

## Amitraz (12.5%) EC Liquid Formulation

|         |                |                |                                 |
|---------|----------------|----------------|---------------------------------|
| Version | Revision Date: | SDS Number:    | Date of last issue: 28.09.2024  |
| 3.0     | 14.04.2025     | 11171617-00004 | Date of first issue: 23.02.2023 |

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Amitraz (12.5%) EC Liquid Formulation

#### Manufacturer or supplier's details

Company : MSD

Address : Briahnager - Off Pune Nagar Road  
Wagholi - Pune - India 412 207

Telephone : +1-908-740-4000

Emergency telephone number : +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

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### 2. HAZARDS IDENTIFICATION

#### Manufacture, Storage and Import of Hazardous Chemicals Rules 1989

##### Classification

Not classified as hazardous according to criteria laid down in Part I of Schedule-1.

##### GHS Classification

Acute toxicity (Oral) : Category 4

Serious eye damage/eye irritation : Category 1

Reproductive toxicity : Category 1B

Specific target organ toxicity - single exposure : Category 3

Specific target organ toxicity - repeated exposure : Category 2 (Liver, Central nervous system, Kidney, Heart, Gastrointestinal tract, Lymph nodes)

Aspiration hazard : Category 1

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

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### GHS label elements

|                          |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard pictograms        | : |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Signal word              | : | Danger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Hazard statements        | : | H302 Harmful if swallowed.<br>H304 May be fatal if swallowed and enters airways.<br>H318 Causes serious eye damage.<br>H336 May cause drowsiness or dizziness.<br>H360F May damage fertility.<br>H373 May cause damage to organs (Liver, Central nervous system, Kidney, Heart, Gastrointestinal tract, Lymph nodes) through prolonged or repeated exposure.<br>H410 Very toxic to aquatic life with long lasting effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Precautionary statements | : | <b>Prevention:</b><br>P203 Obtain, read and follow all safety instructions before use.<br>P260 Do not breathe mist or vapours.<br>P264+P265 Wash hands thoroughly after handling. Do not touch eyes.<br>P270 Do not eat, drink or smoke when using this product.<br>P271 Use only outdoors or with adequate ventilation.<br>P273 Avoid release to the environment.<br>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.<br><br><b>Response:</b><br>P301 + P316 + P330 IF SWALLOWED: Get emergency medical help immediately. Rinse mouth.<br>P304 + P340 + P319 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help if you feel unwell.<br>P305 + P354 + P338 + P317 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help.<br>P318 IF exposed or concerned, get medical advice.<br>P331 Do NOT induce vomiting.<br>P391 Collect spillage.<br><br><b>Storage:</b><br>P405 Store locked up.<br><br><b>Disposal:</b><br>P501 Dispose of contents/ container to an approved waste disposal plant. |

### Other hazards which do not result in classification

Repeated exposure may cause skin dryness or cracking.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Substance / Mixture : Mixture

### Components

| Chemical name                                 | CAS-No.    | Concentration (% w/w) |
|-----------------------------------------------|------------|-----------------------|
| Hydrocarbons, C10, aromatics, <1% naphthalene | 64742-94-5 | >= 50 - < 70          |
| Nonylphenol, ethoxylated                      | 9016-45-9  | >= 20 - < 25          |
| amitraz (ISO)                                 | 33089-61-1 | >= 10 - < 20          |
| Bis(2,6-diisopropylphenyl)carbodiimide        | 2162-74-5  | >= 1 - < 2.5          |

## 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.
- 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.  
If vomiting occurs have person lean forward.  
Call a physician or poison control centre immediately.  
Rinse mouth thoroughly with water.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : Prolonged or repeated contact may dry skin and cause irritation.  
Harmful if swallowed.  
May be fatal if swallowed and enters airways.  
Causes serious eye damage.  
May cause drowsiness or dizziness.  
May damage fertility.  
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.

## 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing : None known.

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media

- Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)
- 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.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

### 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.  
Prevent spreading over a wide area (e.g. by containment or oil barriers).  
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 : Soak up with inert absorbent material.  
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.  
Clean up remaining materials from spill with suitable absorbent.  
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.

### 7. HANDLING AND STORAGE

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.
- Advice on safe handling : Do not get on skin or clothing.

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Do not breathe mist or vapours.  
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.  
Do not eat, drink or smoke when using this product.  
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage : Keep in properly labelled containers.  
Store locked up.  
Keep tightly closed.  
Keep in a cool, well-ventilated place.  
Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:  
Strong oxidizing agents

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

| Components                                    | CAS-No.    | Value type<br>(Form of exposure)   | Control parameters / Permissible concentration | Basis    |
|-----------------------------------------------|------------|------------------------------------|------------------------------------------------|----------|
| Hydrocarbons, C10, aromatics, <1% naphthalene | 64742-94-5 | TWA (Mist)                         | 5 mg/m <sup>3</sup>                            | IN OEL   |
|                                               |            | STEL (Mist)                        | 10 mg/m <sup>3</sup>                           | IN OEL   |
|                                               |            | TWA (Inhalable particulate matter) | 5 mg/m <sup>3</sup>                            | ACGIH    |
| 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 |

**Engineering measures** : Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).  
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 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 organic vapour type

Hand protection

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|                          |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material                 | : | Chemical-resistant gloves                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Remarks                  | : | Consider double gloving.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Eye protection           | : | Wear safety glasses with side shields or goggles.<br>If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.<br>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.<br>Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces.<br>Use appropriate degowning techniques to remove potentially contaminated clothing.                                                                                                                                                                                                              |
| Hygiene measures         | : | If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.<br>When using do not eat, drink or smoke.<br>Wash contaminated clothing before re-use.<br>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. |

### 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                         |   |                   |
|-----------------------------------------|---|-------------------|
| Appearance                              | : | liquid            |
| Colour                                  | : | clear<br>yellow   |
| Odour                                   | : | No data available |
| Odour 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                             | : | No data available |
| Evaporation rate                        | : | No data available |
| Flammability (solid, gas)               | : | Not applicable    |
| Flammability (liquids)                  | : | No data available |
| Upper explosion limit / Upper           | : | No data available |

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flammability limit

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : No data available

Solubility(ies)  
Water solubility : No data available

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity  
Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

Particle characteristics  
Particle size : Not applicable

### 10. STABILITY AND REACTIVITY

|                                    |                                                  |
|------------------------------------|--------------------------------------------------|
| Reactivity                         | : Not classified as a reactivity hazard.         |
| Chemical stability                 | : Stable under normal conditions.                |
| Possibility of hazardous reactions | : Can react with strong oxidizing agents.        |
| Conditions to avoid                | : None known.                                    |
| Incompatible materials             | : Oxidizing agents                               |
| Hazardous decomposition products   | : No hazardous decomposition products are known. |

### 11. TOXICOLOGICAL INFORMATION

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

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### Acute toxicity

Harmful if swallowed.

### Product:

Acute oral toxicity : Acute toxicity estimate: 1,491 mg/kg  
Method: Calculation method

### Components:

#### Hydrocarbons, C10, aromatics, <1% naphthalene:

|                           |                                                                                                                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : LD50 (Rat): > 5,000 mg/kg<br>Method: OECD Test Guideline 420<br>Remarks: Based on data from similar materials                                                                         |
| Acute inhalation toxicity | : LC50 (Rat): > 4.778 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: OECD Test Guideline 403<br>Remarks: Based on data from similar materials                      |
| Acute dermal toxicity     | : LD50 (Rabbit): > 2,000 mg/kg<br>Method: OECD Test Guideline 402<br>Assessment: The substance or mixture has no acute dermal toxicity<br>Remarks: Based on data from similar materials |

#### Nonylphenol, ethoxylated:

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

#### amitraz (ISO):

|                           |                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : LD50 (Rat): > 400 mg/kg<br>LD50 (Mouse): > 1,085 mg/kg<br>LD50 (Guinea pig): > 400 mg/kg |
| Acute inhalation toxicity | : Remarks: No data available                                                               |
| Acute dermal toxicity     | : LD50 (Rat): > 1,600 mg/kg                                                                |

#### Bis(2,6-diisopropylphenyl)carbodiimide:

|                       |                                                                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Acute oral toxicity   | : LD50 (Rat): > 300 - 2,000 mg/kg<br>Method: OECD Test Guideline 423                                                                |
| Acute dermal toxicity | : LD50 (Rat): > 2,000 mg/kg<br>Method: OECD Test Guideline 402<br>Assessment: The substance or mixture has no acute dermal toxicity |

### Skin corrosion/irritation

Not classified based on available information.

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### Components:

#### **Hydrocarbons, C10, aromatics, <1% naphthalene:**

|            |                                                         |
|------------|---------------------------------------------------------|
| Assessment | : Repeated exposure may cause skin dryness or cracking. |
|------------|---------------------------------------------------------|

#### **Nonylphenol, ethoxylated:**

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

#### **amitraz (ISO):**

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

#### **Bis(2,6-diisopropylphenyl)carbodiimide:**

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

### **Serious eye damage/eye irritation**

Causes serious eye damage.

### Components:

#### **Hydrocarbons, C10, aromatics, <1% naphthalene:**

|         |                                        |
|---------|----------------------------------------|
| Species | : Rabbit                               |
| Result  | : No eye irritation                    |
| Remarks | : Based on data from similar materials |

#### **Nonylphenol, ethoxylated:**

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

#### **amitraz (ISO):**

|         |                     |
|---------|---------------------|
| Species | : Rabbit            |
| Result  | : No eye irritation |

#### **Bis(2,6-diisopropylphenyl)carbodiimide:**

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

### **Respiratory or skin sensitisation**

#### **Skin sensitisation**

Not classified based on available information.

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### Respiratory sensitisation

Not classified based on available information.

### Components:

#### Hydrocarbons, C10, aromatics, <1% naphthalene:

|                 |                                        |
|-----------------|----------------------------------------|
| Test Type       | : Maximisation Test                    |
| Exposure routes | : Skin contact                         |
| Species         | : Guinea pig                           |
| Result          | : negative                             |
| Remarks         | : Based on data from similar materials |

#### Nonylphenol, ethoxylated:

|                 |                                        |
|-----------------|----------------------------------------|
| Test Type       | : Maximisation Test                    |
| Exposure routes | : Skin contact                         |
| Species         | : Guinea pig                           |
| Result          | : negative                             |
| Remarks         | : Based on data from similar materials |

#### amitraz (ISO):

|                 |                          |
|-----------------|--------------------------|
| Test Type       | : Maximisation Test      |
| Exposure routes | : Dermal                 |
| Species         | : Guinea pig             |
| Result          | : Not a skin sensitizer. |

#### Bis(2,6-diisopropylphenyl)carbodiimide:

|                 |                           |
|-----------------|---------------------------|
| Test Type       | : Maximisation Test       |
| Exposure routes | : Skin contact            |
| Species         | : Guinea pig              |
| Method          | : OECD Test Guideline 406 |
| Result          | : negative                |

### Germ cell mutagenicity

Not classified based on available information.

### Components:

#### Hydrocarbons, C10, aromatics, <1% naphthalene:

|                       |                                                                                                                                                                                                                                 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Genotoxicity in vitro | : Test Type: In vitro sister chromatid exchange assay in mammalian cells<br>Result: negative<br>Remarks: Based on data from similar materials                                                                                   |
| Genotoxicity in vivo  | : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)<br>Species: Rat<br>Application Route: inhalation (vapour)<br>Result: negative<br>Remarks: Based on data from similar materials |

#### Nonylphenol, ethoxylated:

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

### 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

### Bis(2,6-diisopropylphenyl)carbodiimide:

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: negative

Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative

### 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  
Result : negative

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

### Reproductive toxicity

May damage fertility.

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### **Components:**

#### **Hydrocarbons, C10, aromatics, <1% naphthalene:**

|                               |   |                                                                                                                                                                                        |
|-------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Effects on fertility          | : | Test Type: Three-generation reproduction toxicity study<br>Species: Rat<br>Application Route: inhalation (vapour)<br>Result: negative<br>Remarks: Based on data from similar materials |
| Effects on foetal development | : | Test Type: Embryo-foetal development<br>Species: Rat<br>Application Route: Ingestion<br>Result: negative<br>Remarks: Based on data from similar materials                              |

#### **amitraz (ISO):**

|                               |   |                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Effects on fertility          | : | Test Type: Three-generation reproduction toxicity study<br>Species: Rat<br>Application Route: Oral<br>Fertility: NOAEL: > 4.8 mg/kg body weight<br>Result: No significant adverse effects were reported                                                                                                                                                                                 |
| Effects on foetal development | : | Test Type: Embryo-foetal development<br>Species: Rat<br>Application Route: Oral<br>Developmental Toxicity: NOAEL: 3 mg/kg body weight<br>Remarks: No significant adverse effects were reported<br><br>Test Type: Embryo-foetal development<br>Species: Rabbit<br>Application Route: Oral<br>Developmental Toxicity: NOAEL: 5 mg/kg body weight<br>Result: Effects on foetal development |

#### **Bis(2,6-diisopropylphenyl)carbodiimide:**

|                               |   |                                                                                                                                                                                                                                                                      |
|-------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Effects on fertility          | : | Test Type: Reproduction/Developmental toxicity screening test<br>Species: Rat<br>Application Route: Ingestion<br>Method: OECD Test Guideline 421<br>Result: positive<br><br>Test Type: Fertility<br>Species: Rat<br>Application Route: Ingestion<br>Result: positive |
| Effects on foetal development | : | Test Type: Reproduction/Developmental toxicity screening test<br>Species: Rat<br>Application Route: Ingestion<br>Method: OECD Test Guideline 421<br>Result: equivocal                                                                                                |

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Reproductive toxicity - Assessment : Clear evidence of adverse effects on sexual function and fertility, based on animal experiments.

### STOT - single exposure

May cause drowsiness or dizziness.

#### Components:

##### Hydrocarbons, C10, aromatics, <1% naphthalene:

Assessment : May cause drowsiness or dizziness.  
Remarks : Based on data from similar materials

### STOT - repeated exposure

May cause damage to organs (Liver, Central nervous system, Kidney, Heart, Gastrointestinal tract, Lymph nodes) 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.

##### Bis(2,6-diisopropylphenyl)carbodiimide:

Exposure routes : Ingestion  
Target Organs : Kidney, Heart, Gastrointestinal tract, Lymph nodes  
Assessment : Causes damage to organs through prolonged or repeated exposure.

### Repeated dose toxicity

#### Components:

##### Hydrocarbons, C10, aromatics, <1% naphthalene:

Species : Rat  
NOAEL : 300 mg/kg  
Application Route : Ingestion  
Exposure time : 13 Weeks  
Remarks : Based on data from similar materials

##### 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

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|| Target Organs : Central nervous system, Liver

### **Bis(2,6-diisopropylphenyl)carbodiimide:**

|                   |                           |
|-------------------|---------------------------|
| Species           | : Rat                     |
| NOAEL             | : 4 mg/kg                 |
| LOAEL             | : 16 mg/kg                |
| Application Route | : Ingestion               |
| Exposure time     | : 28 Days                 |
| Method            | : OECD Test Guideline 407 |

### **Aspiration toxicity**

May be fatal if swallowed and enters airways.

### **Components:**

#### **Hydrocarbons, C10, aromatics, <1% naphthalene:**

|| The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

### **Experience with human exposure**

### **Components:**

#### **amitraz (ISO):**

|| Ingestion : Target Organs: Central nervous system

## 12. ECOLOGICAL INFORMATION

### **Ecotoxicity**

### **Components:**

#### **Hydrocarbons, C10, aromatics, <1% naphthalene:**

|                                                     |                                                                                                                                                                                                                                 |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                    | : LL50 (Oncorhynchus mykiss (rainbow trout)): 2 - 5 mg/l<br>Exposure time: 96 h<br>Test substance: Water Accommodated Fraction<br>Method: OECD Test Guideline 203<br>Remarks: Based on data from similar materials              |
| Toxicity to daphnia and other aquatic invertebrates | : EL50 (Daphnia magna (Water flea)): 3 - 10 mg/l<br>Exposure time: 48 h<br>Test substance: Water Accommodated Fraction<br>Method: OECD Test Guideline 202<br>Remarks: Based on data from similar materials                      |
| Toxicity to algae/aquatic plants                    | : EL50 ( Pseudokirchneriella subcapitata (green algae)): > 1 - 3 mg/l<br>Exposure time: 72 h<br>Test substance: Water Accommodated Fraction<br>Method: OECD Test Guideline 201<br>Remarks: Based on data from similar materials |

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## Amitraz (12.5%) EC Liquid Formulation

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| Version | Revision Date: | SDS Number:    | Date of last issue: 28.09.2024  |
| 3.0     | 14.04.2025     | 11171617-00004 | Date of first issue: 23.02.2023 |

### Nonylphenol, ethoxylated:

|                                                                        |                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                                       | : LC50 (Pimephales promelas (fathead minnow)): > 0.1 - 1 mg/l<br>Exposure time: 96 h<br>Remarks: Based on data from similar materials                                                                                                                                                                                                                    |
| Toxicity to daphnia and other aquatic invertebrates                    | : EC50 (Ceriodaphnia dubia (water flea)): > 0.1 - 1 mg/l<br>Exposure time: 48 h<br>Remarks: Based on data from similar materials                                                                                                                                                                                                                         |
| Toxicity to algae/aquatic plants                                       | : ErC50 ( Selenastrum capricornutum (green algae)): > 1 - 10 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>Remarks: Based on data from similar materials<br><br>EC10 ( Selenastrum capricornutum (green algae)): > 1 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>Remarks: Based on data from similar materials |
| M-Factor (Acute aquatic toxicity)                                      | : 1                                                                                                                                                                                                                                                                                                                                                      |
| Toxicity to fish (Chronic toxicity)                                    | : NOEC: > 0.1 - 1 mg/l<br>Exposure time: 100 d<br>Species: Oryzias latipes (Japanese medaka)<br>Remarks: Based on data from similar materials                                                                                                                                                                                                            |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : NOEC: > 0.001 - 0.01 mg/l<br>Exposure time: 28 d<br>Species: Mysidopsis bahia (opossum shrimp)<br>Remarks: Based on data from similar materials                                                                                                                                                                                                        |
| M-Factor (Chronic aquatic toxicity)                                    | : 10                                                                                                                                                                                                                                                                                                                                                     |

### amitraz (ISO):

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

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.0011 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 10

### **Bis(2,6-diisopropylphenyl)carbodiimide:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.1 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: No toxicity at the limit of solubility

Toxicity to algae/aquatic plants : ErC50 ( Desmodesmus subspicatus (green algae)): > 1 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: No toxicity at the limit of solubility

NOEC ( Desmodesmus subspicatus (green algae)): > 1 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50: > 1,000 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209

### **Persistence and degradability**

#### **Components:**

##### **Hydrocarbons, C10, aromatics, <1% naphthalene:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 49.56 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

##### **Nonylphenol, ethoxylated:**

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

##### **Bis(2,6-diisopropylphenyl)carbodiimide:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 3 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

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### Bioaccumulative potential

#### Components:

##### **Nonylphenol, ethoxylated:**

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

##### **amitraz (ISO):**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
Bioconcentration factor (BCF): 1,333

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

##### **Bis(2,6-diisopropylphenyl)carbodiimide:**

Bioaccumulation : Bioconcentration factor (BCF): > 500

Partition coefficient: n-octanol/water : log Pow: > 6.2

### Mobility in soil

#### Components:

##### **amitraz (ISO):**

Distribution among environmental compartments : log Koc: 3.3

### Other adverse effects

No data available

## 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.

## 14. TRANSPORT INFORMATION

### International Regulations

#### **UNRTDG**

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(amitraz (ISO))

Class : 9

## Amitraz (12.5%) EC Liquid Formulation

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Packing group : III  
Labels : 9  
Environmentally hazardous : yes

### IATA-DGR

UN/ID No. : UN 3082  
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.  
(amitraz (ISO))  
Class : 9  
Packing group : III  
Labels : Miscellaneous  
Packing instruction (cargo aircraft) : 964  
Packing instruction (passenger aircraft) : 964  
Environmentally hazardous : yes

### IMDG-Code

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(amitraz (ISO))  
Class : 9  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes

### Transport in bulk according to IMO instruments

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.

## 15. REGULATORY INFORMATION

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

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

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

## 16. OTHER INFORMATION

Revision Date : 14.04.2025

### Further information

Sources of key data used to : Internal technical data, data from raw material SDSs, OECD

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compile the Safety Data Sheet

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.

Date format : dd.mm.yyyy

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
IN OEL : India. Permissible levels of certain chemical substances in work environment.

ACGIH / TWA : 8-hour, time-weighted average  
IN OEL / TWA : Time-Weighted Average Concentration (TWA) (8 hrs.)  
IN OEL / STEL : Short-term exposure Limit STEL (15 min)

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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

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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.

IN / EN