

# **Amitraz (5%) Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

#### **SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Amitraz (5%) Formulation

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** 

Flammable liquids : Category 3

Acute toxicity (Oral) : Category 5

Skin corrosion/irritation : Category 2

Serious eye damage/eye

irritation

Category 2A

Germ cell mutagenicity : Category 1B

Carcinogenicity : Category 1B

Reproductive toxicity : Category 1B

Specific target organ toxicity

- single exposure

Category 3

Specific target organ toxicity

- repeated exposure

Category 1 (Kidney, Heart, Gastrointestinal tract, Lymph nodes)

Specific target organ toxicity

- repeated exposure

Category 2 (Liver, Central nervous system)

Aspiration hazard : Category 1

**GHS** label elements

Hazard pictograms :

**!** 

Signal Word : Danger



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 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

Hazard Statements : H226 Flammable liquid and vapor.

H303 May be harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

H340 May cause genetic defects.

H350 May cause cancer. H360F May damage fertility.

H372 Causes damage to organs (Kidney, Heart, Gastrointestinal tract, Lymph nodes) through prolonged or repeated exposure.

H373 May cause damage to organs (Liver, Central nervous

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.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 Do not breathe mist or vapors.

P264 Wash skin thoroughly after handling.

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

P271 Use only outdoors or in a well-ventilated area.

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

#### Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a

POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water

for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: 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 dis-



# Amitraz (5%) Formulation

Date of last issue: 04.04.2023 Version Revision Date: SDS Number: 4.1 30.09.2023 1829211-00014 Date of first issue: 11.07.2017

posal plant.

#### Other hazards

Vapors may form explosive mixture with air.

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

Substance / Mixture : Mixture

#### Components

Chemical name	CAS-No.	Concentration (% w/w)	
Solvent naphtha (petroleum), light aromatic	64742-95-6	>= 70 -< 90	
4-Nonylphenol, branched, ethoxylated	127087-87-0	>= 10 -< 20	
Amitraz (ISO)	33089-61-1	>= 5 -< 10	
Bis(2,6-diisopropylphenyl)carbodiimide	2162-74-5	>= 1 -< 5	

### Alternative CAS Numbers for some regions

Chemical name	Alternative CAS Number(s)
4-Nonylphenol, branched, ethoxylated	68412-54-4

#### **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.

In case of skin contact In case of contact, immediately flush skin with plenty of water

for at least 15 minutes while removing contaminated clothing

and shoes.

Get medical attention. Wash clothing before reuse.

Thoroughly clean shoes before reuse.

In case of contact, immediately flush eyes with plenty of water In case of eye contact

for at least 15 minutes.

If easy to do, remove contact lens, if worn.

Get medical attention.

If swallowed, DO NOT induce vomiting. If swallowed

If vomiting occurs have person lean forward.

Call a physician or poison control center immediately.

Rinse mouth thoroughly with water.

Never give anything by mouth to an unconscious person.

Most important symptoms

and effects, both acute and

May be harmful if swallowed. May be fatal if swallowed and enters airways.

Causes skin irritation.

delayed

Causes serious eye irritation. May cause drowsiness or dizziness.

May cause genetic defects.

May cause cancer. May damage fertility.

Causes damage to organs through prolonged or repeated



# Amitraz (5%) Formulation

Date of last issue: 04.04.2023 Version Revision Date: SDS Number: 4.1 30.09.2023 1829211-00014 Date of first issue: 11.07.2017

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).

Treat symptomatically and supportively. Notes to physician

**SECTION 5. FIRE-FIGHTING MEASURES** 

Suitable extinguishing media Water spray

> Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

High volume water jet

Specific hazards during fire

fighting Flash back possible over considerable distance.

Vapors may form explosive mixtures with air.

Exposure to combustion products may be a hazard to health.

Do not use a solid water stream as it may scatter and spread

Hazardous combustion prod-

Carbon oxides

Nitrogen oxides (NOx)

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment. Use water spray to cool unopened containers.

Remove undamaged containers from fire area if it is safe to do

Evacuate area.

Special protective equipment:

for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES** 

Personal precautions, protec- :

tive equipment and emer-

gency procedures

Remove all sources of ignition.

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

Non-sparking tools should be used.

Soak up with inert absorbent material.

Suppress (knock down) gases/vapors/mists with a water spray

jet.

For large spills, provide diking or other appropriate

containment to keep material from spreading. If diked material

can be pumped, store recovered material in appropriate

container.



# Amitraz (5%) Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

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.

## **SECTION 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.

Use explosion-proof electrical, ventilating and lighting equip-

ment.

Advice on safe handling : Do not get on skin or clothing.

Do not breathe mist or vapors.

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

Non-sparking tools should be used. Keep container tightly closed.

Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

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.

Wash contaminated clothing before re-use

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.

Keep in a cool, well-ventilated place.

Store in accordance with the particular national regulations.

Keep away from heat and sources of ignition.

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

Strong oxidizing agents

Self-reactive substances and mixtures

Organic peroxides Flammable solids



# Amitraz (5%) Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

Pyrophoric liquids Pyrophoric solids

Self-heating substances and mixtures

Substances and mixtures which in contact with water emit

flammable gases

Explosives Gases

Very acutely toxic substances and mixtures

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Solvent naphtha (petroleum), light aromatic	64742-95-6	TWA	200 mg/m³ (total hydrocarbon vapor)	ACGIH
Amitraz (ISO)	33089-61-1	TWA	10 μg/m3 (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.

Use explosion-proof electrical, ventilating and lighting

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

Hand protection

Combined particulates and organic vapor type

Material : Chemical-resistant gloves

Remarks : Consider double gloving. Take note that the product is

flammable, which may impact the selection of hand

protection.

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



# Amitraz (5%) Formulation

Date of last issue: 04.04.2023 Version Revision Date: SDS Number: 4.1 30.09.2023 1829211-00014 Date of first issue: 11.07.2017

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** liquid

Color yellow

Odor characteristic, aromatic, hydrocarbon-like

Odor Threshold No data available

No data available pН

Melting point/freezing point Not applicable

Initial boiling point and boiling

range

No data available

53 °C Flash point

Evaporation rate No data available

Flammability (solid, gas) Not applicable

Flammability (liquids) Not applicable

Upper explosion limit / Upper

flammability limit

7 %(V)

Lower explosion limit / Lower :

flammability limit

0.8 %(V)

Vapor pressure No data available

Relative vapor density No data available

Relative density No data available

Density No data available

Solubility(ies)

Water solubility emulsifiable

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature No data available



# Amitraz (5%) Formulation

Date of last issue: 04.04.2023 Version Revision Date: SDS Number: 4.1 30.09.2023 1829211-00014 Date of first issue: 11.07.2017

Decomposition temperature No data available

Viscosity

Viscosity, kinematic No data available

Explosive properties Not explosive

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

Molecular weight Not applicable

Particle size Not applicable

#### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity Not classified as a reactivity hazard. Stable under normal conditions. Chemical stability

Possibility of hazardous reac-

Flammable liquid and vapor.

Vapors may form explosive mixture with air. Can react with strong oxidizing agents.

Conditions to avoid Heat, flames and sparks.

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**

May be harmful if swallowed.

**Product:** 

Acute oral toxicity Acute toxicity estimate: 2,376 mg/kg

Method: Calculation method

### **Components:**

#### Solvent naphtha (petroleum), light aromatic:

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

Acute inhalation toxicity LC50 (Rat): > 5.61 mg/l

> Exposure time: 4 h Test atmosphere: vapor

LD50 (Rabbit): > 2,000 mg/kg Acute dermal toxicity



# **Amitraz (5%) Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

4-Nonylphenol, branched, ethoxylated:

Acute oral toxicity : LD50 (Rat): > 300 - 2,000 mg/kg

Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

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

Bis(2,6-diisopropylphenyl)carbodiimide:

Acute oral toxicity : LD50 (Rat): > 300 - 2,000 mg/kg

Method: OECD Test Guideline 423

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

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Skin corrosion/irritation

Causes skin irritation.

**Components:** 

Solvent naphtha (petroleum), light aromatic:

Species : Rabbit

Method : OECD Test Guideline 404

Result : 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 irritation.



# Amitraz (5%) Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

#### **Components:**

#### Solvent naphtha (petroleum), light aromatic:

Species : Rabbit

Result : No eye irritation

Method : OECD Test Guideline 405

#### 4-Nonylphenol, branched, ethoxylated:

Species : Rabbit

Result : Irritation to eyes, reversing within 21 days

Amitraz (ISO):

Species : Rabbit

Result : No eye irritation

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

Species : Rabbit

Result : No eye irritation

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:

## Solvent naphtha (petroleum), light aromatic:

Test Type : Buehler Test
Routes of exposure : Skin contact
Species : Guinea pig
Result : negative

# 4-Nonylphenol, branched, ethoxylated:

Test Type : Human repeat insult patch test (HRIPT)

Routes of exposure : Skin contact Result : negative

Remarks : Based on data from similar materials

Amitraz (ISO):

Test Type : Maximization Test

Routes of exposure : Dermal Species : Guinea pig

Result : Not a skin sensitizer.

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

Test Type : Maximization Test



# **Amitraz (5%) Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

Routes of exposure : Skin contact Species : Guinea pig

Method : OECD Test Guideline 406

Result : negative

Germ cell mutagenicity

May cause genetic defects.

**Components:** 

Solvent naphtha (petroleum), light aromatic:

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

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Result: positive

Genotoxicity in vivo : Test Type: Sister chromatid exchange analysis in spermato-

gonia

Species: Mouse

Application Route: Intraperitoneal injection

Result: positive

Germ cell mutagenicity -

Assessment

Positive result(s) from in vivo heritable germ cell mutagenicity

tests in mammals

4-Nonylphenol, branched, ethoxylated:

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

Result: negative

Test Type: DNA damage and repair, unscheduled DNA syn-

thesis in mammalian cells (in vitro)

Result: negative

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 syn-

thesis 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



# Amitraz (5%) Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

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

May cause cancer.

#### **Components:**

## Solvent naphtha (petroleum), light aromatic:

Species : Mouse
Application Route : Skin contact
Exposure time : 2 Years
Result : positive

Carcinogenicity - Assess-

ment

: Sufficient evidence of carcinogenicity in animal experiments

#### 4-Nonylphenol, branched, ethoxylated:

Species : Rat
Application Route : Ingestion
Exposure time : 2 Years
Result : negative

Remarks : Based on data from similar materials

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.

# **Components:**

# Solvent naphtha (petroleum), light aromatic:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening

test

Species: Rat

Application Route: inhalation (vapor)



# **Amitraz (5%) Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

Result: negative

Effects on fetal development : Test Type: Embryo-fetal development

Species: Rat

Application Route: inhalation (vapor)

Result: negative

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.

Bis(2,6-diisopropylphenyl)carbodiimide:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening

test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 421

Result: positive

Test Type: Fertility Species: Rat

Application Route: Ingestion

Result: positive

Effects on fetal development : Test Type: Reproduction/Developmental toxicity screening

test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 421

Result: equivocal

Reproductive toxicity - As-

sessment

Clear evidence of adverse effects on sexual function and

fertility, based on animal experiments.

STOT-single exposure

May cause drowsiness or dizziness.



# Amitraz (5%) Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

#### **Components:**

#### Solvent naphtha (petroleum), light aromatic:

Assessment : May cause drowsiness or dizziness.

#### STOT-repeated exposure

Causes damage to organs (Kidney, Heart, Gastrointestinal tract, Lymph nodes) through prolonged or 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.

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

Routes of exposure : Ingestion

Target Organs : Kidney, Heart, Gastrointestinal tract, Lymph nodes

Assessment : Causes damage to organs through prolonged or repeated

exposure.

### Repeated dose toxicity

# **Components:**

#### Solvent naphtha (petroleum), light aromatic:

Species: RatLOAEL: 500 mg/kgApplication Route: IngestionExposure time: 28 Days

# 4-Nonylphenol, branched, ethoxylated:

Species : Rat

LOAEL : > 100 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

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



# Amitraz (5%) Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

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.

#### **Product:**

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.

#### Components:

## Solvent naphtha (petroleum), light aromatic:

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

## **SECTION 12. ECOLOGICAL INFORMATION**

## **Ecotoxicity**

#### **Components:**

#### Solvent naphtha (petroleum), light aromatic:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 8.2 mg/l

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): 4.5 mg/l

Exposure time: 48 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EL50 (Pseudokirchneriella subcapitata (microalgae)): 3.1 mg/l

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

NOELR (Pseudokirchneriella subcapitata (microalgae)): 0.5

mg/l



# **Amitraz (5%) Formulation**

Version Revision Date: SDS Number: Date of last issue: 04.04.2023 4.1 30.09.2023 1829211-00014 Date of first issue: 11.07.2017

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

NOELR (Daphnia magna (Water flea)): 2.6 mg/l

Exposure time: 21 d

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 211

4-Nonylphenol, branched, 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 tox-

icity)

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 (Chron-

ic toxicity)

NOEC (Mysidopsis bahia (opossum shrimp)): > 0.001 - 0.01

Exposure time: 28 d

Remarks: Based on data from similar materials

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

mg/l Exposure time: 91 h

Toxicity to fish (Chronic tox-

icity)

NOEC (Pimephales promelas (fathead minnow)): 0.00148

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.04

Exposure time: 32 d



# Amitraz (5%) Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.0011 mg/l

Exposure time: 21 d

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:** 

Solvent naphtha (petroleum), light aromatic:

Biodegradability : Result: Inherently biodegradable.

Biodegradation: 94 % Exposure time: 25 d

4-Nonylphenol, branched, 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

**Bioaccumulative potential** 

**Components:** 

4-Nonylphenol, branched, ethoxylated:

Partition coefficient: n- : log Pow: < 4



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octanol/water

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 environ-

mental compartments

: log Koc: 3.3

Other adverse effects

No data available

#### **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.

Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or

death.

If not otherwise specified: Dispose of as unused product.

#### **SECTION 14. TRANSPORT INFORMATION**

# International Regulations

**UNRTDG** 

UN number : UN 3295

Proper shipping name : HYDROCARBONS, LIQUID, N.O.S.

Class : 3
Packing group : III
Labels : 3
Environmentally hazardous : no

**IATA-DGR** 

UN/ID No. : UN 3295

Proper shipping name : Hydrocarbons, liquid, n.o.s.

Class : 3



# Amitraz (5%) Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 4.1
 30.09.2023
 1829211-00014
 Date of first issue: 11.07.2017

Packing group : III

Labels : Flammable Liquids

Packing instruction (cargo : 366

aircraft)

Packing instruction (passen: 355

ger aircraft)

**IMDG-Code** 

UN number : UN 3295

Proper shipping name : HYDROCARBONS, LIQUID, N.O.S.

yes

(Amitraz (ISO))

Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-D

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

Marine pollutant

UN number : UN 3295

Proper shipping name : HYDROCARBONS, LIQUID, N.O.S.

Class : 3
Packing group : III
Labels : 3

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 : 30.09.2023



# Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.04.2023 4.1 30.09.2023 1829211-00014 Date of first issue: 11.07.2017

Date format dd.mm.yyyy

Full text of other abbreviations

**ACGIH** USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA 8-hour, time-weighted average

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

Sources of key data used to compile the Material Safety

eChem Portal search results and European Chemicals Agen-Data Sheet cy, http://echa.europa.eu/

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.

Internal technical data, data from raw material SDSs, OECD

MX / Z8