according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Amitraz (5%) Formulation

Manufacturer or supplier's details

Company : MSD

Address : No. 485 Jing Tai Road

Pu Tuo District - Shanghai - China 200331

Telephone : +1-908-740-4000

Emergency telephone number : 86-571-87268110

E-mail address : EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product Restrictions on use : Not applicable

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance : liquid Colour : yellow

Odour : characteristic, aromatic, hydrocarbon-like

Flammable liquid and vapour. May be harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. May damage fertility. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

GHS Classification

Flammable liquids : Category 3

Acute toxicity (Oral) : Category 5

Skin corrosion/irritation : Category 2

Serious eye damage/eye irri-

tation

Category 2A

Germ cell mutagenicity : Category 1B

Carcinogenicity : Category 1B

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

Reproductive toxicity : Category 1B

Specific target organ toxicity -

single exposure

Category 3

Specific target organ toxicity - :

repeated exposure

Category 2

Aspiration hazard : Category 1

Short-term (acute) aquatic

hazard

Category 1

Long-term (chronic) aquatic

hazard

Category 1

GHS label elements

Hazard pictograms









Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.

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.

H373 May cause damage to organs through prolonged or re-

peated exposure.

H410 Very toxic to aquatic life with long lasting effects.

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/ sparks/ open flames/ hot surfaces.

No smoking.

P233 Keep container tightly closed.

P241 Use explosion-proof electrical/ ventilating/ lighting equip-

ment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe mist or vapours. P264 Wash skin thoroughly after handling.

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

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

P273 Avoid release to the environment.

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

Response:

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

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor 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/ doctor 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

P391 Collect spillage.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

Disposal:

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

Physical and chemical hazards

Flammable liquid and vapour.

Health hazards

May be harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause genetic defects. May cause cancer. May damage fertility. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways.

Environmental hazards

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Other hazards which do not result in classification

Vapours may form explosive mixture with air.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

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	>= 2.5 -< 10	
Bis(2,6-diisopropylphenyl)carbodiimide	2162-74-5	>= 1 -< 2.5	

Alternative CAS Numbers for some regions

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

4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical ad-

vice 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 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.

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

May be harmful if swallowed.

May be fatal if swallowed and enters airways. Causes skin irritation.

Causes serious eye irritation.

May cause drowsiness or dizziness. May cause genetic defects.

May cause cancer.
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

4/23

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

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

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

fire.

Flash back possible over considerable distance. Vapours may form explosive mixtures with air.

Exposure to combustion products may be a hazard to health.

Hazardous combustion prod: :

ucts

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

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 emer-

gency procedures

Remove all sources of ignition.

Use personal protective equipment.

Follow safe handling advice (see section 7) and personal pro-

tective 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/vapours/mists with a water

spray jet.

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 absor-

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

bent.

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 deter-

mine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

7. HANDLING AND STORAGE

Handling

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 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 as-

sessment

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.

Avoidance of contact : Oxidizing agents

Storage

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.

Keep away from heat and sources of ignition.

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

Self-reactive substances and mixtures

Organic peroxides
Oxidizing agents
Flammable gases
Pyrophoric liquids
Pyrophoric solids

Self-heating substances and mixtures

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

Poisonous gases Explosives

Packaging material : Unsuitable material: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components 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 ²	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 con-

tainment devices).
Minimize open handling.

Use explosion-proof electrical, ventilating and lighting equip-

ment.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or expo-

sure assessment demonstrates exposures outside the rec-

ommended guidelines, use respiratory protection. Combined particulates and organic vapour type

Filter type : Combined particulates and organic vapour type Eye/face 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, dis-

posable suits) to avoid exposed skin surfaces.

Use appropriate degowning techniques to remove potentially

contaminated clothing.

Hand protection

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

Material : Chemical-resistant gloves

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

mable, which may impact the selection of hand protection.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the work-

ing place.

When using do not eat, drink or smoke. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : yellow

Odour : characteristic, aromatic, hydrocarbon-like

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : Not applicable

Initial boiling point and boiling

range

No data available

Flash point : 53 °C

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)

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

Density : No data available

Solubility(ies)

Water solubility : emulsifiable

Partition coefficient: n-

octanol/water

No data available

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 : Not applicable

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 reac-

tions

Flammable liquid and vapour.
Vapours 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 : No ha

products

No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Exposure routes : 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

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

Components:

Solvent naphtha (petroleum), light aromatic:

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

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

Exposure time: 4 h
Test atmosphere: vapour

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

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

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

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.

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 sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Solvent naphtha (petroleum), light aromatic:

Test Type : Buehler Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

4-Nonylphenol, branched, ethoxylated:

Test Type : Human repeat insult patch test (HRIPT)

Exposure routes : Skin contact 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

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

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

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

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 Skin contact2 Years Application Route Exposure time Result : positive

ment

Carcinogenicity - Assess- : Sufficient evidence of carcinogenicity in animal experiments

4-Nonylphenol, branched, ethoxylated:

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

Based on data from similar materials Remarks

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

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 (vapour)

Result: negative

Effects on foetal develop: Test Type: Embryo-foetal development

ment

Species: Rat

Application Route: inhalation (vapour)

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 foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rat

Application Route: Oral

Developmental Toxicity: NOAEL: 3 mg/kg body weight Remarks: No significant adverse effects were reported

Test Type: Embryo-foetal development

Species: Rabbit Application Route: Oral

Developmental Toxicity: NOAEL: 5 mg/kg body weight

Result: Effects on foetal development

Bis(2,6-diisopropylphenyl)carbodiimide:

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

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 foetal develop-

ment

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 fertil-

ity, based on animal experiments.

STOT - single exposure

May cause drowsiness or dizziness.

Components:

Solvent naphtha (petroleum), light aromatic:

Assessment : May cause drowsiness or dizziness.

STOT - repeated exposure

May cause damage to organs 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.

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

Repeated dose toxicity

Components:

Solvent naphtha (petroleum), light aromatic:

Species : Rat
LOAEL : 500 mg/kg
Application Route : Ingestion
Exposure 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: MouseNOAEL: 3 mg/kgApplication Route: OralExposure time: 90 DaysTarget Organs: Liver

Species : Dog
NOAEL : 0.25 mg/kg
Application Route : Oral
Exposure time : 90 Days

Target Organs : Central nervous system, Liver

Bis(2,6-diisopropylphenyl)carbodiimide:

Species: RatNOAEL: 4 mg/kgLOAEL: 16 mg/kgApplication Route: IngestionExposure 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.

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

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

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

ic toxicity)

: 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

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Toxicity to daphnia and other : aquatic invertebrates (Chron-

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

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

aquatic invertebrates

Toxicity to daphnia and other : 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

M-Factor (Acute aquatic tox- : 1

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

mg/l

Exposure time: 28 d

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

Exposure time: 96 h

Toxicity to daphnia and other:

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.035 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.04

Exposure time: 91 h

M-Factor (Acute aquatic tox- :

Toxicity to fish (Chronic tox-

icity)

NOEC (Pimephales promelas (fathead minnow)): 0.00148

Exposure time: 32 d

Toxicity to daphnia and other: aquatic invertebrates (Chron-

ic toxicity)

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

Exposure time: 21 d

M-Factor (Chronic aquatic

toxicity)

10

18 / 23

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

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

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

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

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 han-

dling 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.

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

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

UN/ID No. : UN 3295

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

Class : 3 Packing group : III

Labels : Flammable Liquids

Packing instruction (cargo

aircraft)

Packing instruction (passen: 355

ger aircraft)

IMDG-Code

UN number : UN 3295

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

366

(amitraz (ISO))

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

GB 6944/12268

UN number : UN 3295

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

Class : 3
Packing group : III
Labels : 3
Marine pollutant : no

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

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals : Listed

Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)

No. / Code Chemical name / Category Threshold quantity

W5.4 Flammable liquids 5,000 t
Hazardous Chemicals for Priority Management under : Listed

SAWS

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals Not listed

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import : Not listed

and Export

Regulation on the Administration of Precursor Chemicals

Catalogue and Classification of Precursor Chemicals : Not listed

Yangtze River Protection Law

This product does not contain any dangerous chemicals prohibited for inland river transport.

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 2024/09/28

Further information

Sources of key data used to

compile the Safety Data

Sheet

Internal technical data, data from raw material SDSs, OECD

eChem Portal search results and European Chemicals Agen-

cy, 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 yyyy/mm/dd

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

according to GB/T 16483 and GB/T 17519



Amitraz (5%) Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/04/06 4.0 2024/09/28 1829229-00017 Date of first issue: 2017/07/11

- 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

Disclaimer

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

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