# SAFETY DATA SHEET

## Amitraz Solid Formulation

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date</th>
<th>SDS Number</th>
<th>Date of last issue</th>
<th>Date of first issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>13.09.2019</td>
<td>1734732-00006</td>
<td>24.04.2019</td>
<td>06.06.2017</td>
</tr>
</tbody>
</table>

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

### Product name
Amitraz Solid Formulation

### Manufacturer or supplier’s details

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Telephone</th>
<th>Emergency telephone</th>
<th>E-mail address</th>
<th>Telefax</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSD</td>
<td>Talcahuano 750, 6th floor, Ciudad Autonoma Buenos Aires, Argentina C1013AAP</td>
<td>908-740-4000</td>
<td>1-908-423-6000</td>
<td><a href="mailto:EHSDATASETWARD@msd.com">EHSDATASETWARD@msd.com</a></td>
<td>908-735-1496</td>
</tr>
</tbody>
</table>

### Recommended use of the chemical and restrictions on use
- **Recommended use**
  - Veterinary product

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

<table>
<thead>
<tr>
<th>Classification Type</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (Oral)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>Category 3</td>
</tr>
<tr>
<td>Serious eye damage</td>
<td>Category 1</td>
</tr>
<tr>
<td>Specific target organ toxicity - repeated exposure</td>
<td>Category 2 (Liver, Central nervous system)</td>
</tr>
<tr>
<td>Short-term (acute) aquatic hazard</td>
<td>Category 1</td>
</tr>
<tr>
<td>Long-term (chronic) aquatic hazard</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

### GHS label elements

<table>
<thead>
<tr>
<th>Hazard pictograms</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signal Word</th>
<th>Hazard Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danger</td>
<td>H302 Harmful if swallowed.</td>
</tr>
<tr>
<td></td>
<td>H316 Causes mild skin irritation.</td>
</tr>
<tr>
<td></td>
<td>H318 Causes serious eye damage.</td>
</tr>
</tbody>
</table>
H373 May cause damage to organs (Liver, Central nervous system) through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:
P260 Do not breathe dust.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.

Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P314 Get medical advice/ attention if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P391 Collect spillage.

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

Additional Labeling:
The following percentage of the mixture consists of ingredient(s) with unknown acute oral toxicity: 10 %
The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 10 %
The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 10 %
The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 10 %

Other hazards which do not result in classification
May form explosive dust-air mixture during processing, handling or other means.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amitraz (ISO)</td>
<td>33089-61-1</td>
<td>50</td>
</tr>
<tr>
<td>Aluminium silicate</td>
<td>12141-46-7</td>
<td>&gt;= 10 - &lt;= 20</td>
</tr>
<tr>
<td>Paraformaldehyde</td>
<td>30525-89-4</td>
<td>2.55</td>
</tr>
<tr>
<td>Sodium bis(2-ethylhexyl)sulfosuccinate</td>
<td>577-11-7</td>
<td>1</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES
General advice : In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air. Get medical attention if symptoms occur.

In case of skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention immediately.

If swallowed : If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Get medical attention. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : Harmful if swallowed. Causes mild skin irritation. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides
Silicon oxides
Metal oxides
Nitrogen oxides (NOx)
Sulfur oxides

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Use personal protective equipment.
Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions:
Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up:
Sweep up or vacuum up spillage and collect in suitable container for disposal.
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures:
Static electricity may accumulate and ignite suspended dust causing an explosion.
Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Local/Total ventilation:
Use only with adequate ventilation.

Advice on safe handling:
Do not get on skin or clothing.
Do not breathe dust.
Do not swallow.
Do not get in eyes.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment.
Keep container tightly closed.
Minimize dust generation and accumulation.
Keep container closed when not in use.
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage:
Keep in properly labeled containers.
Keep tightly closed.
Store in accordance with the particular national regulations.
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Materials to avoid:
Do not store with the following product types:
Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amitraz (ISO)</td>
<td>33089-61-1</td>
<td>TWA</td>
<td>20 µg/m³ (OEB 3)</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wipe limit</td>
<td>200 µg/100 cm²</td>
<td>Internal</td>
</tr>
<tr>
<td>Aluminium silicate</td>
<td>12141-46-7</td>
<td>TWA (Respirable fraction)</td>
<td>1 mg/m³ (Aluminum)</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

Engineering measures:
- Ensure adequate ventilation, especially in confined areas.
- Minimize workplace exposure concentrations.
- Apply measures to prevent dust explosions.
- Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Personal protective equipment

Respiratory protection:
- If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.
  - Filter type: Particulates type

Hand protection:
- Material: Chemical-resistant gloves

Remarks:
- Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often!
  - For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.
  - Wash hands before breaks and at the end of workday.

Eye protection:
- Wear the following personal protective equipment:
  - Chemical resistant goggles must be worn.
  - If splashes are likely to occur, wear: Face-shield

Skin and body protection:
- Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
  - Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures:
- If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
- When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>powder</td>
</tr>
<tr>
<td>Color</td>
<td>white</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>May form explosive dust-air mixture during processing, handling or other means.</td>
</tr>
<tr>
<td>Flammability (liquids)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit / Upper flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit / Lower flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>insoluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
</tbody>
</table>
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</tr>
</tbody>
</table>

- **Oxidizing properties**: The substance or mixture is not classified as oxidizing.
- **Molecular weight**: Not applicable
- **Particle size**: No data available

### SECTION 10. STABILITY AND REACTIVITY

- **Reactivity**: Not classified as a reactivity hazard.
- **Chemical stability**: Stable under normal conditions.
- **Possibility of hazardous reactions**: May form explosive dust-air mixture during processing, handling or other means. Can react with strong oxidizing agents.
- **Conditions to avoid**: Heat, flames and sparks. Avoid dust formation.
- **Incompatible materials**: Oxidizing agents
- **Hazardous decomposition products**: No hazardous decomposition products are known.

### SECTION 11. TOXICOLOGICAL INFORMATION

- **Information on likely routes of exposure**: Inhalation, Skin contact, Ingestion, Eye contact

#### Acute toxicity

Harmful if swallowed.

**Product:**

- **Acute oral toxicity**: Acute toxicity estimate: 955.73 mg/kg. Method: Calculation method
- **Acute inhalation toxicity**: Acute toxicity estimate: > 10 mg/l. Exposure time: 4 h. Test atmosphere: dust/mist. Method: Calculation method

**Components:**

- **Amitraz (ISO):**
  - **Acute oral toxicity**: LD50 (Rat): > 400 mg/kg
    - LD50 (Mouse): > 1.085 mg/kg
    - LD50 (Guinea pig): > 400 mg/kg
  - **Acute inhalation toxicity**: Remarks: No data available
  - **Acute dermal toxicity**: LD50 (Rat): > 1.600 mg/kg

**Aluminium silicate:**
<table>
<thead>
<tr>
<th></th>
<th>Amitraz Solid Formulation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute oral toxicity</strong></td>
<td>LD50 (Rat): &gt; 5.000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Remarks: Based on data from similar materials</td>
</tr>
<tr>
<td><strong>Acute inhalation toxicity</strong></td>
<td>LC50 (Rat): 50 mg/l</td>
</tr>
<tr>
<td></td>
<td>Exposure time: 4 h</td>
</tr>
<tr>
<td></td>
<td>Test atmosphere: dust/mist</td>
</tr>
<tr>
<td></td>
<td>Remarks: Based on data from similar materials</td>
</tr>
<tr>
<td><strong>Acute dermal toxicity</strong></td>
<td>LD50 (Rat): &gt; 2.000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Method: OECD Test Guideline 402</td>
</tr>
<tr>
<td></td>
<td>Assessment: The substance or mixture has no acute dermal toxicity</td>
</tr>
<tr>
<td></td>
<td>Remarks: Based on data from similar materials</td>
</tr>
<tr>
<td><strong>Paraformaldehyde</strong></td>
<td>Acute oral toxicity: LD50 (Rat): 592 mg/kg</td>
</tr>
<tr>
<td><strong>Acute inhalation toxicity</strong></td>
<td>LC50 (Rat): 1,07 mg/l</td>
</tr>
<tr>
<td></td>
<td>Exposure time: 4 h</td>
</tr>
<tr>
<td></td>
<td>Test atmosphere: dust/mist</td>
</tr>
<tr>
<td><strong>Acute dermal toxicity</strong></td>
<td>LD50 (Rabbit): &gt; 10.000 mg/kg</td>
</tr>
<tr>
<td><strong>Sodium bis(2-ethylhexyl)sulfosuccinate</strong></td>
<td>Acute oral toxicity: LD50 (Rat): 3.080 mg/kg</td>
</tr>
<tr>
<td><strong>Acute dermal toxicity</strong></td>
<td>LD50 (Rabbit): &gt; 5.000 mg/kg</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>Causes mild skin irritation.</td>
</tr>
</tbody>
</table>

### Components:

**Amitraz (ISO):**

- **Species:** Rabbit
- **Result:** No skin irritation

**Aluminium silicate:**

- **Species:** Rabbit
- **Method:** OECD Test Guideline 404
- **Result:** No skin irritation
- **Remarks:** Based on data from similar materials

**Paraformaldehyde:**

- **Species:** Rabbit
- **Result:** Skin irritation

**Sodium bis(2-ethylhexyl)sulfosuccinate:**

- **Species:** Rabbit
- **Method:** OECD Test Guideline 404
- **Result:** Skin irritation
Serious eye damage/eye irritation
Causes serious eye damage.

Components:

Amitraz (ISO):
Species: Rabbit
Result: No eye irritation

Aluminium silicate:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405
Remarks: Based on data from similar materials

Paraformaldehyde:
Species: Rabbit
Result: Irreversible effects on the eye

Sodium bis(2-ethylhexyl)sulfosuccinate:
Species: Rabbit
Result: Irreversible effects on the eye
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.

Components:

Amitraz (ISO):
Test Type: Maximization Test
Routes of exposure: Dermal
Species: Guinea pig
Result: Not a skin sensitizer.

Aluminium silicate:
Test Type: Local lymph node assay (LLNA)
Routes of exposure: Skin contact
Species: Mouse
Method: OECD Test Guideline 429
Result: negative
Remarks: Based on data from similar materials

Sodium bis(2-ethylhexyl)sulfosuccinate:
Test Type: Human repeat insult patch test (HRIPT)
Germ cell mutagenicity
Not classified based on available information.

Components:

Amitraz (ISO):
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative

Aluminium silicate:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Sodium bis(2-ethylhexyl)sulfosuccinate:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

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

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity
Not classified based on available information.

Components:

Amitraz (ISO):
Species: Rat
Application Route: Oral
Exposure time: 2 Years
NOAEL: > 10,18 mg/kg body weight
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Result : negative
Species : Mouse
Exposure time : 2 Years
LOAEL : 2.3 mg/kg body weight
Result : positive
Target Organs : Liver, Stomach

Reproductive toxicity
Not classified based on available information.

Components:
Amitraz (ISO):
Effects on fertility : Test Type: Three-generation reproduction toxicity study
Species: Rat
Application Route: Oral
Fertility: NOAEL: > 4.8 mg/kg body weight
Result: No significant adverse effects were reported

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Oral
Developmental Toxicity: NOAEL: 3 mg/kg body weight
Remarks: No significant adverse effects were reported

Test Type: Embryo-fetal development
Species: Rabbit
Application Route: Oral
Developmental Toxicity: NOAEL: 5 mg/kg body weight
Result: Effects on fetal development.

Aluminium silicate:
Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Sodium bis(2-ethylhexyl)sulfosuccinate:
Effects on fertility : Test Type: Three-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

STOT-single exposure
Not classified based on available information.
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Components:

Paraformaldehyde:
Assessment: May cause respiratory irritation.

STOT-repeated exposure
May cause damage to organs (Liver, Central nervous system) through prolonged or repeated exposure.

Components:

Amitraz (ISO):
Target Organs: Liver, Central nervous system
Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

Amitraz (ISO):
Species: Mouse
NOAEL: 3 mg/kg
Application Route: Oral
Exposure time: 90 Days
Target Organs: Liver
Species: Dog
NOAEL: 0.25 mg/kg
Application Route: Oral
Exposure time: 90 Days
Target Organs: Central nervous system, Liver

Aluminium silicate:
Species: Rat
NOAEL: >= 1,000 mg/kg
Application Route: Ingestion
Exposure time: 28 Days
Remarks: Based on data from similar materials

Sodium bis(2-ethylhexyl)sulfosuccinate:
Species: Rat
NOAEL: 750 mg/kg
Application Route: Ingestion
Exposure time: 90 Days

Aspiration toxicity
Not classified based on available information.
Experience with human exposure

Components:

Amitraz (ISO):
Ingestion: Target Organs: Central nervous system

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Amitraz (ISO):
Toxicity to fish: LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.45 mg/l
Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 0.035 mg/l
Exposure time: 48 h
Toxicity to algae/aquatic plants: NOEC (Pseudokirchneriella subcapitata (green algae)): 0.04 mg/l
Exposure time: 91 h
M-Factor (Acute aquatic toxicity): 10
Toxicity to fish (Chronic toxicity): NOEC (Pimephales promelas (fathead minnow)): 0.00148 mg/l
Exposure time: 32 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC (Daphnia magna (Water flea)): 0.0011 mg/l
Exposure time: 21 d
M-Factor (Chronic aquatic toxicity): 10

Aluminium silicate:
Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants: EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials
Toxicity to microorganisms: EC50: > 1.000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

Paraformaldehyde:
Toxicity to fish: LC50: 6.7 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

<table>
<thead>
<tr>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
<th>EC50 (Daphnia pulex (Water flea)): 5,8 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to algae/aquatic plants</td>
<td>ErC50 (Desmodesmus subspicatus (green algae)): 4,89 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials</td>
</tr>
<tr>
<td>Toxicity to fish (Chronic toxicity)</td>
<td>NOEC (Oryzias latipes (Orange-red killifish)): &gt;= 48 mg/l Exposure time: 28 d</td>
</tr>
<tr>
<td>Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)</td>
<td>(Daphnia magna (Water flea)): &gt;= 6,4 mg/l Exposure time: 21 d Method: OECD Test Guideline 211</td>
</tr>
<tr>
<td>Toxicity to microorganisms</td>
<td>EC50: 34,1 mg/l Exposure time: 120 h Remarks: Based on data from similar materials</td>
</tr>
</tbody>
</table>

**Sodium bis(2-ethylhexyl)sulfosuccinate:**

| Toxicity to daphnia and other aquatic invertebrates | EC50 (Daphnia magna (Water flea)): 6,6 mg/l Exposure time: 48 h |
| Toxicity to algae/aquatic plants | ErC50 (Desmodesmus subspicatus (green algae)): 82,5 mg/l Exposure time: 72 h |
| | EC10 (Desmodesmus subspicatus (green algae)): 22 mg/l Exposure time: 72 h |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | EC10 (Daphnia magna (Water flea)): 9 mg/l Exposure time: 21 d Method: OECD Test Guideline 211 |
| Toxicity to microorganisms | EC50 (Pseudomonas putida): 164 mg/l Exposure time: 16 h |

**Persistence and degradability**

**Components:**

**Paraformaldehyde:**

Biodegradability: Result: Readily biodegradable.

**Sodium bis(2-ethylhexyl)sulfosuccinate:**
Biodegradability: Result: Readily biodegradable. Biodegradation: 91.2% Exposure time: 28 d

**Bioaccumulative potential**

**Components:**

**Amitraz (ISO):**
Bioaccumulation: Species: Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): 1.333

Partition coefficient: n-octanol/water: log Pow: 5.5

**Paraformaldehyde:**
Bioaccumulation: Bioconcentration factor (BCF): < 500

**Sodium bis(2-ethylhexyl)sulfosuccinate:**
Partition coefficient: n-octanol/water: log Pow: 1.998 Remarks: Calculation

**Mobility in soil**

**Components:**

**Amitraz (ISO):**
Distribution among environmental compartments: log Koc: 3.3

**Other adverse effects**
No data available

### SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**
- Waste from residues: Dispose of in accordance with local regulations.
- Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

### SECTION 14. TRANSPORT INFORMATION

**International Regulations**

**UNRTDG**
- **UN number**: UN 3077
- **Proper shipping name**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Amitraz (ISO))
- **Class**: 9
- **Packing group**: III
- **Labels**: 9
IATA-DGR
UN/ID No.: UN 3077
Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Amitraz (ISO))
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. (Amitraz (ISO))
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.

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
Argentina. Carcinogenic Substances and Agents Registry: Not applicable

Control of precursors and essential chemicals for the preparation of drugs: Not applicable

International Regulations
The ingredients of this product are reported in the following inventories:
AICS: not determined
DSL: not determined
IECSC: not determined
Further information


Full text of other abbreviations

ACGIH: USA. ACGIH Threshold Limit Values (TLV)
ACGIH / TWA: 8-hour, time-weighted average

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user’s end product, if applicable.
# Amitraz Solid Formulation

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