SAFETY DATA SHEET

PICUS®

Version	Revision Date:	SDS Number:	Date of last issue: -
4.0	18.08.2025	50000343	Date of first issue: 02.06.2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : PICUS®

Other means of identification : IMIDACLOPRID 600 g/L FS

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: 0800 34 35 450 (24 hours)
+55-2139581449 (CHEMTREC)

Medical Emergency Number : 0800 7010 450

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

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 4

Acute toxicity (Inhalation) : Category 4

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 : H302 + H332 Harmful if swallowed or if inhaled.
H313 May be harmful in contact with skin.
H402 Harmful to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements :

Prevention:

P261 Avoid breathing mist or vapors.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P302 + P312 IF ON SKIN: Call a POISON CENTER/ doctor if you feel unwell.
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 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)
imidacloprid (ISO)	138261-41-3	Acute Tox. (Oral), 4 Acute Tox. (Inhalation), 5 Aquatic Acute, 2 Aquatic Chronic, 1	>= 30 -< 50
1,2-benzisothiazol-3(2H)-one	2634-33-5	Acute Tox. (Oral), 4 Serious eye damage/eye irritation, 1 Skin Sens., 1 Aquatic Acute, 1 Aquatic Chronic, 2	>= 0,025 -< 0,1

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. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	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	:	Harmful if swallowed or if inhaled. May be harmful in contact with skin. Exposure may result in loss of coordination and tremors.
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, CO2, 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 Hydrogen chloride Nitrogen oxides (NOx) Carbon oxides Hydrogen cyanide Ammonia
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 cir-

cumstances 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 procedures : Use personal protective equipment.
Evacuate personnel to safe areas.
Do not touch or walk through the spilled material.
If it can be safely done, stop the leak.
Keep people away from and upwind of spill/leak.
Ensure adequate ventilation.
Never return spills in original containers for re-use.
Mark the contaminated area with signs and prevent access to unauthorized personnel.
Only qualified personnel equipped with suitable protective equipment may intervene.

Accidental Release Measures : Never return spills in original containers for re-use.
Mark the contaminated area with signs and prevent access to unauthorized personnel.
Only qualified personnel equipped with suitable protective equipment may intervene.

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 materials 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.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapors/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.

Hygiene measures	:	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	:	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 conditions	:	The product is stable under normal conditions of warehouse storage. Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. A warning sign reading “POISON” is recommended. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available. Protect from extreme heat or cold. Storage temperature between -10 and 40°C.
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

Respiratory protection	:	In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
Hand protection		
Material	:	Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.
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. Always have on hand a first-aid kit, together with proper in-

structions.
Wear suitable protective equipment.
When using do not eat, drink or smoke.
In the context of professional plant protection use as recommended, the end user must refer to the label and the instructions for use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Color	:	red
Odor	:	slight, characteristic
Odor Threshold	:	No data available
pH	:	7,66 (20 °C) Concentration: 10 g/l
Melting point/freezing point	:	< 0 °C
Boiling point/boiling range	:	ca. 112 °C
Flash point	:	> 100 °C No flash up to boiling point.
Evaporation rate	:	No data available
Self-ignition	:	> 400 °C
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	Not available for this mixture.
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	1,250 g/l (ca. 20 °C)
Solubility(ies) Water solubility	:	Miscible

Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	Not available for this mixture.
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	1.720 mPa.s (20 °C) 946 mPa.s (40 °C)
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	Non-oxidizing
Surface tension	:	35 mN/m, 40 °C, OECD Test Guideline 115
Molecular weight	:	Not applicable
Metal corrosion rate	:	Not corrosive to metals.
Particle size	:	Not applicable

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. Heat, flames and sparks. Heating of the product will produce harmful and irritant vapours.
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	:	Stable under recommended storage conditions. No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact

Acute toxicity

Harmful if swallowed or if inhaled.
May be harmful in contact with skin.

Product:

Acute oral toxicity : LD50 (Rat): 1.113 mg/kg
Method: OECD Test Guideline 425
Symptoms: Tremors, Lethargy, Breathing difficulties, ataxia
GLP: yes
Remarks: mortality

Acute inhalation toxicity : LC50 (Rat, male): 3,55 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Symptoms: ataxia, Tremors, Breathing difficulties
GLP: yes

LC50 (Rat, female): > 3,73 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Symptoms: ataxia, Tremors, Breathing difficulties
GLP: yes

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

Components:

imidacloprid (ISO):

Acute oral toxicity : LD50 (Rat, male and female): > 1.000 mg/kg
Symptoms: Tremors, piloerection, Breathing difficulties
Remarks: no mortality

LD50 (Rat, female): 300 - 2.000 mg/kg
Method: OECD Test Guideline 423
Symptoms: Fatality, Convulsions, piloerection
GLP: yes
Assessment: The component/mixture is moderately toxic after single ingestion.

LD50 (Rat, female): 300 - 2.000 mg/kg

Method: OECD Test Guideline 420
Symptoms: Fatality, Tremors, ataxia
GLP: yes
Assessment: The component/mixture is moderately toxic after single ingestion.

LD50 (Rat, female): ca. 2.567 mg/kg
Method: OECD Test Guideline 425
Symptoms: Fatality, Breathing difficulties
GLP: yes

Acute inhalation toxicity : LC50 (Rat, male and female): > 5,31 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: no mortality

LC50 (Rat, male and female): 5,17 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403
Symptoms: hypoactivity
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: no mortality

LC50 (Rat, male and female): > 4,9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Symptoms: Breathing difficulties, ataxia, Convulsions, Tremors
Assessment: The component/mixture is minimally toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rat, male and female): > 5.000 mg/kg
Method: OECD Test Guideline 402
Symptoms: Irritation
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: no mortality

LD50 (Rabbit): > 2.000 mg/kg

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

Skin corrosion/irritation

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

Product:

Species	:	Rabbit
Assessment	:	Not classified as irritant
Method	:	OECD Test Guideline 404
GLP	:	yes
Remarks	:	Minimal effects that do not meet the threshold for classification.

Components:

imidacloprid (ISO):

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

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

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

Serious eye damage/eye irritation

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

Product:

Species	:	Rabbit
Assessment	:	Not classified as irritant
Method	:	OECD Test Guideline 405
GLP	:	yes
Remarks	:	Minimal effects that do not meet the threshold for classification.

Components:

imidacloprid (ISO):

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

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

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

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

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)
Method	:	OECD Test Guideline 429
Result	:	Did not cause sensitization on laboratory animals.
GLP	:	yes

Components:

imidacloprid (ISO):

Test Type	:	Maximization Test
Species	:	Guinea pig
Result	:	Does not cause skin sensitization.

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	:	Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Method: OECD Test Guideline 474 Result: negative

Components:

imidacloprid (ISO):

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: Cytogenetic assay
Species: Chinese hamster
Result: negative
GLP: yes

Test Type: Micronucleus test
Species: Mouse
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Test Type: dominant lethal test
Species: Mouse
Result: negative

Test Type: chromosome aberration assay
Species: Mouse
Result: negative

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 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.

Carcinogenicity

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

Reproductive toxicity

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

Components:

imidacloprid (ISO):

Effects on fertility	:	Method: OECD Test Guideline 416 Result: Animal testing did not show any effects on fertility. Method: OECD Test Guideline 416 Result: No effects on fertility and early embryonic development were detected.
Effects on fetal development	:	Species: Rabbit Application Route: Oral Dose: 0, 8, 24, 72 mg/kg bw/day General Toxicity Maternal: NOAEL: 8 mg/kg bw/day Method: OECD Test Guideline 414 Result: No teratogenic effects. GLP: yes Species: Rat Dose: 0, 10, 30, 100 mg/kg bw/day General Toxicity Maternal: NOEL: 10 mg/kg bw/day Embryo-fetal toxicity.: NOEL: 30 mg/kg bw/day Method: OECD Test Guideline 414 GLP: yes Test Type: Multi-generation study Species: Rat Application Route: Oral Dose: 8, 20, 56 mg/kg bw/day General Toxicity Maternal: NOEL: 20 mg/kg body weight Developmental Toxicity: NOEL: 20 mg/kg body weight

Result: No teratogenic effects.
GLP: yes

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

STOT-single exposure

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

STOT-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:

imidacloprid (ISO):

Species	:	Dog
NOEL	:	1200 ppm
Application Route	:	Oral - feed
Exposure time	:	90 d
Method	:	OECD Test Guideline 409
GLP	:	yes

Species	:	Dog
LOAEL	:	49 mg/kg
Application Route	:	Oral - feed
Exposure time	:	28 d
Dose	:	0, 7.3, 31, 49 mg/kg bw/day
Method	:	OECD Test Guideline 409
Symptoms	:	Tremors, ataxia, Vomiting

Species	:	Dog, male and female
NOEL	:	72 mg/kg bw/day
Application Route	:	Oral - feed
Exposure time	:	52 w
Dose	:	0, 6.1, 15, 41, 72 mg/kg bw/day
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

Aspiration toxicity

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

Components:

imidacloprid (ISO):

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

Further information

Product:

Remarks	:	No data available

Components:

imidacloprid (ISO):

Remarks	:	No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 LC50 (Salmo gairdneri): 211 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l End point: Growth inhibition Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): 15 mg/kg Exposure time: 14 d GLP: yes 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 (Coturnix japonica (Japanese quail)): 31 mg/kg LD50 (Colinus virginianus (Bobwhite quail)): 818 mg/kg Method: EPA OPP 71-1 LD50 (Apis mellifera (bees)): 0,06 µg/bee Exposure time: 48 h End point: Acute oral toxicity Method: OECD Test Guideline 213 LD50 (Apis mellifera (bees)): 0,22 µg/bee Exposure time: 48 h End point: Acute contact toxicity Method: OECD Test Guideline 214 LD50 (Apis mellifera (bees)): 0,007 µg/bee Exposure time: 48 h End point: Acute oral toxicity Method: OECD Test Guideline 213 LD50 (Apis mellifera (bees)): 0,038 µg/bee Exposure time: 48 h End point: Acute contact toxicity Method: OECD Test Guideline 214

Components:

imidacloprid (ISO):

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): > 105 mg/l Exposure time: 96 h Test Type: static test Method: EPA OPP 72-1 GLP: yes LC50 (Salmo gairdneri): 158 - 281 mg/l Exposure time: 96 h

Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

LC50 (Oncorhynchus mykiss (rainbow trout)): > 83 mg/l
Exposure time: 96 h
Test Type: static test
Method: EPA OPP 72-1
GLP: yes

LC50 (Cyprinodon variegatus (sheepshead minnow)): 161 mg/l
Exposure time: 96 h
Test Type: static test
GLP: yes

LC50 (Leuciscus idus (Golden orfe)): 178 - 316 mg/l
Exposure time: 96 h
Test Type: static test
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 85 mg/l
Exposure time: 48 h
Method: US EPA Test Guideline OPP 72-2
GLP: yes

EC50 (Americamysis bahia (mysid shrimp)): 0,0341 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: US EPA Test Guideline OPP 72-3
GLP: yes

LC50 (Hyalella azteca (Amphipod)): 0,526 mg/l
Exposure time: 96 h
Method: US EPA Test Guideline OPP 72-2
GLP: yes

NOEC (Crassostrea virginica (atlantic oyster)): 23,3 mg/l
Exposure time: 96 h
Method: US EPA Test Guideline OPP 72-3
GLP: yes

EC50 (Hyalella azteca (Amphipod)): 0,055 mg/l
End point: Immobilization
Exposure time: 48 h
Method: EPA OPP 72-2

Toxicity to algae/aquatic plants : EbC50 (Scenedesmus subspicatus): > 10 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

NOEC (Scenedesmus capricornutum (fresh water algae)): > 119 mg/l
Exposure time: 5 d

Method: US EPA Test Guideline OPP 122-2 & 123-2

Toxicity to fish (Chronic toxicity) : NOEC (Salmo gairdneri): 28,5 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 204
GLP: yes

NOEC (Oncorhynchus mykiss (rainbow trout)): 9,8 mg/l
End point: Growth
Exposure time: 98 d
Test Type: Early Life-Stage
Method: US EPA Test Guideline OPP 72-4
GLP: yes

NOEC (Oncorhynchus mykiss (rainbow trout)): 9,02 mg/l
End point: Hatching success
Test Type: flow-through test
Method: OECD Test Guideline 210
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 1,8 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: US EPA Test Guideline OPP 72-4
GLP: yes

EC10 (Chironomus riparius (harlequin fly)): 0,00209 mg/l
Exposure time: 28 d

NOEC (Chironomus tentans): 0,67 µg/l
End point: Growth
Exposure time: 10 d
Test Type: Static renewal test
GLP: yes

NOEC (Gammarus pulex): 0,064 mg/l
End point: Swimming behavior
Exposure time: 28 d
Test Type: static test
Method: OECD 219
GLP: yes

M-Factor (Chronic aquatic toxicity) : 100

Toxicity to microorganisms : IC50 (activated sludge): > 10000

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): 10.7 mg/kg dry weight (d.w.)
Exposure time: 14 d

Toxicity to terrestrial organisms : LD50 (Coturnix japonica (Japanese quail)): 31 mg/kg

LD50 (Coturnix japonica (Japanese quail)): 2.225 ppm

Exposure time: 5 d

LD50 (Apis mellifera (bees)): 0,0037 µg/bee
Exposure time: 48 h
End point: Acute oral toxicity

LD50 (Apis mellifera (bees)): 0,0081 µg/bee
Exposure time: 48 h

Ecotoxicology Assessment

Other organisms relevant to the environment : Harmful to bees.

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 plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 0,070 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

Product:

Biodegradability : Remarks: Product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water treatment plants.

Components:

imidacloprid (ISO):

Biodegradability : Result: Not readily biodegradable.

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

Biodegradability : Result: rapidly biodegradable
Method: OECD Test Guideline 301C

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data is available on the product itself.

Remarks: No data available

Components:

imidacloprid (ISO):

Bioaccumulation : Remarks: Low potential for bioaccumulation

Partition coefficient: n-octanol/water : log Pow: 0,33 (20 °C)
Method: OECD Test Guideline 107

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

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 6,62
Exposure time: 56 d
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

Product:

Distribution among environmental compartments : Remarks: No data is available on the product itself.

Components:

imidacloprid (ISO):

Distribution among environmental compartments : Koc: 109 - 411
Remarks: Mobile in soils

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

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; 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. (Imidacloprid)
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. (Imidacloprid)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964

IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Imidacloprid)
Class	:	9
Packing group	:	III
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. (Imidacloprid)
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) : Not applicable

Brazil. List of chemicals controlled by the Federal Police : urea

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

TCSI : Not 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.

imidacloprid (ISO)
Pigment Red 48 : 2
Sulfurous acid, monosodium salt, reaction products with cresol-formaldehyde-nonylphenol polymer

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

SECTION 16. OTHER INFORMATION

Revision Date : 18.08.2025

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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