DEMAND DUO

Version	Revision Date:	SDS Number:	This version replaces all previous versions.
1.0	06.09.2021	S00031136963	

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : DEMAND DUO

Design code : A18484C

Manufacturer or supplier's details

Company : Syngenta Asia Pacific Pte. Ltd

Address : No. 1 HarbourFront Avenue, #03-03 Keppel Bay Tower
Singapore 098632

Telephone : +65 6333 6400

Emergency telephone number : +60 376 283 812

Telefax : +65 6338 1256

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4

Skin sensitisation : Category 1

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

P261 Avoid breathing mist or vapours.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Disposal:

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

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
thiamethoxam (ISO)	153719-23-4	>= 10 -< 20
propane-1,2,3-triol	56-81-5	>= 1 -< 10
lambda-cyhalothrin (ISO)	91465-08-6	>= 2.5 -< 10
Hydrocarbons, C9, Aromatics	128601-23-0	>= 2.5 -< 10
lignosulfonic acid, ethoxylated, sodium salts	68611-14-3	>= 1 -< 10
ammonia	1336-21-6	>= 0.1 -< 0.25
1,2-benzisothiazol-3(2H)-one	2634-33-5	>= 0.05 -< 0.1
bronopol (INN)	52-51-7	>= 0.025 -< 0.1

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 : Move the victim to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control centre 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 : Aspiration may cause pulmonary oedema and pneumonitis.
Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours.

Notes to physician : Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.
Treat symptomatically.

5. FIREFIGHTING MEASURES

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 components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.

Specific extinguishing methods : 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 firefighters : Wear full protective clothing and self-contained breathing apparatus.

6. 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.

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
thiamethoxam (ISO)	153719-23-4	TWA	3 mg/m3	Syngenta
propane-1,2,3-triol	56-81-5	PEL (long term) (Mist)	10 mg/m3	SG OEL
lambda-cyhalothrin (ISO)	91465-08-6	TWA	0.04 mg/m3 (Skin)	Syngenta
Hydrocarbons, C9, Aromatics	128601-23-0	TWA	19 ppm 100 mg/m3	Supplier
ammonia	1336-21-6	PEL (long term)	25 ppm 17 mg/m3 (Ammonia)	SG OEL
		PEL (short term)	35 ppm 24 mg/m3 (Ammonia)	SG OEL
		TWA	25 ppm (Ammonia)	ACGIH
		STEL	35 ppm (Ammonia)	ACGIH

Engineering measures : 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		
Material	:	Nitrile rubber
Break through time	:	> 480 min
Glove thickness	:	0.5 mm
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 on 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	beige brown
Odour	:	aromatic, strong
Odour Threshold	:	No data available
pH	:	5.9 Concentration: 100 % 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
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Density	:	1.0775 g/ml (25 °C)
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	450 °C
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	599 mPa.s (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

10. STABILITY AND REACTIVITY

Reactivity	:	None reasonably foreseeable.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	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.

11. TOXICOLOGICAL INFORMATION

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

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, female): 1,750 mg/kg
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.52 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 (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 inhalation toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

lambda-cyhalothrin (ISO):

Acute oral toxicity : LD50 (Rat, female): 56 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): 0.06 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat, male): 632 mg/kg

Hydrocarbons, C9, Aromatics:

Acute oral toxicity : LD50 (Rat, female): 3,492 mg/kg

1,2-benzisothiazol-3(2H)-one:

Acute oral toxicity : LD50 (Rat, male): 670 mg/kg

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

bronopol (INN):

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

Acute dermal toxicity : Assessment: The component/mixture is moderately toxic after single contact with skin.

Skin corrosion/irritation

Product:

Species : Rabbit
Result : Mild skin irritation
Remarks : Based on data from similar materials

Components:

thiamethoxam (ISO):

Species : Rabbit
Result : No skin irritation

lambda-cyhalothrin (ISO):

Species : Rabbit
Result : No skin irritation
Remarks : May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia.

Hydrocarbons, C9, Aromatics:

Result : Repeated exposure may cause skin dryness or cracking.

Species : Rabbit
Result : Mild skin irritation

lignosulfonic acid, ethoxylated, sodium salts:

Result : Irritating to skin.

ammonia:

Result : Corrosive after 3 minutes to 1 hour of exposure

1,2-benzisothiazol-3(2H)-one:

Species : Rabbit
Result : Mild skin irritation

bronopol (INN):

Result : Irritating to skin.

Serious eye damage/eye irritation

Product:

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

Components:

thiamethoxam (ISO):

Species : Rabbit
Result : No eye irritation

lambda-cyhalothrin (ISO):

Species : Rabbit
Result : No eye irritation

lignosulfonic acid, ethoxylated, sodium salts:

Result : Eye irritation

1,2-benzisothiazol-3(2H)-one:

Species : Rabbit
Result : Risk of serious damage to eyes.

bronopol (INN):

Result : Risk of serious damage to eyes.

Respiratory or skin sensitisation

Product:

Test Type : Buehler Test
Species : Guinea pig
Result : Did not cause sensitisation on laboratory animals.
Remarks : Based on data from similar materials

: Humans
: Probability or evidence of skin sensitisation in humans

Components:

thiamethoxam (ISO):

Species	:	Guinea pig
Result	:	Did not cause sensitisation on laboratory animals.

lambda-cyhalothrin (ISO):

Test Type	:	Maximisation Test
Species	:	Guinea pig
Result	:	Does not cause skin sensitisation.
	:	Local lymph node assay (LLNA)
	:	Mouse
	:	Does not cause skin sensitisation.

1,2-benzisothiazol-3(2H)-one:

Result	:	Probability or evidence of skin sensitisation in humans

Germ cell mutagenicity

Components:

thiamethoxam (ISO):

Germ cell mutagenicity - Assessment	:	Animal testing did not show any mutagenic effects.

lambda-cyhalothrin (ISO):

Germ cell mutagenicity - Assessment	:	Animal testing did not show any mutagenic effects.

1,2-benzisothiazol-3(2H)-one:

Germ cell mutagenicity - Assessment	:	Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Components:

thiamethoxam (ISO):

Carcinogenicity - Assessment	:	Weight of evidence does not support classification as a carcinogen

lambda-cyhalothrin (ISO):

Carcinogenicity - Assessment	:	Weight of evidence does not support classification as a carcinogen

Reproductive toxicity

Components:

thiamethoxam (ISO):

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

lambda-cyhalothrin (ISO):

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

STOT - single exposure

Components:

thiamethoxam (ISO):

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

lambda-cyhalothrin (ISO):

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

Hydrocarbons, C9, Aromatics:

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.
The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

lignosulfonic acid, ethoxylated, sodium salts:

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

ammonia:

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

bronopol (INN):

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT - repeated exposure

Components:

thiamethoxam (ISO):

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

lambda-cyhalothrin (ISO):

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

Aspiration toxicity

Components:

Hydrocarbons, C9, Aromatics:

May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 0.112 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna Straus): 0.110 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 100 mg/l
Exposure time: 96 h

NOEC (Raphidocelis subcapitata (freshwater green alga)): 100 mg/l
Exposure time: 96 h

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 Exposure time: 72 h NOEC (Raphidocelis subcapitata (freshwater green alga)): 81.8 mg/l End point: Growth rate Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to fish (Chronic toxicity)	:	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
M-Factor (Chronic aquatic toxicity)	:	10
Toxicity to microorganisms	:	EC50 (activated sludge): > 100 mg/l Exposure time: 3 h

lambda-cyhalothrin (ISO):

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 0.000078 mg/l Exposure time: 96 h LC50 (Ictalurus punctatus (channel catfish)): 0.00016 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.00036 mg/l Exposure time: 48 h LC50 (Americamysis): 0.000007 mg/l Exposure time: 48 h EC50 (Hyalella azteca (Amphipod)): 0.000002 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 0.31 mg/l Exposure time: 96 h
M-Factor (Acute aquatic	:	100,000

toxicity)

Toxicity to fish (Chronic toxicity)	:	NOEC (Pimephales promelas (fathead minnow)): 0.000031 mg/l Exposure time: 300 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.000002 mg/l Exposure time: 21 d NOEC (Americamysis): 0.00022 µg/l Exposure time: 28 d
M-Factor (Chronic aquatic toxicity)	:	100,000
Toxicity to microorganisms	:	EC50 (activated sludge): > 100 mg/l Exposure time: 3 h

Hydrocarbons, C9, Aromatics:

Toxicity to fish	:	LL50 (Oncorhynchus mykiss (rainbow trout)): 9.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): 3.2 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Raphidocelis subcapitata (freshwater green alga)): 2.9 mg/l Exposure time: 72 h NOELR (Raphidocelis subcapitata (freshwater green alga)): 1.0 mg/l End point: Growth rate Exposure time: 72 h
Toxicity to fish (Chronic toxicity)	:	NOELR (Oncorhynchus mykiss (rainbow trout)): 1.228 mg/l Exposure time: 28 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOELR (Daphnia magna (Water flea)): 2.144 mg/l Exposure time: 21 d

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Toxic to aquatic life with long lasting effects.

ammonia:

Ecotoxicology Assessment

Acute aquatic toxicity	:	Very toxic to aquatic life.
Chronic aquatic toxicity	:	Toxic to aquatic life with long lasting effects.

1,2-benzisothiazol-3(2H)-one:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 2.18 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2.94 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.15 mg/l Exposure time: 72 h EC10 (Raphidocelis subcapitata (freshwater green alga)): 0.04 mg/l End point: Growth rate Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): 0.3 mg/l Exposure time: 28 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia (water flea)): 1.7 mg/l Exposure time: 21 d

bronopol (INN):

Toxicity to algae/aquatic plants	:	NOEC (algae): 0.0025 mg/l Exposure time: 72 h EC50 (algae): 0.068 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	1

Persistence and degradability

Components:

thiamethoxam (ISO):

Biodegradability	:	Result: Not readily biodegradable.
Stability in water	:	Degradation half life: 11 d Remarks: Product is not persistent.

lambda-cyhalothrin (ISO):

Biodegradability	:	Result: Not readily biodegradable.
Stability in water	:	Degradation half life (DT50): 7 d Remarks: Product is not persistent.

Hydrocarbons, C9, Aromatics:

Biodegradability	:	Result: Readily biodegradable.

1,2-benzisothiazol-3(2H)-one:

Biodegradability : Result: rapidly degradable

bronopol (INN):

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential

Components:

thiamethoxam (ISO):

Bioaccumulation : Remarks: Low bioaccumulation potential.

Partition coefficient: n-octanol/water : log Pow: -0.13 (25 °C)

lambda-cyhalothrin (ISO):

Bioaccumulation : Remarks: Bioaccumulates

1,2-benzisothiazol-3(2H)-one:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Mobility in soil

Components:

thiamethoxam (ISO):

Distribution among environmental compartments : Remarks: Moderately mobile in soils

Stability in soil : Dissipation time: 51 d
Percentage dissipation: 50 % (DT50)
Remarks: Product is not persistent.

lambda-cyhalothrin (ISO):

Distribution among environmental compartments : Remarks: immobile

Stability in soil : Dissipation time: 56 d
Percentage dissipation: 50 % (DT50)
Remarks: Product is not persistent.

Other adverse effects

Components:

thiamethoxam (ISO):

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

lambda-cyhalothrin (ISO):

Results of PBT and vPvB assessment	:	This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

1,2-benzisothiazol-3(2H)-one:

Results of PBT and vPvB assessment	:	This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

13. DISPOSAL CONSIDERATIONS

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.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LAMBDA-CYHALOTHRIN)
Class	:	9
Packing group	:	III
Labels	:	9

IATA-DGR

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

(passenger aircraft)
Environmentally hazardous : yes

IMDG-Code

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

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

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. REGULATORY INFORMATION

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

Workplace Safety and Health Act and Workplace Safety and Health (General Provisions) Regulations: This product is subjected to the SDS, labelling, PEL and other requirements in the Act/Regulations.

Environmental Protection and Management Act and Environmental Protection and Management (Hazardous Substances) Regulations	:	Neonicotinoid compounds used as pesticides
Fire Safety (Petroleum and Flammable Materials) Regulations	:	Not applicable

16. OTHER INFORMATION

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
SG OEL	:	Singapore. Workplace Safety and Health (General Provisions) Regulations - First Schedule Permissible Exposure Limits of Toxic Substances.
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
SG OEL / PEL (long term)	:	Permissible Exposure Level (PEL) Long Term

SG OEL / PEL (short term) : Permissible Exposure Level (PEL) Short Term

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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information 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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