15 mg/m ³ (total powder, 5 mg/m ³ (breathable).	

Personal protection elements

Respiratory protection	:	Respiratory protection is not required under normal conditions. In an emergency, it is recommended to use a respirator for organic vapors.
Hands protection	:	Wear protective gloves, if there is hypersensitivity irritation.

Personal protection elements

- Eyes protection** : Wear airtight safety glasses (goggles).
- Skin and body protection** : The type of protective equipment must be chosen according to the concentration and quantity of product in the specific workplace. Waterproof clothing is recommended.
- Engineering** : Study alternative engineering controls to keep contaminant concentrations low (eg natural / forced ventilation). It is recommended to have first aid supplies (example: fixed or portable eyewash).

Section 9: Physical and chemical properties

Physical state	: Líquid.
Presentation	: Transparent liquid.
Color	: Transparent.
Smell	: Cítricos.
pH (concentration and t°)	: 5.50 - 7.00.
Melting point/freezing point	: Not available.
Boiling point, initial boiling point and boiling range	: 99.98 °C.
Flashpoint	: Not available.
Explosivity or flammability limits	: Not available.
Vapor pressure	: 750 mmHg.
Relative vapor density (air= 1)	: 0.1 g/ml at 100 °C.
Density	: Not available.
Solubility	: Complete solubility in water
Coctanol / water partition coefficient	: Not available.
Self ignition temperature	: Not available.
Descomposition temperature	: Not available.
Odour threshold	: Not available.
Evaporation rate	: Not available.
Flammability(solid, gas)	: Does not apply.
Viscosity	: Not available.

Section 10: Stability and reactivity

- Chemical stability** : The product is stable under normal storage, pressure and temperature conditions.
- Hazardous reactions** : Hazardous type reactions are not expected.
- Conditions to be avoided** : Avoid direct sunlight and extremely high/low temperatures.
- Incompatible substances** : Incompatible with strong oxidants and bases.
- Products of hazardous degradation** : Combustion products such as carbon dioxide (CO₂) and carbon monoxide (CO) can be generated.

Section 11: Toxicological information

Acute toxicity (LD₅₀ and LC₅₀)

: Toxicological information:

Product	Oral ATE	Dermal ATE	Inhalation ATE
EXMICROR	10000 mg/kg	3171 mg/kg	Not available

ATE: Acute toxicity estimate

Components	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
2-hidroxypropane-1,2,3-tricarboycilic acid	5400 mg/kg (Mouse)	> 2000 mg/kg (Rat)	Not Available
5-(1,2-dihidroxietyl)-3,4-dihidroxi-2(5H)-furanona	Not Available	Not Available	Not Available
1,2,3-propanetriol	126000 mg/kg (Rat)	10-000 mg/kg (Rabbit)	> 570 mg/m ³ (1hr -Rat)

Skin irritation/corrosion

: The product is not classified as skin irritant, according to GHS criteria.

Severe eye injuries/eye irritation

: The product is classified as cause of eye irritation (Category 2, H319) according to GHS criteria.

Respiratory or skin sensitization

: The product is not classified as cause of skin sensitization, according to GHS criteria.

Mutagenicity of reproductive/in vitro cell Carcinogenicity

: The product is not classified as mutagenic according to GHS criteria.
: The product is not classified as carcinogenic, according to GHS criteria and the List of carcinogenic substances (IARC,2019).

Reproductive toxicity

: The product is not classified as toxic for reproduction, according to GHS criteria.

Specific toxicity in particular organs -one time exposure

: The product is not classified as especially toxic to particular organs (one time exposure) according to GHS criteria.

Specific toxicity in particular organs -repeated exposure

: The product is not classified as especially toxic to particular organs (repeated exposure) according to GHS criteria.

Aspiration hazard

: The product is not classified as aspiration hazard, according to GHS criteria.

Toxicokinetics

: Not available.

Metabolism

: Not available.

Distribution

: Not available.

Pathogenicity and acute infectivity (oral, dermal and respiratory)

: Does not apply.

Endocrine disruption

: Not available.

Neurotoxicity

: Not available.

Immunotoxicity

: Not available.

Related symptoms

: Not available.

Immediately dangerous limit to life or health (IDLH)	:	Not available.
Inhalation exposure routes	:	No relevant effects are expected.
Contact with the skin	:	Can cause mild skin irritation on hyper sensitive individuals.
Contact with the eyes	:	Can cause severe eye irritation
Ingestion	:	No relevant effects are expected.

Section 12: Ecological information

Ecotoxicity (EC, IC and LC)	:	<p><u>Acute ecotoxicity: 2-hydroxypropane-1,2,3-tricarboxylic acid.</u> <i>Fish</i>, LC₅₀: 1440 mg/L (96 h). <i>Invertebrates, Daphnia magna</i>, EC₅₀: 11534 mg/L (48 h).</p> <p><u>Cronical ecotoxicity: 5- (1,2-dihydroxyethyl) -3,4-dihydroxy-2 (5H) - furanone.</u> Not available.</p> <p><u>Acute and cronical ecotoxicity: (2 S) -2 - [(1 R) -1,2-dihydroxyethyl] - 3,4-dihidroxi- 2H -furan-5-one.</u> Not available.</p> <p><u>Acute ecotoxicity: 1,2,3-propanetriol.</u> <i>Fish</i>, LC₅₀: > 5000 mg/L (96 h). <i>Invertebrates, Daphnia</i>, EC₅₀: > 10 g/L (24 h). <i>Bacteria, Pseudomona</i>, EC₅₀:> 10 g/L (16 h).</p> <p><u>Cronical ecotoxicity: 1,2,3-propanetriol.</u> Not available.</p>
Persistence and degradability	:	<p>2-hydroxypropane-1,2,3-tricarboxylic acid. Easily biodegradable. Biodegradability: 97%. Time: 28 days.</p> <p>1,2,3-propanetriol. Easily biodegradable. Biodegradability: 94%. Time: 24 días.</p>
Bioaccumulability potential	:	<p>2-hydroxypropane-1,2,3-tricarboxylic acid. Not bioaccumulable (Log pow: -1.72).</p> <p>1,2,3-propanetriol. Not bioaccumulable (Log pow: -1,75)</p>
Mobility in soil	:	Not available.
Other adverse effects	:	The product is not classified as hazardous for the environment, according to GHS criteria.

Section 13: Information about the final disposal

Safe and environmentally sound final disposal methods for contaminated waste, packagings and any contaminated material, in accordance with the current national regulations.	:	The substance / waste is not specified as “dangerous” waste in DS 148 Health Regulation on the management of hazardous waste, (Articles 18, 88, 89 and 90). It is the responsibility of the waste generator to identify its level of danger, handle it and dispose of it properly, complying with current national legislation.
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Sección 14: Information about transport

	Transport mode		
	Ground	Sea	Air
Regulations	DS 298	IMDG	IATA
UN Number	Does not apply	Does not apply	Does not apply
Official transport designation	Non-dangerous substance	Non-dangerous substance	Non-dangerous substance
UN primary hazard classification	Does not apply	Does not apply	Does not apply
UN secondary hazard classification	Does not apply	Does not apply	Does not apply
Packing group / container	Does not apply	Does not apply	Does not apply
Environmental hazards	See section 12	See section 12, the product is not listed as a marine pollutant	See section 12
Special precautions	None	None	None
Transport in bulk according to annex II of the Marpol 73/78 agreement and the IBC code.	The product is not listed in Annex II of the Marpol agreement 73/78 and the IBC code.		

Section 15: Reglamentary information

- National regulations** :
- NCh2245 In force.** Chemical safety data sheet-content and order of sections.
 - NCh1411 / 4 In force.** Hazard prevention - Part 4: identification of material hazards.
 - DS N ° 40 In force.** Regulation on prevention of professional hazards.
 - DS N ° 594 In force.** Regulation on basic sanitary and environmental conditions in the workplace
- International regulations** :
- NFPA 704, 2017.** Regulatory system for identifying the risks of materials for emergency response.
 - USA:** Substance is not listed as a dangerous substance (DOT)
 - OSHA.** Occupational Safety and Health Administration.
 - NIOSH.** The National Institute for Occupational Safety and Health.
 - ACGIH.** American Conference of Governmental Industrial Hygienist
 - GHS.** Globally Harmonized System of Classification and Labeling of Chemical Products.
 - REACH.** Regulation (EC) No. 1907/2006 of the European Parliament and of the Council regarding the registration, evaluation, authorization and restriction of chemical substances and preparations.
 - CLP.** Regulation (EC) 1272/2008 of the European Parliament and of the Council on the classification, labeling and packaging of substances and mixtures.
 - ANNEX V OF THE MARPOL CONVENTION 73/78.** International Convention to Prevent Pollution from Ships.
 - IMSBC CODE.** International Maritime Code for solid bulk cargoes.
 - IMDG CODE.** International Maritime Dangerous Goods.
 - IATA CODE.** International Air Transport Association.

The receiver should check the possible existence of local regulations that affect the chemical product.

Section 16: Other information

- Changes control** : First version.
- Abbreviations and acronyms** :
- LC₅₀** : Mean Lethal Concentration.
 - LD₅₀** : Mean Lethal Dossage
 - EC₅₀** : Mean effective concentration.
 - Log Pow** : Octanol / water partition coefficient.
 - LPP** : Weighted allowable limit.
 - LPT** : Temporary allowable limit.
 - PEL** : Allowable exposure limit.
 - REL** : Suggested exposure limit.
 - TLV** : Threshold limit value.
 - TWA** : Time-weighted average.
 - IDLH** : Immediately dangerous limit to life and health.
 - ST** : Short Term Exposure Limit.
 - CAS** : Chemical Abstracts Service.
 - ACGIH** : American Conference of Governmental Industrial Hygienists.
- NIOSH** : National Institute of Occupational Safety and Health.
- OSHA** : Occupational Safety and Health Administration
- GHS** : Globally Harmonized System of Classification and Labeling of Chemical Products.
- IMDG** : International Maritime Dangerous Goods.
- IATA** : International Air Transport Association.
- Bibliographical references** :
- Last seen: Abril-2020
 - <http://www.ourstolenfuture.org/Basics/chemlist.htm>
 - http://risctox.istas.net/dn_risctox_buscador.asp
 - <http://echa.europa.eu/information-on-chemicals>
 - <https://www.osha.gov/dsg/annotated-pels/tablez-3.html>
- Guidelines** :
- This Safety Data Sheet (SDS) has been approved according to the requirements and formats required by NCh2245: 2015. This is made from the original SDS of the product (Exmicror- Biorgánicos Robech S. de R.L. de C.V.), and complemented with valid technical references (Importadora HN SpA.)
 - This document provides basic information which is necessary to prevent hazards or address situations that may arise during exposure to this product (Obligation to inform - Supreme Decree No. 40).The information contained in this SDS is for public use.
- Technical standardization in Spanish accordance with the NCh2245. In force.** :
- Prepared by: M. Ximena Saavedra P.
 - Reviewed by: Katherine Medina V.
 - Approved by: Carlos Tok and Nicolás Juri

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