

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Amitraz (50%) Solid Formulation  
Other means of identification : COOPERS AMITIK CATTLE DIP AND SPRAY (41044)

**Manufacturer or supplier's details**

Company name of supplier : MSD  
Address : 126 E. Lincoln Avenue  
Rahway, New Jersey U.S.A. 07065  
Telephone : 908-740-4000  
Emergency telephone : 1-908-423-6000  
E-mail address : EHSDATASTEWARD@msd.com

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

Recommended use : Veterinary product  
Restrictions on use : Not applicable

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Acute toxicity (Oral) : Category 4  
Skin corrosion/irritation : Category 3  
Serious eye damage/eye irritation : Category 1  
Skin sensitization : Category 1  
Germ cell mutagenicity : Category 2  
Carcinogenicity : Category 1B  
Specific target organ toxicity - repeated exposure : Category 2 (Liver, Central nervous system)

**GHS label elements**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H302 Harmful if swallowed.  
H316 Causes mild skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H341 Suspected of causing genetic defects.  
H350 May cause cancer.  
H373 May cause damage to organs (Liver, Central nervous system)

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

system) through prolonged or repeated exposure.

**Precautionary Statements**

:

**Prevention:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

P302 + P352 IF ON SKIN: Wash with plenty of water.

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 or doctor/ physician.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

**Storage:**

P405 Store locked up.

**Disposal:**

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

**Other hazards**

May form explosive dust-air mixture during processing, handling or other means.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

Chemical name	CAS-No.	Concentration (% w/w)
Amitraz (ISO)	33089-61-1	>= 50 -< 70
Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	9084-06-4	>= 10 -< 20
Nonylphenol, ethoxylated	9016-45-9	>= 1 -< 3
Paraformaldehyde	30525-89-4	>= 1 -< 3

**SECTION 4. FIRST AID MEASURES**

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

---

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.
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. 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. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. May cause cancer. 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.

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**SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO <sub>2</sub> ) 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 Sulfur oxides Metal 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

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

---

so.  
Evacuate area.

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

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.  
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.

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**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 : If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing.  
Do not breathe dust.  
Do not swallow.  
Do not get in eyes.  
Wash skin thoroughly after handling.  
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
Keep container tightly closed.  
Keep away from water.  
Protect from moisture.  
Minimize dust generation and accumulation.

**Amitraz (50%) Solid Formulation**

Version 3.0      Revision Date: 14.04.2025      SDS Number: 10650650-00006      Date of last issue: 27.11.2023  
 Date of first issue: 09.04.2022

- Keep container closed when not in use.  
 Keep away from heat and sources of ignition.  
 Take precautionary measures against static discharges.  
 Do not eat, drink or smoke when using this product.  
 Take care to prevent spills, waste and minimize release to the environment.
- 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.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Wash contaminated clothing before re-use.  
 The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Conditions for safe storage** : Keep in properly labeled containers.  
 Store locked up.  
 Keep tightly closed.  
 Store in accordance with the particular national regulations.
- Materials to avoid** : Do not store with the following product types:  
 Strong oxidizing agents  
 Self-reactive substances and mixtures  
 Organic peroxides  
 Explosives  
 Gases

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Ingredients with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Amitraz (ISO)	33089-61-1	TWA	10 µg/m <sup>3</sup> (OEB 3)	Internal
		Wipe limit	1250 µg/100 cm <sup>2</sup>	Internal

**Occupational exposure limits of decomposition products**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Formaldehyde	50-00-0	VLE-P	0.3 ppm	NOM-010-STPS-2014
		TWA	0.1 ppm	ACGIH
		STEL	0.3 ppm	ACGIH

- Engineering measures** : All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.  
 Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

the compound to uncontrolled areas (e.g., open-face containment devices).  
Minimize open handling.

**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	:	Combined particulates and inorganic gas/vapor type
Hand protection	:	
Material	:	Chemical-resistant gloves
Remarks	:	Consider double gloving.
Eye protection	:	Wear safety glasses with side shields or goggles. If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.
Skin and body protection	:	Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	:	powder
Color	:	white gray
Odor	:	No data available
Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	May form explosive dust-air mixture during processing, handling or other means.
Flammability (liquids)	:	No data available

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	Not applicable
Relative vapor density	:	Not applicable
Relative density	:	No data available
Density	:	No data available
Solubility(ies)	:	
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	
Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Molecular weight	:	No data available
Particle characteristics	:	
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. Hazardous decomposition products will be formed upon contact with water or humid air.
Conditions to avoid	:	Exposure to moisture. Heat, flames and sparks. Avoid dust formation.
Incompatible materials	:	Oxidizing agents Water

**Hazardous decomposition products**

Contact with water or humid	:	Formaldehyde
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**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

air

**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: 911.67 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

**Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

Acute oral toxicity : LD50 (Rat): > 2,000 - 5,000 mg/kg  
Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

**Nonylphenol, ethoxylated:**

Acute oral toxicity : LD50 (Rat): 500 - 2,000 mg/kg

**Paraformaldehyde:**

Acute oral toxicity : LD50 (Rat, male): 592 mg/kg  
Acute inhalation toxicity : LC50 (Rat): 1.07 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Acute dermal toxicity : LD50 (Rat): > 10,000 mg/kg

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

---

**II****Skin corrosion/irritation**

Causes mild skin irritation.

**Components:****Amitraz (ISO):**

Species	: Rabbit
Result	: No skin irritation

**Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

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

**Nonylphenol, ethoxylated:**

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

**Paraformaldehyde:**

Species	: Rabbit
Result	: Skin irritation

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Components:****Amitraz (ISO):**

Species	: Rabbit
Result	: No eye irritation

**Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

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

**Nonylphenol, ethoxylated:**

Species	: Rabbit
Result	: Irreversible effects on the eye
Method	: OECD Test Guideline 405

**Paraformaldehyde:**

Species	: Rabbit
Result	: Irreversible effects on the eye

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

---

**Respiratory or skin sensitization****Skin sensitization**

May cause an allergic skin reaction.

**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.

**Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

Test Type	: Buehler Test
Routes of exposure	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: negative

**Nonylphenol, ethoxylated:**

Test Type	: Maximization Test
Routes of exposure	: Skin contact
Species	: Guinea pig
Result	: negative
Remarks	: Based on data from similar materials

**Paraformaldehyde:**

Test Type	: Local lymph node assay (LLNA)
Routes of exposure	: Skin contact
Species	: Mouse
Result	: positive
Remarks	: Based on data from similar materials

Assessment	: Probability or evidence of high skin sensitization rate in humans
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**Germ cell mutagenicity**

Suspected of causing genetic defects.

**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

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

Result: negative

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

Result: negative

**Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

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

**Nonylphenol, ethoxylated:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative  
Remarks: Based on data from similar materials

**Paraformaldehyde:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: positive  
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test

Result: positive

Remarks: Based on data from similar materials

Test Type: in vitro micronucleus test

Result: positive

Remarks: Based on data from similar materials

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

Result: positive

Remarks: Based on data from similar materials

Test Type: In vitro sister chromatid exchange assay in mammalian cells

Result: positive

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)

Species: Rat

Application Route: inhalation (vapor)

Result: positive

Remarks: Based on data from similar materials

Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)

Species: Rat

Application Route: Ingestion

Result: positive

Remarks: Based on data from similar materials

Germ cell mutagenicity - : Positive result(s) from in vivo mammalian somatic cell muta-

## Amitraz (50%) Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

---

Assessment genicity tests.

### Carcinogenicity

May cause cancer.

### Components:

#### Amitraz (ISO):

Species	: Rat
Application Route	: Oral
Exposure time	: 2 Years
NOAEL	: > 10.18 mg/kg body weight
Result	: negative

Species	: Mouse
Exposure time	: 2 Years
LOAEL	: 2.3 mg/kg body weight
Result	: positive
Target Organs	: Liver, Stomach

#### Paraformaldehyde:

Species	: Rat
Application Route	: Ingestion
Exposure time	: 105 weeks
Result	: negative

Species	: Rat
Application Route	: Inhalation
Exposure time	: 28 Months
Result	: positive
Remarks	: Based on data from similar materials

Carcinogenicity - Assessment	: Sufficient evidence of carcinogenicity in animal experiments
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### 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
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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
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	: Test Type: Embryo-fetal development Species: Rabbit
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**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

Application Route: Oral  
Developmental Toxicity: NOAEL: 5 mg/kg body weight  
Result: Effects on fetal development.

**Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 422  
Result: negative

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 422  
Result: negative

**STOT-single exposure**

Not classified based on available information.

**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

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

|| Target Organs : Central nervous system, Liver

**Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

|| Species : Rat  
|| NOAEL :  $\geq 1,000$  mg/kg  
|| Application Route : Ingestion  
|| Exposure time : 42 Days  
|| Method : OECD Test Guideline 422

**Paraformaldehyde:**

|| Species : Rat, male  
|| NOAEL : 15 mg/kg  
|| Application Route : Ingestion  
|| Exposure time : 105 Weeks  
|| Remarks : Based on data from similar materials

**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 : EC50 (*Daphnia magna* (Water flea)): 0.035 mg/l  
aquatic invertebrates Exposure time: 48 h

|| Toxicity to algae/aquatic : NOEC (*Pseudokirchneriella subcapitata* (green algae)): 0.04  
plants mg/l  
Exposure time: 91 h

|| Toxicity to fish (Chronic tox- : NOEC (*Pimephales promelas* (fathead minnow)): 0.00148  
icity) mg/l  
Exposure time: 32 d

|| Toxicity to daphnia and other : NOEC (*Daphnia magna* (Water flea)): 0.0011 mg/l  
aquatic invertebrates (Chron- Exposure time: 21 d  
ic toxicity)

**Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:**

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 100 mg/l  
 Exposure time: 96 h  
 Method: OECD Test Guideline 203

**Nonylphenol, ethoxylated:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 0.1 - 1 mg/l  
 Exposure time: 96 h  
 Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia dubia (water flea)): > 0.1 - 1 mg/l  
 Exposure time: 48 h  
 Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 (Selenastrum capricornutum (green algae)): > 1 - 10 mg/l  
 Exposure time: 72 h  
 Method: OECD Test Guideline 201  
 Remarks: Based on data from similar materials

EC10 (Selenastrum capricornutum (green algae)): > 1 mg/l  
 Exposure time: 72 h  
 Method: OECD Test Guideline 201  
 Remarks: Based on data from similar materials

Toxicity to fish (Chronic toxicity) : NOEC (Oryzias latipes (Japanese medaka)): > 0.1 - 1 mg/l  
 Exposure time: 100 d  
 Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Mysidopsis bahia (opossum shrimp)): > 0.001 - 0.01 mg/l  
 Exposure time: 28 d  
 Remarks: Based on data from similar materials

**Paraformaldehyde:**

Toxicity to fish : LC50 : > 1 mg/l  
 Exposure time: 96 h  
 Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): > 1 mg/l  
 Exposure time: 48 h  
 Method: OECD Test Guideline 202  
 Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): > 1 mg/l  
 Exposure time: 72 h  
 Method: OECD Test Guideline 201  
 Remarks: Based on data from similar materials

Toxicity to fish (Chronic toxicity) : NOEC (Oryzias latipes (Orange-red killifish)): > 1 mg/l  
 Exposure time: 28 d  
 Remarks: Based on data from similar materials

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): > 1 mg/l

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

aquatic invertebrates (Chronic toxicity)		Exposure time: 21 d Method: OECD Test Guideline 211 Remarks: Based on data from similar materials
Toxicity to microorganisms	:	EC50: > 10 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: Based on data from similar materials

**Persistence and degradability****Components:****Nonylphenol, ethoxylated:**

Biodegradability	:	Result: Not readily biodegradable. Remarks: Based on data from similar materials
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**Paraformaldehyde:**

Biodegradability	:	Result: Readily biodegradable. Remarks: Based on data from similar materials
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**Bioaccumulative potential****Components:****Amitraz (ISO):**

Bioaccumulation	:	Species: Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): 1,333
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Partition coefficient: n-octanol/water	:	log Pow: 5.5
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**Nonylphenol, ethoxylated:**

Partition coefficient: n-octanol/water	:	log Pow: 4.48
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**Paraformaldehyde:**

Partition coefficient: n-octanol/water	:	log Pow: -1.40 Remarks: Calculation
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**Mobility in soil****Components:****Amitraz (ISO):**

Distribution among environmental compartments	:	log Koc: 3.3
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**Other adverse effects**

No data available

**Amitraz (50%) Solid Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2023
3.0	14.04.2025	10650650-00006	Date of first issue: 09.04.2022

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues	:	Do not dispose of waste into sewer. 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), Nonylphenol, ethoxylated)
Class	:	9
Packing group	:	III
Labels	:	9
Environmentally hazardous	:	yes

**IATA-DGR**

UN/ID No.	:	UN 3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (Amitraz (ISO), Nonylphenol, ethoxylated)
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), Nonylphenol, ethoxylated)
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****NOM-002-SCT**

UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

**Amitraz (50%) Solid Formulation**

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(Amitraz (ISO), Nonylphenol, ethoxylated)

Class	:	9
Packing group	:	III
Labels	:	9

**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**

Federal Law for the control of chemical precursors, essential chemical products and machinery for producing capsules, tablets and pills. : Not applicable

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

AICS	:	not determined
DSL	:	not determined
IECSC	:	not determined

**SECTION 16. OTHER INFORMATION**

Revision Date	:	14.04.2025
Date format	:	dd.mm.yyyy

**Full text of other abbreviations**

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NOM-010-STPS-2014	:	Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NOM-010-STPS-2014 / VLE-P	:	Ceiling value

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 Chemi-

**Amitraz (50%) Solid Formulation**

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cal 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

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

The information is considered as correct, but not exhaustive, and will be used only as a guide, which is based in the current knowledge of the substance or mixture, and is applicable to proper safety precautions for the product.

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