



MATERIAL SAFETY DATA SHEET AMANDA

IDENTIFICATION OF THE SUPPLIER:

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PRODUCT IDENTIFICATION :

Common Name: Thiamethoxam + Chlorantraniliprole

Trade Name: AMANDA

Chemical Name:

Thiamethoxam : 3-(2-chloro-1,3-thiazol-5ylmethyl)-5-methyl-1,3,5-oxadiazinan-4 ylidene(nitro)amine

Chlorantraniliprole: 3-bromo-N-(4-chloro-2-methyl-6-[[[(methylamino)carboxyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide

Chemical Formula:

Thiamethoxam: C₈H₁₀ClN₅O₃S

Chlorantraniliprole: C₁₈H₁₄BrCl₂N₅O₂

Molecular Weight:

Thiamethoxam: 291.7

Chlorantraniliprole: 483.2

PRODUCT COMPOSITION:

Contents	CAS#	Amount in %w/v
Chlorantraniliprole (a.i)	500008-45-7	10
Thiamethoxam (a.i)	153719-23-4	20
Inert materials	--	Up to 1 L





HAZARDS IDENTIFICATION:

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture.

GHS label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

Other hazards

None known.

FIRST AID MEASURES:

General advice:

Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.

If inhaled:

Take the victim into fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Keep patient warm and at rest.

Call a physician or poison control center immediately.

In case of skin contact:

Take off all contaminated clothing immediately.

Wash off immediately with plenty of water.

If skin irritation persists, call a physician.

Wash contaminated clothing before re-use.

In case of eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Remove contact lenses.

Immediate medical attention is required.

If swallowed:

If swallowed, seek medical advice immediately and show this container or label.

Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed:

Nonspecific

No symptoms known or expected.





Notes to physician: There is no specific antidote available. Treat symptomatically

FIRE FLGHTING MESURES:

Suitable extinguishing media:

Extinguishing media - small fires

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media - large fires

Alcohol-resistant foam or

Water spray

Unsuitable extinguishing media:

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

Specific hazards during firefighting:

As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion (see section 10).

Exposure to decomposition products may be a hazard to health.

Further information:

Do not allow run-off from firefighting to enter drains or water courses.

Cool closed containers exposed to fire with water spray.

Special protective equipment for fire-fighters:

Wear full protective clothing and self-contained breathing apparatus.

ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures:

Refer to protective measures listed in sections 7 and 8.

Environmental precautions:

Prevent further leakage or spillage if safe to do so.

Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up:

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Clean contaminated surface thoroughly.

Clean with detergents. Avoid solvents.





Retain and dispose of contaminated wash water.

EXPOSURE CONTROLS/ PERSONAL PROTECTION:

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
thiamethoxam	153719-23-4	TWA	5 mg/m ³	Syngenta
chlorantraniliprole	500008-45-7	TWA	5 mg/m ³	Syngenta
		TWA	10 mg/m ³ (Total dust)	Supplier
		TWA	5 mg/m ³ (Respirable dust)	Supplier
propane-1,2-diol	57-55-6	TWA	10 mg/m ³	US WEEL

Engineering measures:

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

Maintain air concentrations below occupational exposure standards.

Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Respiratory protection:

No personal respiratory protective equipment normally required.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Remarks:

Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things from the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if





there is any indication of degradation or chemical breakthrough.

Eye protection:

No special protective equipment required.

Skin and body protection:

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Remove and wash contaminated clothing before re-use.

Wear as appropriate:

Impervious clothing

Protective measures:

The use of technical measures should always have priority over the use of personal protective equipment.

When selecting personal protective equipment, seek appropriate professional advice.

HANDLING AND STORAGE :

Advice on safe handling:

No special protective measures against fire required.

Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

For personal protection see section 8.

Conditions for safe storag:

No special storage conditions required.

Keep containers tightly closed in a dry, cool and well-ventilated place.

Keep out of the reach of children.

Keep away from food, drink and animal feedingstuffs

STABILITY AND REACTIVITY:

Reactivity:

None reasonably foreseeable.

Chemical stability:

Stable under normal conditions.

Possibility of hazardous reac-tions:

No dangerous reaction known under conditions of normal use.

Conditions to avoid:

No decomposition if used as directed.

Incompatible materials:



None known.

Hazardous decomposition products:

No hazardous decomposition products are known

PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: liquid

Color: beige

Odor: No data available

Odor Threshold: No data available

pH: 5.0 Concentration: 1 % w/v

Melting point/range: No data available

Boiling point/boiling range: No data available

Flash point: Method: Pensky-Martens closed cup
does not flash

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper explosion limit / Upper flammability limit: No data available

Lower explosion limit / Lower flammability limit: No data available

Vapor pressure: No data available

Solubility(ies) Water solubility: No data available

Solubility in other solvents: No data available

Partition coefficient: n-octanol/water: No data available

Autoignition temperature: 1148 °F / 620 °C

Decomposition temperature: No data available

Viscosity Viscosity, dynamic: 600 mPa.s (68 °F / 20 °C)

Viscosity, kinematic: No data available

Explosive properties: Not explosive

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

Particle size: No data available

TOXICOLOGICAL INFORMATION:

Information on likely routes of exposure

Ingestion Inhalation Skin contact Eye contact

Acute toxicity

Product:



Acute oral toxicity:

LD50 (Rat, female): > 5,000 mg/kg

Remarks: Based on data from similar materials

Acute inhalation toxicity:

LC50 (Rat, male and female): > 5.62 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Remarks: Based on data from similar materials

Acute dermal toxicity:

LD50 (Rat, male and female): > 5,000 mg/kg

Remarks: Based on data from similar materials

Components:

thiamethoxam:

Acute oral toxicity:

LD50 (Rat, male and female): 1,563 mg/kg

Acute inhalation toxicity:

LC50 (Rat, male and female): > 3.72 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity:

LD50 (Rat, male and female): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal toxicity

chlorantraniliprole:

Acute oral toxicity:

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

Acute inhalation toxicity:

LC50 (Rat): > 5.1 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity:

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

Skin corrosion/irritation

Product:

Species:

Rabbit:

No skin irritation

Remarks:



Based on data from similar materials

Components:

thiamethoxam:

Species:

Rabbit

Result: No skin irritation

chlorantraniliprole:

Species:

Rabbit

Result:

No skin irritation

Serious eye damage/eye irritation

Product:

Species:

Rabbit

Result:

No eye irritation

Remarks:

Based on data from similar materials

Components:

thiamethoxam:

Species:

Rabbit

Result:

No eye irritation

chlorantraniliprole:

Species:

Rabbit

Result:

No eye irritation

poly(oxy-1,2-ethanediyl), alpha-phosphono-omega-[2,4,6-tris(1-phenylethyl)phenoxy]-:

Result:

Eye irritation

Respiratory or skin sensitization

Product:

Species:

Guinea pig

Result:

Did not cause sensitization on laboratory animals.



Remarks:

Based on data from similar materials

Components:

thiamethoxam:

Species:

Guinea pig

Result:

Did not cause sensitization on laboratory animals.

chlorantraniliprole:

Species:

Guinea pig

Result:

Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

Components:

thiamethoxam:

Germ cell mutagenicity - Assessment:

Animal testing did not show any mutagenic effects.

chlorantraniliprole:

Germ cell mutagenicity - Assessment:

Animal testing did not show any mutagenic effects.

Carcinogenicity

Components:

thiamethoxam:

Carcinogenicity - Assessment:

Weight of evidence does not support classification as a carcinogen

chlorantraniliprole:

Carcinogenicity - Assessment:

No evidence of carcinogenicity in animal studies.

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.



Reproductive toxicity

Components:

thiamethoxam:

Reproductive toxicity - Assessment:

Weight of evidence does not support classification for reproductive toxicity

chlorantraniliprole:

Reproductive toxicity - Assessment:

No toxicity to reproduction

STOT-single exposure

Components:

thiamethoxam:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

chlorantraniliprole:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

Components:

thiamethoxam:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

chlorantraniliprole:

Assessment:

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Components: chlorantraniliprole:

No aspiration toxicity classification

ECOLOGICAL INFORMATION:

Ecotoxicity

Product:

Toxicity to fish:

LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

Exposure time: 96 h

Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates:



EC50 (*Daphnia magna* (Water flea)): 0.0012 mg/l

Exposure time: 48 h

Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants:

ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 100 mg/l

Exposure time: 72 h

Remarks: Based on data from similar materials

EC10 (*Raphidocelis subcapitata* (freshwater green alga)): 45 mg/l

End point: Growth rate

Exposure time: 72 h

Remarks: Based on data from similar materials

NOEC (*Raphidocelis subcapitata* (freshwater green alga)): 3.2 mg/l

End point: Growth rate

Exposure time: 72 h

Remarks: Based on data from similar materials

Components:

thiamethoxam:

Toxicity to fish:

LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 (*Daphnia magna* (Water flea)): > 100 mg/l

Exposure time: 48 h

EC50 (*Cloeon* sp.): 0.014 mg/l

Exposure time: 48 h

EC50 (*Chironomus riparius* (harlequin fly)): 0.035 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic plants

:

ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): > 81.8 mg/l

Exposure time: 72 h

NOEC (*Raphidocelis subcapitata* (freshwater green alga)): 81.8 mg/l

End point: Growth rate

Exposure time: 72 h

Toxicity to fish (Chronic tox-icity)

:

NOEC (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l

Exposure time: 28 d

Test Type: flow-through test



NOEC (Oncorhynchus mykiss (rainbow trout)): > 20 mg/l
Exposure time: 88 d
Test Type: Early-life Stage
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
:
NOEC (Daphnia magna (Water flea)): 100 mg/l
Exposure time: 21 d
NOEC (Chironomus riparius (Midge larvae)): 0.01 mg/l
Exposure time: 30 d
Toxicity to microorganisms
:
EC50 (activated sludge): > 100 mg/l
Exposure time: 3 h
chlorantraniliprole:
Toxicity to fish
:
LC50 (Oncorhynchus mykiss (rainbow trout)): > 13.8 mg/l
Exposure time: 96 h
LC50 (Lepomis macrochirus (Bluegill sunfish)): > 15.1 mg/l
Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates
:
EC50 (Daphnia magna (Water flea)): 0.0116 mg/l
Exposure time: 48 h
Toxicity to algae/aquatic plants
:
ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 2 mg/l
Exposure time: 96 h
Toxicity to fish (Chronic toxicity)
:
NOEC (Oncorhynchus mykiss (rainbow trout)): 0.11 mg/l
Exposure time: 90 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
:
NOEC (Daphnia magna (Water flea)): 0.00447 mg/l
Exposure time: 21 d
NOEC (Chironomus riparius (harlequin fly)): 0.0025 mg/l
Exposure time: 28 d

Persistence and degradability



Components:

thiamethoxam:

Biodegradability

:

Result: Not readily biodegradable.

Stability in water

:

Degradation half life: 11 d

Remarks: Product is not persistent.

chlorantraniliprole:

Biodegradability

:

Result: Not readily biodegradable.

Bioaccumulative potential

Components:

thiamethoxam:

Bioaccumulation

:

Remarks: Low bioaccumulation potential.

Partition coefficient: n-octanol/water

:

log Pow: -0.13 (77 °F / 25 °C)

chlorantraniliprole:

Bioaccumulation

:

Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water

:

log Pow: 2.76 (68 °F / 20 °C)

Mobility in soil

Components:

thiamethoxam:

Distribution among environ-mental compartments

:

Remarks: Moderately mobile in soils

Stability in soil

:

Dissipation time: 51 d

Percentage dissipation: 50 % (DT50)

Remarks: Product is not persistent.



chlorantraniliprole:

Distribution among environ-mental compartments

:

Remarks: immobile

Stability in soil

:

Dissipation time: 530 d

Percentage dissipation: 50 (DT50)

Remarks: Persistent in soil.

Other adverse effects

Components:

thiamethoxam:

Results of PBT and vPvB assessment

:

This substance is not considered to be persistent, bioaccumu-lating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

chlorantraniliprole:

Results of PBT and vPvB assessment

:

This substance is not considered to be persistent, bioaccumu-lating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

DISPOSAL CONSIDERATION:

Disposal methods

Waste from residues:

Do not contaminate ponds, waterways or ditches with chemical or used container.

Do not dispose of waste into sewer.

Where possible recycling is preferred to disposal or incineration.

If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging:

Empty remaining contents.





Triple rinse containers.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Do not re-use empty containers.

TRANSPORT INFORMATION:

International Regulations

UNRTDG

UN number:

UN 3082

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.

(THIAMETHOXAM, CHLORANTRANILIPROLE)

Class:

9

Packing group:

III

Labels:

9

IATA-DGR

UN/ID No.:

UN 3082

Proper shipping name:

Environmentally hazardous substance, liquid, n.o.s.

(THIAMETHOXAM, CHLORANTRANILIPROLE)

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.

(THIAMETHOXAM, CHLORANTRANILIPROLE)

Class:

9

Packing group:

III

Labels:

9

EmS Code:

F-A, S-F

Marine pollutant:

yes