

# SAFETY DATA SHEET



## REATOR® 360 CS

Version	Revision Date:	SDS Number:	Date of last issue: -
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### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : REATOR® 360 CS

#### Manufacturer or supplier's details

Company : FMC QUÍMICA DO BRASIL LTDA.

Address : AVENIDA DR. JOSÉ BONIFÁCIO  
COUTINHO NOGUEIRA 150 - 1º  
ANDAR - JARDIM MADALENA,  
CAMPINAS SP BRASIL  
TELEFONE: (19) 2042-4500

Emergency telephone : Brazil: (34) 3319 3019 or 0800 34 35 450 (24 hours)  
+55-2139581449 (CHEMTREC)

#### Recommended use of the chemical and restrictions on use

Recommended use : Herbicide

Restrictions on use : Use as recommended by the label.

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification in accordance with ABNT NBR 14725 Standard

Acute toxicity (Oral) : Category 5

Acute toxicity (Dermal) : Category 5

Short-term (acute) aquatic hazard : Category 3

Long-term (chronic) aquatic hazard : Category 1

#### GHS label elements in accordance with ABNT NBR 14725 Standard

Hazard pictograms :



Signal Word : WARNING

Hazard Statements : H303 + H313 May be harmful if swallowed or in contact with skin.  
H402 Harmful to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**

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P273 Avoid release to the environment.

**Response:**

P312 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 which do not result in classification**

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**Components**

Chemical name	CAS-No.	Classification	Concentration (% w/w)
clomazone (ISO)	81777-89-1	Acute Tox. (Oral), 4 Acute Tox. (Dermal), 5 Aquatic Acute, 1 Aquatic Chronic, 1	$\geq 25$ -< 30
sodium nitrate	7631-99-4	Ox. Sol., 2 Acute Tox. (Oral), 4 Serious eye damage/eye irritation, 2A Aquatic Acute, 3	$\geq 5$ -< 10
calcium chloride	10043-52-4	Acute Tox. (Oral), 5 Serious eye damage/eye irritation, 2A	$\geq 1$ -< 5

### SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.  
Show this material safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.

In case of skin contact : Wash off with soap and water.  
If symptoms persist, call a physician.  
Wash contaminated clothing before re-use.

In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.

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- Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Do not induce vomiting without medical advice.  
Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : May be harmful if swallowed or in contact with skin.
- Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.  
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.
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Fire may produce irritating, corrosive and/or toxic gases.  
Chlorinated compounds  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon oxides  
Hydrogen chloride  
Hydrogen cyanide  
Sodium oxides
- Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.  
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.
- Special protective equipment for fire-fighters : Firefighters should wear protective clothing and self-contained breathing apparatus.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency measures : Evacuate personnel to safe areas.  
Do not touch or walk through the spilled material.

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| gency procedures                                      |   | If it can be safely done, stop the leak.<br>Use personal protective equipment.  |
| Environmental precautions                             | : | Prevent further leakage or spillage if safe to do so.<br>Prevent product from entering drains.<br>If the product contaminates rivers and lakes or drains inform respective authorities.   |
| Methods and materials for containment and cleaning up | : | Never return spills in original containers for re-use.<br>Collect as much of the spill as possible with a suitable absorbent material.<br>Pick up and transfer to properly labeled containers.<br>Keep in suitable, closed containers for disposal. |

### SECTION 7. HANDLING AND STORAGE

- |   |   |  |
|---|---|--|
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection.  |
| Advice on safe handling                         | : | For personal protection see section 8.<br>Avoid formation of respirable particles.<br>Do not breathe vapors/dust.<br>Dispose of rinse water in accordance with local and national regulations.<br>Smoking, eating and drinking should be prohibited in the application area. |
| Hygiene measures                                | : | Avoid contact with skin, eyes and clothing.<br>Do not inhale aerosol.<br>When using do not eat or drink.<br>When using do not smoke.<br>Wash hands before breaks and at the end of workday.  |
| Conditions for safe storage                     | : | Keep container tightly closed in a dry and well-ventilated place.<br>Containers which are opened must be carefully resealed and kept upright to prevent leakage.<br>Electrical installations / working materials must comply with the technological safety standards.        |
| Further information on storage stability        | : | No decomposition if stored and applied as directed.  |

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

#### Personal protective equipment

- |                        |   |  |
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| Respiratory protection | : | In the case of dust or aerosol formation use respirator with an approved filter. |
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Hand protection	:	Protective gloves
Material	:	
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Protective measures	:	Plan first aid action before beginning work with this product.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Form	:	encapsulated suspension
Color	:	green
Odor	:	characteristic
Odor Threshold	:	No data available
pH	:	8,86 (ca. 20 °C)
Melting point/ range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	> 99,8 °C
Evaporation rate	:	No data available
Flammability (liquids)	:	Will not burn
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available

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Vapor pressure	: No data available
Relative vapor density	: No data available
Relative density	: 1,1592 (20 °C)
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	: 379,8 mPa.s ( 20 °C) 277,3 mPa.s ( 40 °C)
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: Not applicable
Metal corrosion rate	: Not corrosive to metals.

### 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	: Vapors may form explosive mixture with air. No decomposition if stored and applied as directed.
Conditions to avoid	: Avoid extreme temperatures. Heat, flames and sparks.
Incompatible materials	: Avoid strong acids, bases, and oxidizers.

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

May be harmful if swallowed or in contact with skin.

**Product:**

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 423  
Symptoms: hyperexcitability  
Assessment: The component/mixture is minimally toxic after single ingestion.  
Remarks: no mortality

Acute inhalation toxicity : LC50 (Rat, male and female): > 0,154 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Symptoms: kyphosis, chromodacryorrhea  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: no mortality  
Highest attainable concentration.

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:****clomazone (ISO):**

Acute oral toxicity : LD50 (Rat, female): 768 mg/kg  
Method: OECD Test Guideline 425  
  
LD50 (Rat, female): 300 - 2.000 mg/kg  
Method: OECD Test Guideline 423  
Target Organs: Liver  
Assessment: The component/mixture is moderately toxic after single ingestion.

LD50 (Rat, female): 1.564 mg/kg  
Symptoms: ataxia

Acute inhalation toxicity : LC50 (Rat, male and female): > 12,1 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Symptoms: apathy  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: no mortality

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LC50 (Rat): > 7,4 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2.000 mg/kg  
Method: US EPA Test Guideline OPP 81-2  
Assessment: The component/mixture is minimally toxic after single contact with skin.  
Remarks: no mortality

LD50 (Rabbit, male and female): > 4.000 mg/kg  
Method: OECD Test Guideline 402  
Remarks: no mortality

### **sodium nitrate:**

Acute oral toxicity : LD50 (Rat, male and female): 3.430 mg/kg  
Method: OECD Test Guideline 401

LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 425

Acute inhalation toxicity : LD50 (Rat): > 0,527 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat, male and female): > 5.000 mg/kg  
Method: OECD Test Guideline 402

### **calcium chloride:**

Acute oral toxicity : LD50 (Rat, male): 2.120 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5.000 mg/kg

### **Skin corrosion/irritation**

Not classified based on available information.

### **Product:**

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

### **Components:**

#### **clomazone (ISO):**

Species : Rabbit  
Assessment : Not classified as irritant  
Method : OECD Test Guideline 404  
Result : slight or no skin irritation.



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### calcium chloride:

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

### Serious eye damage/eye irritation

Not classified based on available information.

#### Product:

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

#### Components:

### clomazone (ISO):

Species	: Rabbit
Result	: Slight or no eye irritation
Assessment	: Not classified as irritant
Method	: OECD Test Guideline 405
GLP	: yes

### sodium nitrate:

Species	: Rabbit
Result	: Eye irritation
Assessment	: Irritating to eyes.
Method	: OECD Test Guideline 405

### calcium chloride:

Species	: Rabbit
Result	: Irritation to eyes, reversing within 21 days
Method	: OECD Test Guideline 405

### Respiratory or skin sensitization

#### Skin sensitization

Not classified based on available information.

#### Respiratory sensitization

Not classified based on available information.

#### Product:

Test Type	: Buehler Test
Routes of exposure	: Skin contact
Species	: Guinea pig
Assessment	: Not a skin sensitizer.
Method	: OECD Test Guideline 406

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**Components:****clomazone (ISO):**

Test Type	: Buehler Test
Species	: Guinea pig
Assessment	: Not a skin sensitizer.
Method	: OECD Test Guideline 406
Result	: Not a skin sensitizer.
GLP	: yes
Species	: Guinea pig
Assessment	: Not a skin sensitizer.
Method	: US EPA Test Guideline OPP 81-6
Result	: Not a skin sensitizer.

**sodium nitrate:**

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

**Germ cell mutagenicity**

Not classified based on available information.

**Product:**

Genotoxicity in vitro	: Test Type: Ames test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
Genotoxicity in vivo	: Test Type: Micronucleus test Method: OECD Test Guideline 474 Result: negative
Germ cell mutagenicity - Assessment	: Weight of evidence does not support classification as a germ cell mutagen.

**Components:****clomazone (ISO):**

Genotoxicity in vitro	: Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes  Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Result: negative
Genotoxicity in vivo	: Test Type: Cytogenetic assay Species: Rat

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Method: OECD Test Guideline 473

Result: negative

**sodium nitrate:**

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

Genotoxicity in vivo : Test Type: unscheduled DNA synthesis assay  
Species: Mouse  
Application Route: Oral  
Result: negative

**calcium chloride:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 471  
Result: negative

**Carcinogenicity**

Not classified based on available information.

**Components:****clomazone (ISO):**

Species : Rat, male and female  
Application Route : Oral  
Exposure time : 2 Years  
Result : negative

Species : Mouse  
Method : OECD Test Guideline 453  
Result : negative

**Reproductive toxicity**

Not classified based on available information.

**Product:**

Reproductive toxicity - Assessment : Animal testing showed no reproductive toxicity.

**Components:****clomazone (ISO):**

Effects on fertility : Test Type: Two-generation study  
Species: Rat, male and female  
Application Route: Oral  
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Oral  
Symptoms: Maternal effects.

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Result: negative

Test Type: Embryo-fetal development

Species: Rabbit

Application Route: Oral

Symptoms: Maternal effects.

Result: negative

### **sodium nitrate:**

Effects on fertility : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Oral  
Result: negative  
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Oral  
Result: negative

### **calcium chloride:**

Effects on fetal development : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Oral  
Method: OECD Test Guideline 414  
Remarks: No significant adverse effects were reported

### **STOT-single exposure**

Not classified based on available information.

### **STOT-repeated exposure**

Not classified based on available information.

### **Repeated dose toxicity**

#### **Components:**

#### **clomazone (ISO):**

Species : Rat, male and female  
NOEL : 1000 ppm  
Application Route : Oral  
Exposure time : 90 days  
Symptoms : increased liver weight

Species : Rat  
LOAEL : 400 mg/kg  
Exposure time : 90 d  
Method : OECD Test Guideline 408  
Symptoms : Liver effects

### **Aspiration toxicity**

Not classified based on available information.

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**Components:****clomazone (ISO):**

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

**Further information****Product:**

Remarks : No data available

**Components:****clomazone (ISO):**

Remarks : When fed to animals, clomazone caused decreased activity, tearing eyes, bleeding from the nose and incoordination.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

Toxicity to fish	:	LC50 (Fish): > 100 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Crustaceans): > 100 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 32,7 mg/l Exposure time: 72 h  EbC50 (Pseudokirchneriella subcapitata (green algae)): 20,4 mg/l Exposure time: 72 h  EyC50 (Pseudokirchneriella subcapitata (green algae)): 21,4 mg/l Exposure time: 72 h
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): 4.830,2 mg/kg Exposure time: 14 d
Toxicity to terrestrial organisms	:	LD50 (Birds): > 2.000 mg/kg  LD50 (Apis mellifera (bees)): >313.9 Exposure time: 48 h

**Components:****clomazone (ISO):**

Toxicity to fish : LC50 (Menidia beryllina (Silverside)): 6,3 mg/l

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		Exposure time: 96 h
		LC50 (Oncorhynchus mykiss (rainbow trout)): > 45 mg/l
		Exposure time: 96 h
		LC50 (Lepomis macrochirus (Bluegill sunfish)): 34 mg/l
		Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 40,8 mg/l
		Exposure time: 48 h
		EC50 (Daphnia): 5,2 mg/l
		Exposure time: 48 h
		EC50 (Daphnia magna (Water flea)): 12,7 mg/l
		Exposure time: 48 h
		Test Type: static test
		EC50 (Mysidopsis bahia (opossum shrimp)): 9,8 mg/l
		Exposure time: 48 h
		LC50 (Americamysis bahia (mysid shrimp)): 0,57 mg/l
		Exposure time: 96 h
		Test Type: flow-through test
Toxicity to algae/aquatic plants	:	EbC50 (Selenastrum capricornutum (green algae)): 2 mg/l
		Exposure time: 72 h
		ErC50 (Selenastrum capricornutum (green algae)): 4,1 mg/l
		Exposure time: 72 h
		ErC50 (Navicula pelliculosa (Freshwater diatom)): 0,136 mg/l
		Exposure time: 120 h
		EC50 (Lemna gibba (duckweed)): 13,9 mg/l
		Exposure time: 7 d
		NOEC (Navicula pelliculosa (Freshwater diatom)): 0,05 mg/l
		End point: Growth rate
		Exposure time: 120 h
		NOEC (algae): 0,05 mg/l
		Exposure time: 96 h
		EC50 (Lemna gibba (duckweed)): 13,9 mg/l
		Exposure time: 7 d
		EC50 (algae): 0,136 mg/l
		Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): 2,3 mg/l
		Exposure time: 21 d

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	Test Type: flow-through test
	NOEC (Oncorhynchus mykiss (rainbow trout)): 2,29 mg/l Exposure time: 57 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 2,2 mg/l Exposure time: 21 d
	NOEC (Americamysis bahia (mysid shrimp)): 0,032 mg/l Exposure time: 28 d Test Type: flow-through test
	NOEC (Daphnia magna (Water flea)): 1,25 mg/l Exposure time: 21 d Test Type: static test
M-Factor (Chronic aquatic toxicity)	: 1
Toxicity to soil dwelling organisms	: LC50 (Eisenia fetida (earthworms)): 391,2 mg/kg Exposure time: 14 d
Toxicity to terrestrial organisms	: LD50 (Anas platyrhynchos (Mallard duck)): > 2.510 mg/kg
	LC50 (Anas platyrhynchos (Mallard duck)): > 5620 ppm Remarks: Dietary
	LD50 (Coturnix japonica (Japanese quail)): > 2000
	NOEC (Colinus virginianus): 94 mg/kg End point: Reproduction Test
	LC50 (Apis mellifera (bees)): > 85.29
	LC50 (Apis mellifera (bees)): > 100 Remarks: Contact
<b>sodium nitrate:</b>	
Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 8.600 mg/l Exposure time: 24 h Method: OECD Test Guideline 202
Toxicity to fish (Chronic toxicity)	: NOEC (Pimephales promelas (fathead minnow)): 157 mg/l Exposure time: 32 d
Toxicity to microorganisms	: EC50: > 1.000 mg/l Exposure time: 3 h

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Method: OECD Test Guideline 209

### calcium chloride:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4.630 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 2.400 mg/l  
aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic : EC50 (Chlorella vulgaris (Fresh water algae)): 2.900 mg/l  
plants Exposure time: 72 h

EC10 (Chlorella vulgaris (Fresh water algae)): 1.000 mg/l  
Exposure time: 72 h

Toxicity to daphnia and other : EC10: 320 mg/l  
aquatic invertebrates (Chronic toxicity) Exposure time: 21 d

### Persistence and degradability

#### Components:

#### clomazone (ISO):

Biodegradability : Result: Not readily biodegradable.  
Remarks: Substance/product is moderately persistent in the environment.  
Primary degradation half-lives vary with circumstances, from a few weeks to a few months in aerobic soil and water.

#### sodium nitrate:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

### Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: No data available

Remarks: No data available

#### Components:

#### clomazone (ISO):

Bioaccumulation : Bioconcentration factor (BCF): 27 - 40  
Remarks: Low potential for bioaccumulation

Partition coefficient: n-octanol/water : log Pow: 2,365 (20 °C)  
Method: OECD Test Guideline 107

log Pow: 2,61 - 2,69 (20 - 21 °C)



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pH: 4 - 10  
Method: Regulation (EC) No. 440/2008, Annex, A.8

### Mobility in soil

#### Product:

Mobility : Remarks: Groundwater contamination is possible.

Distribution among environmental compartments : Remarks: Highly mobile in soils

#### Components:

##### **clomazone (ISO):**

Distribution among environmental compartments : Koc: 300 ml/g, log Koc: 2,47  
Remarks: Moderately mobile in soils

Stability in soil :

### 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.

#### Components:

##### **clomazone (ISO):**

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

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : It is prohibited to reuse, bury, burn or sell packaging.

Washable packaging: Triple wash packs of less than 20 liters and pressure wash packs of 20 liters or more. Triple Wash (Manual Wash): Completely empty the contents of the package into the sprayer tank, keeping it in an upright position for 30 seconds; Add clean water to the package up to ¼ of its volume; Cover the package well and shake it for 30 seconds;

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Pour the wash water into the spray tank; Do this operation three times; Make the plastic or metal packaging unusable by perforating the bottom.

Pressure wash: Fit the empty package in the appropriate place of the funnel installed on the sprayer; Activate the mechanism to release the water jet; Direct the water jet to all the inside walls of the package, for 30 seconds; Wash water must be transferred to the sprayer tank; Make the plastic or metal packaging unusable by perforating the bottom. In both procedures, puncture the container at its base without damaging the label. Within a period of up to one year from the date of purchase, the user must return the empty packaging, with lid, to the establishment where the product was purchased or to the place indicated on the invoice, issued at the time of purchase. Activate the mechanism to release the water jet. Direct the water jet to all the inside walls of the package, for 30 seconds. Wash water must be transferred to the sprayer tank. Make the plastic or metal packaging unusable by perforating the bottom.

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clomazone)
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. (Clomazone)
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. (Clomazone)
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 Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### Domestic regulation

#### ANTT

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clomazone)  
Class : 9  
Packing group : III  
Labels : 9  
Hazard Identification Number : 90

### 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

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

Law No. 14,785 of December 27, 2023. Decree 4,074 of January 4, 2002 and its regulatory standards. ANTT Resolution No. 5,998/22 of November 3, 2022. This MSDS was prepared in accordance with the criteria of ABNT NBR 14725. The user is recommended to pay attention to local regulations.

National List of Carcinogenic Agents for Humans - (LINACH)

Group 2A: Probably carcinogenic to humans  
sodium nitrate 7631-99-4

Brazil. List of chemicals controlled by the Federal Police : calcium chloride

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

TCSI : On the inventory, or in compliance with the inventory  
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.  
CLOMAZONE TECHNICAL  
ENCS : Not in compliance with the inventory

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ISHL	: Not in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: Not in compliance with the inventory

### SECTION 16. OTHER INFORMATION

Revision Date	: 20.02.2025
Date format	: dd.mm.yyyy

#### Full text of other abbreviations

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 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

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