according to the OSHA Hazard Communication Standard



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SECTION 1. IDENTIFICATION

Product name : ADAGE ST Design code : A22718A

Product Registration number : 100-1283

Manufacturer or supplier's details

Company name of supplier : Syngenta Crop Protection, LLC

Address : Post Office Box 18300 Greensboro NC 27419

United States of America (USA)

Telephone : 1 800 334 9481 Telefax : 1 336 632 2192

E-mail address : sds.requests@syngenta.com

Emergency telephone : 1 800 888 8372

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

Restrictions on use : General Use Pesticide

SECTION 2. HAZARDS IDENTIFICATION

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

Not a hazardous substance or mixture.

Other hazards

None known.

GHS label elements

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

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS No./Unique ID	Concentration (% w/w)	Trade secret
thiamethoxam (ISO)	153719-23-4*	21.5	-
(9Z,12Z,15Z)-octadeca- 9,12,15-trienoic acid	8001-26-1*	>= 5 - <= 10	TSC
propane-1,2-diol	57-55-6*	>= 5 - <= 10	TSC

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propane-1,2,3-triol	56-81-5*	>= 3 - <= 7	TSC
metalaxyl-M (ISO)	70630-17-0*	3.205	-
fludioxonil (ISO)	131341-86-1*	1.07	-
triethylamine	121-44-8*	<= 0.1	TSC

^{*} Indicates that the identifier is a CAS No.

SECTION 4. 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 respira-

tion.

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.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Extinguishing media - small fires

Use water spray, alcohol-resistant foam, dry chemical or car-

bon 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 fire

fighting

: As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous prod-

ucts of combustion (see section 10).

Exposure to decomposition products may be a hazard to

TSC- the actual concentration or concentration range is withheld as a trade secret

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health.

Hazardous combustion prod-

ucts

Carbon oxides

Nitrogen oxides (NOx) Chlorine compounds

Sulfur oxides

Fluorine compounds

Further information : Do not allow run-off from fire fighting 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 ap-

paratus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- :

tive equipment and emer-

gency 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.

SECTION 7. 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 storage : 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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type	Control parame-	Basis
		(Form of	ters / Permissible	
		exposure)	concentration	

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thiamethoxam (ISO)	153719-23-4	TWA	5 mg/m3	Syngenta
(9Z,12Z,15Z)-octadeca- 9,12,15-trienoic acid	8001-26-1	TWA (mist - total)	10 mg/m3	NIOSH REL
		TWA (mist - respirable)	5 mg/m3	NIOSH REL
propane-1,2-diol	57-55-6	TWA	10 mg/m3	US WEEL
propane-1,2,3-triol	56-81-5	TWA (mist, respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (mist, total dust)	15 mg/m3	OSHA Z-1
		TWA (Mist - total dust)	10 mg/m3	OSHA P0
		TWA (Mist - respirable fraction)	5 mg/m3	OSHA P0
metalaxyl-M (ISO)	70630-17-0	TWA	5 mg/m3	Syngenta
fludioxonil (ISO)	131341-86-1	TWA	5 mg/m3	Syngenta
		TWA (Inhalable particulate matter)	1 mg/m3	ACGIH
triethylamine	121-44-8	TWA	0.5 ppm	ACGIH
		STEL	1 ppm	ACGIH
		TWA	25 ppm 100 mg/m3	OSHA Z-1
		STEL	15 ppm 60 mg/m3	OSHA P0
		TWA	10 ppm 40 mg/m3	OSHA P0

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 re-

quired.

When workers are facing concentrations above the exposure

limit they must use appropriate certified respirators.

Hand protection

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Remarks : No special protective equipment required. Eye protection : No special protective equipment required. Skin and body protection : No special protective equipment required.

Select skin and body protection based on the physical job

requirements.

Protective measures : The use of technical measures should always have priority

over the use of personal protective equipment.

When selecting personal protective equipment, seek appro-

priate professional advice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : tan

Odor : No data available

Odor Threshold : No data available

pH : 5.5

Concentration: 1 %w/v

Melting point/freezing point : No data available

Initial boiling point and boiling

range

No data available

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : 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

Relative vapor density : No data available

Density : 1.11 g/cm3 (68 °F / 20 °C)

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

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Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

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

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

Particle characteristics

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : None reasonably foreseeable.
Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-

tions

: No decomposition if used as directed.

Incompatible materials : None known.

Hazardous decomposition : N

products

Conditions to avoid

No hazardous decomposition products are known.

No dangerous reaction known under conditions of normal use.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Ingestion Inhalation Skin contact Eye contact

Acute toxicity

Not classified due to lack of data.

Components:

thiamethoxam (ISO):

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 inhala-

tion toxicity

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

Assessment: The substance or mixture has no acute dermal

toxicity

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propane-1,2-diol:

Acute oral toxicity : LD50 (Rat): > 20,000 mg/kg

Assessment: The substance or mixture has no acute oral tox-

icity

Acute inhalation toxicity : LC50 (Rabbit): 317,042 mg/l

Exposure time: 2 h

Test atmosphere: dust/mist

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

Assessment: The substance or mixture has no acute dermal

toxicity

propane-1,2,3-triol:

Acute oral toxicity : LD50 (Rat, female): > 4,000 mg/kg

Assessment: The substance or mixture has no acute oral tox-

icity

Acute inhalation toxicity : LC50 (Rat, male): > 2.75 mg/l

Exposure time: 4 h
Test atmosphere: vapor

Assessment: The substance or mixture has no acute inhala-

tion toxicity

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

metalaxyl-M (ISO):

Acute oral toxicity : LD50 (Rat, female): 375 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.29 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Highest attainable concentration

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

Assessment: The substance or mixture has no acute dermal

toxicity

fludioxonil (ISO):

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

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.6 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

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

Assessment: The substance or mixture has no acute dermal

toxicity

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triethylamine:

Acute oral toxicity : Assessment: The component/mixture is toxic after single in-

gestion.

Acute inhalation toxicity : LC50 (Rat): 7.22 mg/l

Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rat): 580 mg/kg

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Product:

Species : Rabbit

Result : No skin irritation

Remarks : Based on data from similar materials

Components:

thiamethoxam (ISO):

Species : Rabbit

Result : No skin irritation

propane-1,2-diol:

Result : No skin irritation

propane-1,2,3-triol:

Species : Rabbit

Result : No skin irritation

metalaxyl-M (ISO):

Species : Rabbit

Result : No skin irritation

fludioxonil (ISO):

Species : Rabbit

Result : No skin irritation

triethylamine:

Species : Rabbit

Result : Corrosive after 3 minutes or less of exposure

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Product:

Species : Rabbit

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Result : No eye irritation

Remarks : Based on data from similar materials

Components:

thiamethoxam (ISO):

Species : Rabbit

Result : No eye irritation

propane-1,2-diol:

Result : No eye irritation

propane-1,2,3-triol:

Species : Rabbit

Result : No eye irritation

metalaxyl-M (ISO):

Species : Rabbit

Result : Risk of serious damage to eyes.

fludioxonil (ISO):

Species : Rabbit

Result : No eye irritation

triethylamine:

Result : Risk of serious damage to eyes.

Respiratory or skin sensitization

Skin sensitization

Not classified due to lack of data.

Respiratory sensitization

Not classified due to lack of data.

Components:

thiamethoxam (ISO):

Species : Guinea pig

Result : Does not cause skin sensitization.

propane-1,2-diol:

Result : Does not cause skin sensitization.

propane-1,2,3-triol:

Species : Guinea pig

Result : Not a skin sensitizer.

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metalaxyl-M (ISO):

Species : Guinea pig

Result : Does not cause skin sensitization.

fludioxonil (ISO):

Species : Guinea pig

Result : Does not cause skin sensitization.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

thiamethoxam (ISO):

Germ cell mutagenicity -

Animal testing did not show any mutagenic effects.

Assessment

propane-1,2-diol:

Germ cell mutagenicity -

Assessment

Animal testing did not show any mutagenic effects.

propane-1,2,3-triol:

Germ cell mutagenicity -

Assessment

In vitro tests did not show mutagenic effects

metalaxyl-M (ISO):

Germ cell mutagenicity -

Assessment

Animal testing did not show any mutagenic effects.

fludioxonil (ISO):

Germ cell mutagenicity -

Assessment

Animal testing did not show any mutagenic effects.

triethylamine:

Germ cell mutagenicity -

Assessment

In vitro tests did not show mutagenic effects

Carcinogenicity

Not classified due to lack of data.

Components:

thiamethoxam (ISO):

Carcinogenicity - Assess-

ment

Weight of evidence does not support classification as a car-

cinogen

propane-1,2-diol:

Carcinogenicity - Assess-

ment

No evidence of carcinogenicity in animal studies.

propane-1,2,3-triol:

Carcinogenicity - Assess-

ment

No evidence of carcinogenicity in animal studies.

metalaxyl-M (ISO):

Carcinogenicity - Assess- : No evidence of carcinogenicity in animal studies.

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ment

fludioxonil (ISO):

Carcinogenicity - Assess-

ment

No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Not classified due to lack of data.

Components:

thiamethoxam (ISO):

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

propane-1,2-diol:

Reproductive toxicity - As-

sessment

No toxicity to reproduction, No effects on or via lactation

propane-1,2,3-triol:

Reproductive toxicity - As-

sessment

No toxicity to reproduction, No effects on or via lactation

metalaxyl-M (ISO):

Reproductive toxicity - As-

sessment

No toxicity to reproduction

fludioxonil (ISO):

Reproductive toxicity - As-

sessment

No toxicity to reproduction

triethylamine:

Reproductive toxicity - As-

sessment

No toxicity to reproduction

STOT-single exposure

Not classified due to lack of data.

Components:

thiamethoxam (ISO):

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

propane-1,2-diol:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

triethylamine:

Assessment : The substance or mixture is classified as specific target organ

toxicant, single exposure, category 3 with respiratory tract

irritation.

STOT-repeated exposure

Not classified due to lack of data.

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Components:

thiamethoxam (ISO):

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

propane-1,2-diol:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

propane-1,2,3-triol:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

metalaxyl-M (ISO):

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

fludioxonil (ISO):

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Aspiration toxicity

Not classified due to lack of data.

Components:

propane-1,2-diol:

No aspiration toxicity classification

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

thiamethoxam (ISO):

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

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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 (Chron-

ic 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

propane-1,2-diol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l

Exposure time: 96 h Test Type: static test

Toxicity to daphnia and other :

aquatic invertebrates

(Ceriodaphnia dubia (water flea)): 18,340 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)):

19,000 mg/l

Exposure time: 96 h

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC (Ceriodaphnia dubia (Water flea)): 13,020 mg/l

Exposure time: 7 d

Test Type: semi-static test

metalaxyl-M (ISO):

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

Exposure time: 96 h

LC50 (Cyprinus carpio (Carp)): > 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

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)):

271 mg/l

Exposure time: 96 h

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NOEC (Raphidocelis subcapitata (freshwater green alga)):

19.7 mg/l

End point: Growth rate Exposure time: 96 h

Toxicity to fish (Chronic tox-

icity)

NOEC (Oncorhynchus mykiss (rainbow trout)): 50 mg/l

Exposure time: 28 d

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 25 mg/l

Exposure time: 21 d

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l

Exposure time: 3 h

fludioxonil (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.23 mg/l

Exposure time: 96 h

LC50 (Pimephales promelas (fathead minnow)): 0.7 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.4 mg/l

Exposure time: 48 h

EC50 (Americamysis): 0.27 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)):

0.259 mg/l

Exposure time: 96 h

EC10 (Raphidocelis subcapitata (freshwater green alga)):

0.077 mg/l

End point: Growth rate Exposure time: 96 h

ErC50 (Skeletonema costatum (marine diatom)): 0.43 mg/l

Exposure time: 96 h

NOEC (Skeletonema costatum (marine diatom)): 0.14 mg/l

End point: Growth rate Exposure time: 96 h

Toxicity to fish (Chronic tox-

icity)

NOEC (Oncorhynchus mykiss (rainbow trout)): 0.04 mg/l

Exposure time: 28 d

EC10 (Pimephales promelas (fathead minnow)): 0.018 mg/l

Exposure time: 116 d

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

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

Exposure time: 21 d

NOEC (Americamysis): 0.018 mg/l

Exposure time: 28 d

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Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l

Exposure time: 3 h

triethylamine:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 36 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)): 9.8

mg/

Exposure time: 72 h

Persistence and degradability

Components:

thiamethoxam (ISO):

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 11 d

Remarks: Product is not persistent.

propane-1,2-diol:

Biodegradability : Result: Readily biodegradable.

metalaxyl-M (ISO):

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 22.4 - 47.5 d

Remarks: Product is not persistent.

fludioxonil (ISO):

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 450 - 700 d

Remarks: Persistent in water.

triethylamine:

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential

Components:

thiamethoxam (ISO):

Bioaccumulation : Remarks: Low bioaccumulation potential.

Partition coefficient: n-

octanol/water

log Pow: -0.13 (77 °F / 25 °C)

metalaxyl-M (ISO):

according to the OSHA Hazard Communication Standard



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Bioaccumulation : Remarks: Low bioaccumulation potential.

Partition coefficient: n-

octanol/water

: log Pow: 1.71 (77 °F / 25 °C)

fludioxonil (ISO):

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-

octanol/water

log Pow: 4.12 (77 °F / 25 °C)

Mobility in soil

Components:

thiamethoxam (ISO):

Distribution among environ-

mental compartments

_. _. .

Stability in soil

Dissipation time: 51 d Percentage dissipation: 50 % (DT50)

Remarks: Product is not persistent.

Remarks: Moderately mobile in soils

metalaxyl-M (ISO):

Distribution among environ-

mental compartments

Remarks: Highly mobile in soils

Stability in soil

: Dissipation time: < 50 d

Percentage dissipation: 50 % (DT50) Remarks: Product is not persistent.

fludioxonil (ISO):

Distribution among environ-

mental compartments Stability in soil Remarks: immobile

: Dissipation time: 14 d

Percentage dissipation: 50 % (DT50) Remarks: Product is not persistent.

Other adverse effects

Components:

thiamethoxam (ISO):

Results of PBT and vPvB

assessment

Substance is not persistent, bioaccumulative, and toxic (PBT).

metalaxyl-M (ISO):

Results of PBT and vPvB

assessment

Substance is not persistent, bioaccumulative, and toxic (PBT).

Remarks: Weight of evidence

Endocrine disrupting poten-

leit

Substance does not have endocrine disrupting properties.

Remarks: Weight of evidence

fludioxonil (ISO):

Results of PBT and vPvB

assessment

Substance is not persistent, bioaccumulative, and toxic (PBT).

Endocrine disrupting poten-

tial

Substance does not have endocrine disrupting properties.

triethylamine:

according to the OSHA Hazard Communication Standard



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Results of PBT and vPvB

assessment

Substance is not persistent, bioaccumulative, and toxic (PBT).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Do not dispose of waste into sewer.

Where possible recycling is preferred to disposal or incinera-

If recycling is not practicable, dispose of in compliance with

local regulations.

This product will not be classified as a RCRA characteristic

hazardous waste when discarded.

Contaminated packaging Empty remaining contents.

Triple rinse containers.

Empty containers should be taken to an approved waste han-

dling site for recycling or disposal. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number UN 3082

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(THIAMETHOXAM, FLUDIOXONIL)

Class 9 Ш Packing group 9 Labels

Environmentally hazardous yes

This product can be subject to exemptions when packaged in Remarks

single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a

net mass of 5 kg or less for solids.

IATA-DGR

UN/ID No. UN 3082

Proper shipping name Environmentally hazardous substance, liquid, n.o.s.

(THIAMETHOXAM, FLUDIOXONIL)

Class 9 Packing group Ш

Miscellaneous Labels 964

Packing instruction (cargo

aircraft)

Packing instruction (passen-

964

ger aircraft)

Environmentally hazardous yes

Remarks This product can be subject to exemptions when packaged in

single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a

according to the OSHA Hazard Communication Standard



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net mass of 5 kg or less for solids.

IMDG-Code

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(THIAMETHOXAM, FLUDIOXONIL)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Remarks : This product can be subject to exemptions when packaged in

single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a

net mass of 5 kg or less for solids.

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Remarks : Shipment by ground under DOT is non-regulated; however it

may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

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

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label: Caution

Harmful if swallowed.

Causes moderate eye irritation.

Avoid contact with skin, eyes or clothing.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

according to the OSHA Hazard Communication Standard



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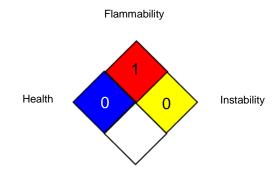
SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Special hazard

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA P0 : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated

values)

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)

ACGIH / TWA : 8-hour, time-weighted average ACGIH / STEL : Short-term exposure limit

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

OSHA P0 / TWA : 8-hour time weighted average
OSHA P0 / STEL : Short-term exposure limit
OSHA Z-1 / TWA : 8-hour time weighted average
Syngenta / TWA : Time weighted average

US WEEL / TWA : 8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely

according to the OSHA Hazard Communication Standard



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Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ -Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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

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

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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