# SAFETY DATA SHEET

# GULLIVER® herbicide

| Version | Revision Date: | SDS Number: | Date of last issue: - |
|---|---|---|---|
| 4.0 | 10.07.2025 | 50000058 | Date of first issue: 26.09.2018 |

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : GULLIVER® herbicide

Other means of identification : AZIMSULFURON 50 WG

**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 : 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 (Dermal) : Category 5

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

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

Hazard pictograms :

Signal Word : WARNING

Hazard Statements : H313 May be harmful in contact with skin.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements :

**Prevention:**

P273 Avoid release to the environment.

**Response:**

P302 + P312 IF ON SKIN: 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) |
|---|---|---|---|
| azimsulfuron (ISO) | 120162-55-2 | Acute Tox. (Dermal), 5<br>Aquatic Acute, 1<br>Aquatic Chronic, 1 | >= 30 -< 50 |
| Talc (Mg3H2(SiO3)4) | 14807-96-6 | Not Classified | >= 30 -< 50 |
| Sucrose | 57-50-1 | Not Classified | >= 5 -< 10 |

## 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 | : | May be harmful in contact with skin. |
| 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.<br>Nitrogen oxides (NOx)<br>Sulfur oxides<br>Carbon oxides<br>Hydrogen cyanide |
| Specific extinguishing methods | : | Use a water spray to cool fully closed containers.<br>Remove undamaged containers from fire area if it is safe to do so.<br>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Collect contaminated fire extinguishing water separately. This must not be discharged into drains.<br>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 | : | If it can be safely done, stop the leak.<br>Do not touch or walk through the spilled material.<br>Use personal protective equipment.<br>Evacuate personnel to safe areas.<br>Avoid dust formation.<br>Avoid breathing dust.<br>Ensure adequate ventilation.<br>Never return spills in original containers for re-use.<br>Mark the contaminated area with signs and prevent access to unauthorized personnel. |

Only qualified personnel equipped with suitable protective equipment may intervene.
For disposal considerations see section 13.

| | | |
|---|---|---|
| Accidental Release Measures | : | Never return spills in original containers for re-use.<br>Mark the contaminated area with signs and prevent access to unauthorized personnel.<br>Only qualified personnel equipped with suitable protective equipment may intervene.<br>For disposal considerations see section 13. |
| Environmental precautions | : | Prevent product from entering drains.<br>Prevent further leakage or spillage if safe to do so.<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. Pick up and transfer the spilled material to a properly labeled container without creating dust. For spills on concrete or other non-porous surfaces, the area can be cleaned using a small quantity of soap and water. Do not allow the cleaning solution to enter drains. Use an inert absorbent material to soak up the cleaning solution and transfer it to the properly labeled container. When the spill occurs on soil, the only effective way to decontaminate the area is to remove the top 5 to 7 centimeters of soil. |

## SECTION 7. HANDLING AND STORAGE

| | | |
|---|---|---|
| Advice on protection against fire and explosion | : | Provide appropriate exhaust ventilation at places where dust is formed. |
| Advice on safe handling | : | Smoking, eating and drinking should be prohibited in the application area.<br>Dispose of rinse water in accordance with local and national regulations.<br>Avoid formation of respirable particles.<br>For personal protection see section 8. |
| Hygiene measures | : | Avoid contact with skin, eyes and clothing.<br>Do not breathe dust.<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 stor- | : | No decomposition if stored and applied as directed. |

age stability

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ingredients with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| Talc (Mg3H2(SiO3)4) | 14807-96-6 | LT | 8,5 mppcd / (% quartz+10) (Silica) | BR OEL |
| | | LT (Respirable dust) | 8 mg/m3 / (% quartz+2) (Silica) | BR OEL |
| | | LT (Total dust) | 24 mg/m3 / (% quartz+3) (Silica) | BR OEL |
| | | TWA | 0,1 fibres per cubic centimeter | ACGIH |
| | | TWA (Respirable particulate matter) | 2 mg/m3 | ACGIH |
| Sucrose | 57-50-1 | TWA | 10 mg/m3 | ACGIH |

**Personal protective equipment**

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

Filter type : Particulates type

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 : Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Protective measures : Always have on hand a first-aid kit, together with proper instructions.
Plan first aid action before beginning work with this product.
Wear suitable protective equipment.
Ensure that eye flushing systems and safety showers are located close to the working place.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Physical state | : | solid |
| Form | : | granules |
| Color | : | off-white |
| Odor | : | Faint odour |
| pH | : | 5,7<br>Concentration: 1 % |
| Flash point | : | Not applicable |
| Evaporation rate | : | Not applicable |
| Self-ignition | : | not auto-flammable |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Relative vapor density | : | Not applicable |
| Relative density | : | 0,5973 |
| Density | : | No data available |
| Bulk density | : | No data available |
| Solubility(ies) | | |
| Water solubility | : | dispersible |
| Autoignition temperature | : | No data available |
| Viscosity | | |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | Not applicable |
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | The product is not oxidizing. |
| Surface tension | : | 42,6 mN/m, 20 °C |
| Molecular weight | : | Not applicable |

| | | |
|---|---|---|
| Metal corrosion rate | : | Not corrosive to metals. |
| Particle size | : | No data available |

## 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.<br>Dust may form explosive mixture in air. |
| Conditions to avoid | : | Avoid extreme temperatures.<br>Avoid dust formation.<br>Heat, flames and sparks. |
| Incompatible materials | : | Avoid strong acids, bases, and oxidizers. |
| Hazardous decomposition products | : | No decomposition if stored and applied as directed. |

## SECTION 11. TOXICOLOGICAL INFORMATION

| | | |
|---|---|---|
| Information on likely routes of exposure | : | Inhalation<br>Skin contact |

**Acute toxicity**

May be harmful in contact with skin.

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): > 5.000 mg/kg<br>Method: OECD Test Guideline 401<br>Assessment: The substance or mixture has no acute oral toxicity |
| Acute dermal toxicity | : | LD50 (Rat): > 2.000 mg/kg<br>Method: OECD Test Guideline 402<br>Assessment: The component/mixture is minimally toxic after single contact with skin.<br>Remarks: no mortality |

**Components:**

**azimsulfuron (ISO):**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): > 5.000 mg/kg<br>Method: OECD Test Guideline 401 |

GLP: yes
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): > 5,94 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: no mortality

Acute dermal toxicity : LD50 (Rat, male and female): > 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

**Talc (Mg3H2(SiO3)4):**

Acute oral toxicity : LD0 (Rat, male): > 5.000 mg/kg
Method: OECD Test Guideline 423
Remarks: no mortality

Acute inhalation toxicity : LC0 (Rat, male and female): > 2,1 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Remarks: no mortality

Acute dermal toxicity : LD0 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402
Remarks: no mortality

**Sucrose:**

Acute oral toxicity : LD50 (Rat): 29.700 mg/kg

**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
Result : slight irritation

**Components:**

**azimsulfuron (ISO):**

Species : Rabbit
Method : OECD Test Guideline 404

| | | |
|---|---|---|
| Result | : | No skin irritation |
| GLP | : | yes |
| Remarks | : | Information source: Internal study report |

**Talc (Mg3H2(SiO3)4):**

| | | |
|---|---|---|
| Species | : | reconstructed human epidermis (RhE) |
| Result | : | No skin irritation |

**Serious eye damage/eye irritation**

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

**Product:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | slight irritation |
| Assessment | : | Not classified as irritant |
| Method | : | OECD Test Guideline 405 |

**Components:**

**azimsulfuron (ISO):**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | No eye irritation |
| Method | : | OECD Test Guideline 405 |
| GLP | : | yes |
| Remarks | : | Information source: Internal study report |

**Talc (Mg3H2(SiO3)4):**

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

**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 | : | Maximization Test |
| Species | : | Guinea pig |
| Result | : | Animal test did not cause sensitization by skin contact. |
| GLP | : | yes |

**Components:**

**azimsulfuron (ISO):**

| | | |
|---|---|---|
| Test Type | : | Maximization Test |
| Species | : | Guinea pig |
| Method | : | OECD Test Guideline 406 |
| Result | : | Animal test did not cause sensitization by skin contact. |

GLP : yes
Remarks : Information source: Internal study report

**Talc (Mg3H2(SiO3)4):**

Test Type : Maximization Test
Routes of exposure : Dermal
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitization.

Routes of exposure : Inhalation
Species : Rat
Result : Does not cause respiratory sensitization.

**Germ cell mutagenicity**

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

**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
Result: negative

**Components:**

**azimsulfuron (ISO):**

Genotoxicity in vitro : Test Type: reverse mutation assay
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: reverse mutation assay
Test system: Escherichia coli
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: unscheduled DNA synthesis assay
Test system: rat hepatocytes
Method: OECD Test Guideline 482
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: mice (male and female)
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

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

**Talc (Mg3H2(SiO3)4):**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: In vitro mammalian cell gene mutation test<br>Result: negative<br><br>Test Type: gene mutation test<br>Method: QSAR<br>Result: negative<br><br>Test Type: reverse mutation assay<br>Result: negative |
| Genotoxicity in vivo | : | Test Type: dominant lethal test<br>Species: Rat (male)<br>Application Route: Oral<br>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.

**Components:**

**azimsulfuron (ISO):**

| | | |
|---|---|---|
| Species | : | Rat, male and female |
| Application Route | : | Ingestion |
| Exposure time | : | 24 month(s) |
| Method | : | OECD Test Guideline 453 |
| Result | : | negative |
| Carcinogenicity - Assessment | : | Did not show carcinogenic effects in animal experiments. |

**Talc (Mg3H2(SiO3)4):**

| | | |
|---|---|---|
| Species | : | Rat, male and female |
| Application Route | : | Oral |
| Exposure time | : | 101 days |
| Dose | : | 100 mg/kg bw/day |
| NOAEL | : | 100 mg/kg bw/day |
| Method | : | OECD Test Guideline 453 |
| Result | : | negative |
| Target Organs | : | Stomach |
| Tumor Type | : | Leiomyosarcoma |
| Carcinogenicity - Assessment | : | Weight of evidence does not support classification as a carcinogen |

**Reproductive toxicity**

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

**Components:**

**azimsulfuron (ISO):**

| | | |
|---|---|---|
| Effects on fertility | : | Test Type: Two-generation study<br>Species: Rat, male and female<br>Application Route: Ingestion<br>General Toxicity Parent: NOEL: 125 ppm<br>Fertility: NOEL: 8.000 ppm<br>Method: OECD Test Guideline 416<br>Result: negative |
| Effects on fetal development | : | Test Type: Embryo-fetal development<br>Species: Rat<br>Application Route: Ingestion<br>General Toxicity Maternal: NOEL: 200 mg/kg bw/day<br>Teratogenicity: NOEL: 1.000 mg/kg bw/day<br>Symptoms: Maternal effects.<br>Method: EPA OPP 83-3<br>Result: negative |
| Reproductive toxicity - Assessment | : | Animal testing did not show any effects on fertility.<br>Did not show teratogenic effects in animal experiments. |

**Talc (Mg3H2(SiO3)4):**

| | | |
|---|---|---|
| Effects on fertility | : | Species: Rabbit, female<br>Application Route: Oral<br>Dose: 9, 42, 195, 900 mg/kg bw/day<br>General Toxicity Parent: NOAEL: > 900 mg/kg body weight<br>General Toxicity F1: NOAEL: > 900 mg/kg body weight<br>Result: negative |
| Effects on fetal development | : | Test Type: reproductive and developmental toxicity study<br>Species: Rat<br>Application Route: Oral<br>Dose: 0,16,74,350,1600mg/kg bw/day<br>Duration of Single Treatment: 20 d<br>General Toxicity Maternal: NOAEL: >= 1.600 mg/kg bw/day<br>Embryo-fetal toxicity.: NOAEL: 1.600 mg/kg bw/day<br>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.

**Components:**

**azimsulfuron (ISO):**

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

**Talc (Mg3H2(SiO3)4):**

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

**STOT-repeated exposure**

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

**Components:**

**azimsulfuron (ISO):**

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

**Repeated dose toxicity**

**Components:**

**azimsulfuron (ISO):**

| | | |
|---|---|---|
| Species | : | Rat, male |
| NOAEL | : | 75,3 mg/kg |
| Application Route | : | Oral |
| Exposure time | : | 90 d |
| Method | : | OECD Test Guideline 408 |
| GLP | : | yes |

| | | |
|---|---|---|
| Species | : | Rat, female |
| NOAEL | : | 82,4 mg/kg |
| Application Route | : | Oral |
| Exposure time | : | 90 d |
| Method | : | OECD Test Guideline 408 |
| GLP | : | yes |

**Talc (Mg3H2(SiO3)4):**

| | | |
|---|---|---|
| Species | : | Rat, male and female |
| NOAEL | : | 100 mg/kg |
| Application Route | : | Oral - feed |
| Exposure time | : | 101 d |
| Dose | : | 100 mg/kg bw/day |

| | | |
|---|---|---|
| Species | : | Rat, male and female |
| NOAEL | : | 2 mg/m3 |
| LOAEL | : | 6 mg/m3 |
| Application Route | : | inhalation (dust/mist/fume) |
| Test atmosphere | : | dust/mist |
| Exposure time | : | 20 d |
| Dose | : | 0, 2, 6, 18 mg/m³ |

**Aspiration toxicity**

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

**Components:**

**azimsulfuron (ISO):**

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

**Further information**

**Product:**

Remarks : No data available

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Product:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 492 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.000 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,075 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EbC50 (Pseudokirchneriella subcapitata (green algae)): 0,015 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: (Data on the product itself)
Information source: Internal study report

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1.000 mg/kg
Exposure time: 14 d

Remarks: No significant adverse effect on Nitrogen mineralization.
No significant adverse effect on Carbon mineralization.

Toxicity to terrestrial organisms : LD50 (Apis mellifera (bees)): > 349,6 µg/bee
End point: Acute oral toxicity

LD50 (Apis mellifera (bees)): > 400 µg/bee
End point: Acute contact toxicity

LD50 (Colinus virginianus (Bobwhite quail)): > 5620 ppm
Method: OECD Test Guideline 205

LD50 (Anas platyrhynchos (Mallard duck)): > 5620 ppm
Method: OECD Test Guideline 205

**Components:**

**azimsulfuron (ISO):**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 154 mg/l
Exposure time: 96 h

Test Type: static test
Method: OECD Test Guideline 203
GLP: yes
Remarks: Information source: Internal study report

LC50 (Lepomis macrochirus (Bluegill sunfish)): > 1.000 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes
Remarks: Information source: Internal study report

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 600 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes
Remarks: Information source: Internal study report

Toxicity to algae/aquatic plants : EbC50 (Pseudokirchneriella subcapitata (green algae)): 0,012 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,099 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

EC50 (Lemna gibba (duckweed)): 0,00062 mg/l
End point: Frond
Exposure time: 7 d
Test Type: Static renewal test
Method: OECD Test Guideline 221

NOEC (Lemna gibba (duckweed)): 0,00019 mg/l
End point: Frond
Exposure time: 7 d
Test Type: Static renewal test
Method: OECD Test Guideline 221

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 23 mg/l
Exposure time: 28 d
Test Type: flow-through test
Method: OECD Test Guideline 204
GLP: yes
Remarks: Information source: Internal study report

NOEC (Oncorhynchus mykiss (rainbow trout)): 6,3 mg/l
Exposure time: 90 d

Method: OECD Test Guideline 210
GLP: yes
Remarks: Information source: Internal study report

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 5,4 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 202
GLP: yes
Remarks: Information source: Internal study report

M-Factor (Chronic aquatic toxicity) : 100

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1.000 mg/kg
Exposure time: 14 d
Method: OECD Test Guideline 207
GLP: yes
Remarks: Information source: Internal study report

NOEC (Eisenia fetida (earthworms)): 12,5 mg/kg
End point: reproduction
Method: OECD Test Guideline 222
GLP: yes

Toxicity to terrestrial organisms : LD50 (Colinus virginianus (Bobwhite quail)): > 2.250 mg/kg
Method: US EPA Test Guideline OPP 71-1
GLP: yes
Remarks: Information source: Internal study report

LC50 (Anas platyrhynchos (Mallard duck)): > 5.620 mg/kg
Exposure time: 8 d
Method: OECD Test Guideline 205
GLP: yes
Remarks: Information source: Internal study report

LD50 (Apis mellifera (bees)): > 0,025 mg/kg
Method: US EPA Test Guideline OPP 141-1
GLP: yes
Remarks: Contact, Information source: Internal study report

LD50 (Apis mellifera (bees)): > 1.000 mg/kg
Method: US EPA Test Guideline OPP 141-1
GLP: yes
Remarks: Dietary, Information source: Internal study report

NOEC (Anas platyrhynchos (Mallard duck)): 172 mg/kg
End point: Reproduction Test
Method: OECD Test Guideline 206
GLP: yes

**Talc (Mg3H2(SiO3)4):**

Toxicity to fish : LC50 (Fish): 89.581,016 mg/l
Exposure time: 96 h
Method: QSAR

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : | LC50 (Daphnia magna (Water flea)): 36.812,359 mg/l<br>Exposure time: 48 h<br>Method: QSAR |
| Toxicity to algae/aquatic plants | : | NOEC (green algae): 918,089 mg/l<br>Exposure time: 30 d<br>Method: QSAR<br><br>EC50 (green algae): 7.202,7 mg/l<br>Exposure time: 96 h<br>Method: QSAR |
| Toxicity to fish (Chronic toxicity) | : | NOEC (Fish): 1.412,648 mg/l<br>Exposure time: 30 d<br>Method: QSAR |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia): 1.459,798 mg/l<br>Exposure time: 30 d<br>Method: QSAR |

**Sucrose:**

| | | |
|---|---|---|
| Toxicity to fish | : | Remarks: No data available |

**Persistence and degradability**

**Components:**

**azimsulfuron (ISO):**

| | | |
|---|---|---|
| Biodegradability | : | Biodegradation: 12 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301E<br>GLP: yes<br>Remarks: Not readily biodegradable. |
| Stability in water | : | Degradation half life: 89 d (25 °C) pH: 5<br><br>Degradation half life: 132 d (25 °C) pH: 9 |
| Photodegradation | : | |

**Sucrose:**

| | | |
|---|---|---|
| Biodegradability | : | Remarks: No data available |

**Bioaccumulative potential**

**Components:**

**azimsulfuron (ISO):**

| | | |
|---|---|---|
| Bioaccumulation | : | Remarks: Bioaccumulation is unlikely. |
| Partition coefficient: n-octanol/water | : | log Pow: -1,36 |

**Talc (Mg3H2(SiO3)4):**

| | | |
|---|---|---|
| Bioaccumulation | : | Bioconcentration factor (BCF): 3,16<br>Method: QSAR |
| Partition coefficient: n-octanol/water | : | log Pow: -9,4 (25 °C)<br>pH: 7<br>Method: QSAR |

**Mobility in soil**

**Components:**

**azimsulfuron (ISO):**

| | | |
|---|---|---|
| Distribution among environmental compartments | : | Koc: 85,34 - 142,56 ml/g<br>Remarks: Moderately mobile in soil |

**Other adverse effects**

**Product:**

| | | |
|---|---|---|
| Additional ecological information | : | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.<br>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.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Send to a licensed waste management company. |
| Contaminated packaging | : | It is prohibited to reuse, bury, burn or sell packaging.<br><br>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.<br><br>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 damag- |

ing 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 3077 |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Azimsulfuron) |
| Class | : | 9 |
| Subsidiary risk | : | ENVIRONM. |
| Packing group | : | III |
| Labels | : | 9 (ENVIRONM.) |
| Environmentally hazardous | : | yes |

**IATA-DGR**

| | | |
|---|---|---|
| UN/ID No. | : | UN 3077 |
| Proper shipping name | : | Environmentally hazardous substance, solid, n.o.s. (Azimsulfuron) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | Miscellaneous |
| Packing instruction (cargo aircraft) | : | 956 |
| Packing instruction (passenger aircraft) | : | 956 |
| Environmentally hazardous | : | yes |

**IMDG-Code**

| | | |
|---|---|---|
| UN number | : | UN 3077 |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Azimsulfuron) |
| 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 3077 |

| | | |
|---|---|---|
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Azimsulfuron) |
| 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.

Group 2B: Possibly carcinogenic to humans
Talc (Mg3H2(SiO3)4) 14807-96-6

Brazil. List of chemicals controlled by the Federal Police : Not applicable

**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.<br><br>azimsulfuron (ISO)<br>Chlorite-group minerals<br>dolomite |
| ENCS | : | Not in compliance with the inventory |
| 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 | : | 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 | : | 10.07.2025 |
| Date format | : | dd.mm.yyyy |

**Full text of other abbreviations**

| | | |
|---|---|---|
| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
| BR OEL | : | Brazil. NR 15 - Unhealthy activities and operations |
| ACGIH / TWA | : | 8-hour, time-weighted average |
| BR OEL / LT | : | Up to 48 hours /week |

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 Recom-

mendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

**Disclaimer**

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. You can contact FMC Corporation to insure that this document is the most current available from FMC Corporation. No warranty of fitness for any particular purpose, warranty of merchantability or any other warranty, expressed or implied, is made concerning the information provided herein. The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. The user is responsible for determining whether the product is fit for a particular purpose and suitable for the user's conditions and methods of use. Since the conditions and methods of use are beyond the control of FMC Corporation, FMC Corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

BR / EN