

# SAFETY DATA SHEET



**AZUGRO®**

Version	Revision Date:	SDS Number:	Date of last issue: -
3.0	24.06.2025	50002630	Date of first issue: 20.06.2022

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## SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE COMPANY OR UNDERTAKING

Chemical product identification : AZUGRO®

### Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Can be used as herbicide only.  
Herbicide

Restrictions on use : Use as recommended by the label.

### Details of the supplier of the safety data sheet

Company name of supplier : FMC QUIMICA CHILE LTDA

Supplier's address : AVDA VITACURA 2670,  
PISO 15, LAS CONDES,  
VITACURA, SANTIAGO, CHILE  
+56 2 28204200

E-mail address : SDS-Info@fmc.com

Emergency and toxicological information number in Chile : Chile: Spills: CITUC: +56 2 2247 3600 (24 hours) Fire: 132 (24 hours)  
+56-22-5814934 (CHEMTREC - Chile)  
1 703 / 741-5970 (CHEMTREC - International)

Medical Emergency Number : Chile: CITUC: +56 2 2635 3800 (24 hours)

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## SECTION 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Acute toxicity (Inhalation) : Category 4

Long-term (chronic) aquatic hazard : Category 1

### Label elements

Hazard pictograms :



Signal Word : WARNING

Hazard Statements : H332 Harmful if inhaled.  
H410 Very toxic to aquatic life with long lasting effects.

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## Precautionary Statements

:

### Prevention:

P261 Avoid breathing mist or vapors.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.

### Response:

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
P391 Collect spillage.

### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

## Other hazards

None known.

## SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

### Components

Systematic chemical name	Common Name	CAS-No.	Concentration or range (% w/w)	Classification
bixlozone (ISO)	Bixlozone	81777-95-9	>= 30 - < 50	Acute toxicity (Inhalation), Category 4 Short-term (acute) aquatic hazard, Category 1 Long-term (chronic) aquatic hazard, Category 1
1,2-benzisothiazol-3(2H)-one	1,2-Benzisothiazol-3(2H)-one	2634-33-5	>= 0,025 - < 0,1	Acute toxicity (Oral), Category 4 Skin corrosion/irritation, Category 2 Serious eye damage/eye irritation, Category 1 Skin sensitization, Category 1 Short-term (acute) aquatic hazard, Category 1 Long-term (chronic) aquatic hazard, Category 2

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## SECTION 4. FIRST AID MEASURES

- |   |   |
|---|---|
| General advice  | : Move out of dangerous area.<br>Show this material safety data sheet to the doctor in attendance.<br>Do not leave the victim unattended.   |
| Inhalation  | : Consult a physician after significant exposure.<br>If unconscious, place in recovery position and seek medical advice.  |
| Skin contact  | : Wash off with soap and water.<br>If symptoms persist, call a physician.<br>Wash contaminated clothing before re-use.  |
| Eye contact   | : Flush eyes with water as a precaution.<br>Remove contact lenses.<br>Protect unharmed eye.<br>Keep eye wide open while rinsing.<br>If eye irritation persists, consult a specialist. |
| Ingestion   | : Keep respiratory tract clear.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.       |
| Most important symptoms and effects, both acute and delayed | : Harmful if inhaled.   |
| Protection of first-aiders                                  | : Avoid inhalation, ingestion and contact with skin and eyes.   |
| Notes to physician  | : Treat symptomatically.  |

## SECTION 5. FIRE-FIGHTING MEASURES

- |                                |   |
|--------------------------------|---|
| Suitable extinguishing media   | : Dry chemical, CO <sub>2</sub> , water spray or regular foam.  |
| Unsuitable extinguishing media | : Do not spread spilled material with high-pressure water streams.  |
| Hazardous combustion products  | : Fire may produce irritating, corrosive and/or toxic gases.<br>Chlorinated compounds<br>Hydrogen cyanide<br>Nitrogen oxides (NO <sub>x</sub> )<br>Carbon oxides<br>Hydrogen chloride |
| Related specific hazards       | : Do not allow run-off from fire fighting to enter drains or water courses.   |
| Specific extinguishing methods | : Remove undamaged containers from fire area if it is safe to do so.  |

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Use a water spray to cool fully closed containers.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Recommendations for fire-fighters : Firefighters should wear protective clothing and self-contained breathing apparatus.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Evacuate personnel to safe areas. Use personal protective equipment. If it can be safely done, stop the leak. Do not touch or walk through the spilled material.
Environmental precautions	: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and material for containment and cleaning up	: Never return spills in original containers for re-use. Collect as much of the spill as possible with a suitable absorbent material. Pick up and transfer to properly labeled containers. Keep in suitable, closed containers for disposal.

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## SECTION 7. HANDLING AND STORAGE

### Handling

Precautions for safe handling	: Avoid formation of aerosol. Do not breathe vapors/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.
Operational and technical measures	: Normal measures for preventive fire protection.
Contact prevention	: Avoid contact with skin, eyes and clothing. Do not inhale aerosol. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

**Conditions for safe storage, including any incompatibilities**

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Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

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

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control parameters**

Contains no substances with occupational exposure limit values.

### **Personal protective equipment**

Eye/face protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

Skin protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hand protection  
Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

Protective measures : Plan first aid action before beginning work with this product.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

### **Information on basic physical and chemical properties**

Physical state : liquid

Form : liquid

Color : beige

Odor : characteristic

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Odor Threshold	:	No data available
pH	:	7,34 (20 °C) (undiluted)
Melting point/ range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	102 - 110 °C  Method: closed cup
Evaporation rate	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Vapor density	:	No data available
Relative density	:	1,1214 (20 °C) Method: OECD Test Guideline 109
Density	:	No data available
Solubility(ies) Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, dynamic	:	103 mPa.s ( 20 °C) Method: OECD Test Guideline 114  75,5 mPa.s ( 40 °C) Method: OECD Test Guideline 114
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	Non-oxidizing

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### Other information

Surface tension	:	37,2 mN/m, OECD Test Guideline 115 46,71 mN/m, 1 g/l, OECD Test Guideline 115
Metal corrosion rate	:	Not corrosive to metals.
Particle Size Distribution	:	D10 = 1,489 µm D50 = 2,932 µm D90 = 6,002 µm
Molecular weight	:	Not applicable
Particle size	:	3,425 µm
Self-ignition	:	423 °C

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	Avoid extreme temperatures. Avoid formation of aerosol.
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	:	No hazardous decomposition products are known.

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Harmful if inhaled.

### Product:

Acute oral toxicity	:	LD50(Rat, female): > 2.000 mg/kg Method: OECD Test Guideline 425 Symptoms: Fatality, hypoactivity, Breathing difficulties Assessment: The component/mixture is minimally toxic after single ingestion.
Acute inhalation toxicity	:	LC50(Rat, male and female): > 2,04 mg/l

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Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Symptoms: Breathing difficulties  
Assessment: The component/mixture is moderately toxic after short term inhalation.  
Remarks: no mortality

Acute dermal toxicity : LD50(Rat, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The component/mixture is minimally toxic after single contact with skin.  
Remarks: no mortality

### Components:

#### **bixlozone (ISO):**

Acute oral toxicity : LD50 (Rat, female): > 2.000 mg/kg  
Method: OECD Test Guideline 425  
Symptoms: hypoactivity, Breathing difficulties  
GLP: yes  
Assessment: The component/mixture is minimally toxic after single ingestion.  
Remarks: no mortality  
Minimal effects that do not meet the threshold for classification.

Acute inhalation toxicity : LC50 (Rat, male and female): > 2,11 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Symptoms: Breathing difficulties  
GLP: yes  
Remarks: no mortality

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Symptoms: Irritation  
GLP: yes  
Assessment: The component/mixture is minimally toxic after single contact with skin.  
Remarks: no mortality  
Minimal effects that do not meet the threshold for classification.

#### **1,2-benzisothiazol-3(2H)-one:**

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity



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### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

#### Product:

Species	:	Rabbit
Assessment	:	No skin irritation
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

#### Components:

##### **bixlozone (ISO):**

Species	:	Rabbit
Assessment	:	Not classified as irritant
Method	:	OECD Test Guideline 404
Result	:	slight or no skin irritation.
GLP	:	yes
Remarks	:	Minimal effects that do not meet the threshold for classification.

##### **1,2-benzisothiazol-3(2H)-one:**

Species	:	Rabbit
Exposure time	:	72 h
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

### Serious eye damage or eye irritation

Based on available data, the classification criteria are not met.

#### Product:

Species	:	Rabbit
Assessment	:	No eye irritation
Method	:	OECD Test Guideline 405
Result	:	No eye irritation

#### Components:

##### **bixlozone (ISO):**

Species	:	Rabbit
Assessment	:	Not classified as irritant
Method	:	OECD Test Guideline 405
Result	:	Slight or no eye irritation
GLP	:	yes
Remarks	:	Minimal effects that do not meet the threshold for classification.

##### **1,2-benzisothiazol-3(2H)-one:**

Species	:	Bovine cornea
Method	:	OECD Test Guideline 437
Result	:	No eye irritation

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Species	:	Rabbit
Method	:	EPA OPP 81-4
Result	:	Irreversible effects on the eye

### Respiratory or skin sensitization

#### Skin sensitization

Based on available data, the classification criteria are not met.

#### Respiratory sensitization

Based on available data, the classification criteria are not met.

#### Product:

Test Type	:	Local lymph node assay (LLNA)
Assessment	:	Not a skin sensitizer.
Method	:	OECD Test Guideline 429
Result	:	Not a skin sensitizer.
GLP	:	yes

#### Components:

##### **bixlozone (ISO):**

Test Type	:	Local lymph node assay (LLNA)
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitization.
GLP	:	yes

##### **1,2-benzisothiazol-3(2H)-one:**

Test Type	:	Maximization Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	May cause sensitization by skin contact.

Species	:	Guinea pig
Method	:	FIFRA 81.06
Result	:	May cause sensitization by skin contact.

### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### Product:

Genotoxicity in vitro	:	Test Type: Ames test Method: OECD Test Guideline 471 Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Rat Method: OECD Test Guideline 474 Result: negative

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### Components:

#### **bixlozone (ISO):**

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: yes

Test Type: In vitro mammalian cell gene mutation test  
Test system: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 490  
Result: negative  
GLP: yes

Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative  
GLP: yes

Genotoxicity in vivo : Test Type: Micronucleus test  
Cell type: Bone marrow  
Method: OECD Test Guideline 474  
Result: negative  
GLP: yes

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

#### **1,2-benzisothiazol-3(2H)-one:**

Genotoxicity in vitro : Test Type: gene mutation test  
Test system: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

Test Type: Ames test  
Method: OECD Test Guideline 471  
Result: negative

Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: positive

Genotoxicity in vivo : Test Type: unscheduled DNA synthesis assay  
Species: Rat (male)  
Cell type: Liver cells  
Application Route: Ingestion  
Exposure time: 4 h  
Method: OECD Test Guideline 486  
Result: negative

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	Test Type: Micronucleus test Species: Mouse Application Route: Oral Method: OECD Test Guideline 474 Result: negative
Germ cell mutagenicity - Assessment	: Weight of evidence does not support classification as a germ cell mutagen.

Based on available data, the classification criteria are not met.

Species	:	Rat, female
Application Route	:	Oral
Exposure time	:	2 Years
NOAEL	:	167 mg/kg bw/day
Method	:	OECD Test Guideline 453
Result	:	negative
GLP	:	yes

Based on available data, the classification criteria are not met.

Effects on fertility	:	Test Type: Two-generation study
		Species: Rat, male
		General Toxicity Parent: NOAEL: 140 mg/kg bw/day
		Early Embryonic Development: NOAEL: 34 - 60 mg/kg bw/day
		Method: OECD Test Guideline 416
		GLP: yes

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Oral  
General Toxicity Maternal: NOAEL: 75 mg/kg bw/day  
Embryo-fetal toxicity.: NOAEL: 550 mg/kg bw/day

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Method: OECD Test Guideline 414  
Result: negative  
GLP: yes

Test Type: Embryo-fetal development  
Species: Rabbit  
Application Route: Oral  
Dose: 25, 75, 200, 400 mg/kg bw/day  
General Toxicity Maternal: NOAEL: 400 mg/kg bw/day  
Embryo-fetal toxicity.: NOAEL: 400 mg/kg bw/day  
Method: OECD Test Guideline 414  
Result: negative  
GLP: yes

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

### **1,2-benzisothiazol-3(2H)-one:**

Effects on fertility : Species: Rat, male  
Application Route: Ingestion  
General Toxicity Parent: NOAEL: 18,5 mg/kg body weight  
General Toxicity F1: NOAEL: 48 mg/kg body weight  
Fertility: NOAEL: 112 mg/kg bw/day  
Symptoms: No effects on reproduction parameters.  
Method: OPPTS 870.3800  
Result: negative

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

### **Specific particular organ toxicity - single exposure**

Based on available data, the classification criteria are not met.

### **Specific particular organ toxicity - repeated exposure**

Based on available data, the classification criteria are not met.

### **Components:**

#### **1,2-benzisothiazol-3(2H)-one:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### **Repeated dose toxicity**

### **Components:**

#### **bixlozone (ISO):**

Species : Rat, male  
NOAEL : 121 mg/kg bw/day  
Application Route : Oral - feed  
Exposure time : 90 days  
Method : OECD Test Guideline 408  
GLP : yes

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Species	: Rat, female
NOAEL	: 351 mg/kg bw/day
Application Route	: Oral - feed
Exposure time	: 90 days
Method	: OECD Test Guideline 424
GLP	: yes
Target Organs	: Nervous system

Species	: Rat, male
NOAEL	: 359 mg/kg bw/day
Application Route	: Oral - feed
Exposure time	: 28 days
Method	: OECD Test Guideline 407
GLP	: yes
Target Organs	: Liver

Species	: Rat
NOAEL	: 1000 mg/kg bw/day
Application Route	: Dermal
Exposure time	: 21 d
Method	: OECD Test Guideline 410
GLP	: yes

### **1,2-benzisothiazol-3(2H)-one:**

Species	: Rat, male and female
NOAEL	: 15 mg/kg
Application Route	: Ingestion
Exposure time	: 28 d
Method	: OECD Test Guideline 407
Symptoms	: Irritation

Species	: Rat, male and female
NOAEL	: 69 mg/kg
Application Route	: Ingestion
Exposure time	: 90 d
Symptoms	: Irritation, Reduced body weight

### **Inhalation hazard**

Based on available data, the classification criteria are not met.

### **Components:**

#### **bixlozone (ISO):**

The substance does not have properties associated with aspiration hazard potential.

### **Neurological effects**

### **Components:**

#### **bixlozone (ISO):**

No neurotoxicity observed in animal studies.

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## Further information

### Product:

Remarks : No data available

## SECTION 12. ECOLOGICAL INFORMATION

### Toxicity

#### Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 32 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : LC50 (Americamysis bahia (mysid shrimp)): 1,4 mg/l  
Exposure time: 96 h  
Test Type: static test

NOEC (Americamysis bahia (mysid shrimp)): 0,78 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OCSP 850.1035

EC50 (Daphnia magna (Water flea)): 61 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (algae)): 13 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Method: OECD Test Guideline 201

EyC50 (Pseudokirchneriella subcapitata (algae)): 27 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to soil dwelling organisms : LC50: 654,7 mg/kg  
Exposure time: 14 d  
Species: Eisenia fetida (earthworms)  
  
Method: OECD Test Guideline 216  
Remarks: No significant adverse effect on Nitrogen mineralization.

Method: OECD Test Guideline 217  
Remarks: No significant adverse effect on Carbon mineralization.

Toxicity to terrestrial organisms : LD50: > 2.000 mg/kg  
Species: Colinus virginianus (Bobwhite quail)

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Method: OECD Test Guideline 223

LOEC: > 5.000 mg/kg  
Species: *Colinus virginianus* (Bobwhite quail)  
Method: OECD Test Guideline 205

LD50: > 100 µg/bee  
End point: Acute contact toxicity  
Species: *Apis mellifera* (bees)  
Method: OECD Test Guideline 214

LD50: > 111 µg/bee  
End point: Acute oral toxicity  
Species: *Apis mellifera* (bees)  
Method: OECD Test Guideline 213

### Ecotoxicology Assessment

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

### Components:

#### **bixlozone (ISO):**

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 9,8 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

LC50 (*Cyprinodon variegatus* (sheepshead minnow)): > 14 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

NOEC (*Cyprinodon variegatus* (sheepshead minnow)): 2,2 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

LC50 (*Lepomis macrochirus* (Bluegill sunfish)): > 13 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

NOEC (*Lepomis macrochirus* (Bluegill sunfish)): 3,2 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes



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NOEC (Cyprinodon variegatus (sheepshead minnow)): 2,2 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Thamnocephalus platyurus): 0,11 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

EC50 (Daphnia magna (Water flea)): 13 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : ErC10 ( Myriophyllum spicatum): 0,0071 mg/l  
Exposure time: 14 d  
Method: OECD Test Guideline 239

ErC50 ( Pseudokirchneriella subcapitata (microalgae)): 14 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
GLP: yes

EC50 ( Skeletonema costatum (marine diatom)): 0,76 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201

EC10 ( Skeletonema costatum (marine diatom)): 0,24 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC: 0,38 mg/l  
Exposure time: 32 d  
Species: Pimephales promelas (fathead minnow)  
Test Type: Early Life-Stage  
Method: OECD Test Guideline 210  
GLP: yes

NOEC: 0,1 mg/l  
End point: reproduction  
Exposure time: 21 d  
Species: Pimephales promelas (fathead minnow)  
Test Type: flow-through test  
Method: OECD Test Guideline 229  
GLP: yes

Toxicity to daphnia and other : NOEC: 3,1 mg/l

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aquatic invertebrates (Chronic toxicity)

Exposure time: 21 d  
Species: *Daphnia magna* (Water flea)  
Test Type: Static renewal test  
Method: OECD Test Guideline 211  
GLP: yes

NOEC: 0,12 mg/l  
Exposure time: 28 d  
Species: *Americamysis bahia* (mysid shrimp)  
Test Type: Reproduction Test  
Method: OPPTS 850.1350

Toxicity to soil dwelling organisms

: LC50: 607 mg/kg  
Species: *Eisenia fetida* (earthworms)  
Method: OECD Test Guideline 207  
GLP: yes

Method: OECD Test Guideline 217  
Remarks: No significant adverse effect on Carbon mineralization.

Method: OECD Test Guideline 216  
Remarks: No significant adverse effect on Nitrogen mineralization.

Toxicity to terrestrial organisms

: LC50: > 5.000 mg/kg  
Species: *Anas platyrhynchos* (Mallard duck)  
Method: OECD Test Guideline 206

LOEC: 122 mg/kg  
End point: Reproduction Test  
Species: *Anas platyrhynchos* (Mallard duck)  
Method: OECD Test Guideline 206  
GLP: yes

NOEC: 69,6 mg/kg  
End point: Reproduction Test  
Species: *Anas platyrhynchos* (Mallard duck)  
Method: OECD Test Guideline 206  
GLP: yes

NOEL: 2.000 mg/kg  
Species: *Colinus virginianus* (Bobwhite quail)  
Method: OPPTS 850.2100

NOEC: 77,7 mg/kg  
End point: Reproduction Test  
Species: *Colinus virginianus* (Bobwhite quail)  
Method: OECD Test Guideline 206

LOEC: 103 mg/kg  
End point: Reproduction Test  
Species: *Colinus virginianus* (Bobwhite quail)  
Method: OECD Test Guideline 206

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GLP: yes

LD50: > 100 µg/bee  
End point: Acute contact toxicity  
Species: Apis mellifera (bees)  
Method: OECD Test Guideline 214

LD50: > 100 µg/bee  
End point: Acute oral toxicity  
Species: Apis mellifera (bees)  
Method: OECD Test Guideline 213

NOEC: ca. 9,5 µg/bee  
Exposure time: 10 d  
Species: Apis mellifera (bees)  
GLP: yes  
Remarks: Dietary

LD50: 59 µg/bee  
Exposure time: 72 h  
End point: honey bee larval toxicity test  
Species: Apis mellifera (bees)  
Method: OECD 237  
GLP: yes

NOED: 6,3 µg/bee  
Exposure time: 22 d  
End point: honey bee larval toxicity test  
Species: Apis mellifera (bees)  
GLP: yes  
Remarks: Dietary

### Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

### 1,2-benzisothiazol-3(2H)-one:

Toxicity to fish : LC50 (Cyprinodon variegatus (sheepshead minnow)): 16,7 mg/l  
Exposure time: 96 h  
Test Type: static test

LC50 (Oncorhynchus mykiss (rainbow trout)): 2,15 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2,9 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EC50 ( Pseudokirchneriella subcapitata (green algae)): 0,070

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plants	mg/l Exposure time: 72 h Method: OECD Test Guideline 201  NOEC ( Pseudokirchneriella subcapitata (green algae)): 0,04 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	: 10
Toxicity to microorganisms	: EC50 (activated sludge): 24 mg/l Exposure time: 3 h Test Type: Respiration inhibition Method: OECD Test Guideline 209  EC50 (activated sludge): 12,8 mg/l Exposure time: 3 h Test Type: Respiration inhibition Method: OECD Test Guideline 209

### Persistence and degradability

#### Components:

##### **bixlozone (ISO):**

Biodegradability	: Result: Not readily biodegradable. Method: OECD Test Guideline 301B
Stability in water	: Hydrolysis: < 5 % at 25 °C(30 d) Method: OECD Test Guideline 111 GLP: yes Remarks: Does not readily hydrolyze
Photodegradation	: Method: OECD Test Guideline 316 Remarks: Decomposes slowly in contact with light.

##### **1,2-benzisothiazol-3(2H)-one:**

Biodegradability	: Result: rapidly biodegradable Method: OECD Test Guideline 301C
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### Bioaccumulative potential

#### Product:

Bioaccumulation	: Remarks: No data available
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#### Components:

##### **bixlozone (ISO):**

Bioaccumulation	: Species: Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): 100
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Method: OECD Test Guideline 305  
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 3,3 (20 °C)  
pH: 4 - 9  
Method: OECD Test Guideline 107

### **1,2-benzisothiazol-3(2H)-one:**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
Exposure time: 56 d  
Bioconcentration factor (BCF): 6,62  
Method: OECD Test Guideline 305  
Remarks: Substance is not persistent, bioaccumulative, and toxic (PBT).

Partition coefficient: n-octanol/water : log Pow: 0,7 (20 °C)  
pH: 7  
  
log Pow: 0,99 (20 °C)  
pH: 5

### **Mobility in soil**

#### **Components:**

##### **bixlozone (ISO):**

Distribution among environmental compartments : log Koc: 2 - 3  
Method: OECD Test Guideline 106  
Remarks: Moderately mobile in soil

Stability in soil :

### **1,2-benzisothiazol-3(2H)-one:**

Distribution among environmental compartments : Koc: 9,33 ml/g, log Koc: 0,97  
Method: OECD Test Guideline 121  
Remarks: Highly mobile in soils

### **Other adverse effects**

#### **Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Harmful to aquatic life.  
Very toxic to aquatic life with long lasting effects.

## SECTION 13. DISPOSAL CONSIDERATIONS

### **Waste treatment methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.

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Do not contaminate ponds, waterways or ditches with chemical or used container.

Send to a licensed waste management company.

Contaminated packaging,  
and contaminated material

: It is prohibited to reuse, bury, burn, or sell containers. Rinsable containers: Triple rinse containers of less than 20 liters and pressure rinse containers of 20 liters or more. Triple rinsing: Add water up to ¼ of the container's capacity, close and shake for 30 seconds. Pour the rinse water into the mixing tank, considering this volume of water within the recommended volume for mixing preparation. Perform this procedure three times. Pressure rinsing: Activate the pressure rinsing device for 30 seconds, considering the volume of water used as part of the recommended volume for mixing preparation. In both procedures, punctured the container on its base without damaging the label. In all cases, take the empty containers to collection points indicated by the local empty containers program.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### UNRTDG

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bixlozone)
Class	: 9
Packing group	: III
Labels	: 9
Environmentally hazardous	: yes

##### IATA-DGR

UN/ID No.	: UN 3082
Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (Bixlozone)
Class	: 9
Packing group	: III
Labels	: Miscellaneous
Packing instruction (cargo aircraft)	: 964
Packing instruction (passenger aircraft)	: 964
Environmentally hazardous	: yes

##### IMDG-Code

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bixlozone)
Class	: 9
Packing group	: III

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Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes

## Transport in bulk according to IMO instruments

Not applicable for product as supplied.

## Domestic regulation

### NCh382

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bixlozone)  
Class : 9  
Packing group : III  
Labels : 9  
Environmentally hazardous : yes

## Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## SECTION 15. REGULATORY INFORMATION

### National Regulations

Chile. Decree 190. Carcinogenic Substances, Hazardous Waste Management. : Not applicable

Decree 1358 - Establishment of rules governing the control measures of precursors and essential chemicals. : acetic acid  
sodium hydroxide

Resolution 408/16 Exempt, Approving List of Health Hazardous Substances : Included in list of Article 3, item a),  
Classification according to NCh382

### Other regulations

Decree 43/2015, Approving Regulation on Storage of Hazardous Substances  
NCh 2245:2021 Safety data sheet for chemical products - Content and order of sections  
NCh 2190:2019 Land transport of dangerous goods - Hazard identification marks  
NCh 382:2021 Dangerous Goods – Classification  
Decree 57 of 2019, Regulation on Classification, Labeling, and Notification of Hazardous Chemicals and Mixtures  
D.S. 148/03 Sanitary Regulation on hazardous wastes handling  
D.S. 298/94 Regulation on transport of hazardous cargo on streets and roads  
D.S. 594/99 Regulation on sanitary and environmental basic conditions at work places  
Exempt Resolution 15 of 2023 approving the List of Hazardous Substances Subject to Import Process

## The ingredients of this product are reported in the following inventories:

TCSI : Not in compliance with the inventory

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TSCA	:	Product contains substance(s) not listed on TSCA inventory.
AIIC	:	Not in compliance with the inventory
DSL	:	This product contains the following components that are not on the Canadian DSL nor NDSL.  bixlozone (ISO)
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory
TECI	:	Not in compliance with the inventory

The receiver should verify the possible existence of legal regulations applicable to chemical.

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### SECTION 16. OTHER INFORMATION

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#### Full text of H-Statements

##### Abbreviations and acronyms

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Serious eye damage/eye irritation	:	Serious eye damage/eye irritation
Skin corrosion/irritation	:	Skin corrosion/irritation
Skin Sens.	:	Skin sensitization

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and



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Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

### Disclaimer

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