

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
Date of first issue: 09.01.2017

Section 1: Identification

Product name : Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Manufacturer or supplier's details

Company : MSD

Address : 33 Whakatiki Street - Private Bag 908
Upper Hutt - New Zealand

Telephone : 0800 800 543

Emergency telephone number : 0800 764 766 (0800 POISON) 0800 243 622 (0800 CHEMCALL)

E-mail address : EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product

Restrictions on use : Not applicable

Section 2: Hazard identification

GHS Classification

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 3

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2

Carcinogenicity (Inhalation) : Category 2

Specific target organ toxicity - single exposure : Category 1 (Central nervous system)

Specific target organ toxicity - single exposure : Category 2 (Nervous system)

Hazardous to the aquatic environment - acute hazard : Category 1

Hazardous to the aquatic : Category 1

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
 Date of first issue: 09.01.2017

environment - chronic hazard

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H331 Toxic if inhaled.
 H351 Suspected of causing cancer if inhaled.
 H370 Causes damage to organs (Central nervous system).
 H371 May cause damage to organs (Nervous system).
 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.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

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.
 P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P391 Collect spillage.

Storage:

P405 Store locked up.

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
 Date of first issue: 09.01.2017

Disposal:

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

Other hazards which do not result in classification

None known.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Polyvinyl chloride	9002-86-2	>= 70 -< 90
Pirimiphos-methyl (ISO)	29232-93-7	>= 10 -< 20
lambda-cyhalothrin (ISO)	91465-08-6	>= 2.5 -< 10
Titanium dioxide	13463-67-7	>= 0.1 -< 1

Section 4: First-aid measures

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.
- If inhaled : If inhaled, remove to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
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 : If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.
Get medical attention.
Rinse mouth thoroughly with water.
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
Toxic if inhaled.
Suspected of causing cancer if inhaled.

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
7.0	18.09.2023	1204430-00017	Date of first issue: 09.01.2017

Protection of first-aiders : Causes damage to organs.
 : 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.

Section 5: Fire-fighting measures

Suitable extinguishing media : Water spray
 Alcohol-resistant foam
 Carbon dioxide (CO₂)
 Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides
 Nitrogen oxides (NO_x)
 Chlorine compounds
 Fluorine compounds

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances 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.

Hazchem Code : 2X

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
 Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.
 Prevent further leakage or spillage if safe to do so.
 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 : Surround spill with absorbents and place a damp covering over the area to minimise entry of the material into the air.
 Add excess liquid to allow the material to enter into solution.
 Soak up with inert absorbent material.
 Clean up remaining materials from spill with suitable absorbent.
 Local or national regulations may apply to releases and disposal of this material, as well as those materials and items

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
 Date of first issue: 09.01.2017

employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

Section 7: Handling and storage

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.
- Advice on safe handling : Do not get on skin or clothing.
 Do not breathe dust, fume, gas, mist, vapours or spray.
 Do not swallow.
 Do not get in eyes.
 Wash skin thoroughly after handling.
 Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
 Keep container tightly closed.
 Do not eat, drink or smoke when using this product.
 Take care to prevent spills, waste and minimize release to the environment.
- Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
 When using do not eat, drink or smoke.
 Wash contaminated clothing before re-use.
 The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Conditions for safe storage : Keep in properly labelled containers.
 Store locked up.
 Keep tightly closed.
 Keep in a cool, well-ventilated place.
 Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:
 Explosives

Section 8: Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Polyvinyl chloride	9002-86-2	TWA (Res-	1 mg/m3	ACGIH

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
Date of first issue: 09.01.2017

		pirable particulate matter)		
Pirimiphos-methyl (ISO)	29232-93-7	TWA	60 µg/m ³ (OEB 3)	Internal
	Further information: Skin			
		Wipe limit	600 µg/100 cm ²	Internal
lambda-cyhalothrin (ISO)	91465-08-6	TWA	5 µg/m ³ (OEB 4)	Internal
	Further information: Skin			
		Wipe limit	50 µg/100 cm ²	Internal
Titanium dioxide	13463-67-7	WES-TWA	10 mg/m ³	NZ OEL
		TWA (Respirable particulate matter)	2.5 mg/m ³ (Titanium dioxide)	ACGIH

Engineering measures : All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices).
Minimize open handling.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Particulates type

Hand protection

Material : Chemical-resistant gloves

Remarks : Consider double gloving.

Eye protection : Wear safety glasses with side shields or goggles. If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

Skin and body protection : Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.

Section 9: Physical and chemical properties

Appearance : solid

**Pirimiphos-Methyl / Lambda-Cyhalothrin For-
mulation**

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
7.0	18.09.2023	1204430-00017	Date of first issue: 09.01.2017

Colour	:	No data available
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not classified as a flammability hazard
Flammability (liquids)	:	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
Relative density	:	No data available
Density	:	No data available
Solubility(ies) Water solubility	:	insoluble
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

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
Date of first issue: 09.01.2017

Oxidizing properties : The substance or mixture is not classified as oxidizing.
Molecular weight : No data available
Particle size : No data available

Section 10: Stability and reactivity

Reactivity : Not classified as a reactivity hazard.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Can react with strong oxidizing agents.
Conditions to avoid : None known.
Incompatible materials : Oxidizing agents
Hazardous decomposition products : No hazardous decomposition products are known.

Section 11: Toxicological information

Exposure routes : Skin contact
Ingestion
Eye contact

Acute toxicity

Harmful if swallowed.
Toxic if inhaled.

Product:

Acute oral toxicity : Acute toxicity estimate: 654.55 mg/kg
Method: Calculation method
Acute inhalation toxicity : Acute toxicity estimate: 0.7676 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method
Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:

Pirimiphos-methyl (ISO):

Acute oral toxicity : LD50 (Rat): 1,180 mg/kg
LD50 (Rat): 2,400 - 5,976 mg/kg
LD50 (Mouse): > 575 mg/kg
LD50 (Dog): > 1,500 mg/kg

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
 Date of first issue: 09.01.2017

Acute inhalation toxicity : LC50 (Rat): > 5.04 mg/l
 Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): 2,000 mg/kg
 LD50 (Rat): > 4,592 mg/kg

lambda-cyhalothrin (ISO):

Acute oral toxicity : LD50 (Rat): 56 - 79 mg/kg
 LD50 (Mouse): 20 mg/kg

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

Acute dermal toxicity : LD50 (Rat): 632 - 696 mg/kg

Acute toxicity (other routes of administration) : LD50 (Rat): 250 - 750 mg/kg
 Application Route: Intraperitoneal

Titanium dioxide:

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

Acute inhalation toxicity : LC50 (Rat): > 6.82 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist
 Assessment: The substance or mixture has no acute inhalation toxicity

Skin corrosion/irritation

Causes skin irritation.

Components:

Pirimiphos-methyl (ISO):

Species : Rabbit
 Result : irritating

lambda-cyhalothrin (ISO):

Species : Rabbit
 Result : No skin irritation

Titanium dioxide:

Species : Rabbit
 Result : No skin irritation

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
Date of first issue: 09.01.2017

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Pirimiphos-methyl (ISO):

Species : Rabbit
Result : Mild eye irritation

lambda-cyhalothrin (ISO):

Species : Rabbit
Result : Mild eye irritation

Titanium dioxide:

Species : Rabbit
Result : No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Pirimiphos-methyl (ISO):

Test Type : Maximisation Test
Exposure routes : Dermal
Species : Guinea pig
Result : Not a skin sensitizer.

lambda-cyhalothrin (ISO):

Test Type : Magnusson-Kligman-Test
Exposure routes : Dermal
Species : Guinea pig
Result : Not a skin sensitizer.

Titanium dioxide:

Test Type : Local lymph node assay (LLNA)
Exposure routes : Skin contact
Species : Mouse
Result : negative

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
 Date of first issue: 09.01.2017

Chronic toxicity

Germ cell mutagenicity

Not classified based on available information.

Components:

Pirimiphos-methyl (ISO):

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: equivocal
		Test Type: sister chromatid exchange assay Result: positive
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Result: negative
		Test Type: Rodent dominant lethal test (germ cell) (in vivo) Species: Mouse Result: negative

lambda-cyhalothrin (ISO):

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
		Test Type: Chromosomal aberration Test system: Human lymphocytes Result: negative
		Test Type: unscheduled DNA synthesis assay Test system: rat hepatocytes Result: negative
		Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Cell type: Bone marrow Application Route: Intraperitoneal Result: negative

Titanium dioxide:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
 Date of first issue: 09.01.2017

Result: negative

Carcinogenicity

Suspected of causing cancer if inhaled.

Components:

Pirimiphos-methyl (ISO):

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

Species : Mouse
 Application Route : Oral
 Exposure time : 80 weeks
 Result : negative

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

lambda-cyhalothrin (ISO):

Species : Mouse
 Application Route : oral (feed)
 Exposure time : 2 Years
 Result : negative
 Remarks : Based on data from similar materials

Species : Rat
 Application Route : oral (feed)
 Exposure time : 2 Years
 Result : negative
 Remarks : Based on data from similar materials

Titanium dioxide:

Species : Rat
 Application Route : inhalation (dust/mist/fume)
 Exposure time : 2 Years
 Method : OECD Test Guideline 453
 Result : positive
 Remarks : The mechanism or mode of action may not be relevant in humans.

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in inhalation studies with animals.

Reproductive toxicity

Not classified based on available information.

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
 Date of first issue: 09.01.2017

Components:

Pirimiphos-methyl (ISO):

Effects on fertility : Test Type: Two-generation reproduction toxicity study
 Species: Rat
 Application Route: Oral
 Fertility: NOAEL: 15.4 mg/kg body weight
 Result: No effects on fertility

Effects on foetal development : Test Type: Development
 Species: Rat
 Application Route: Oral
 Developmental Toxicity: NOAEL: 150 mg/kg body weight
 Result: No effects on early embryonic development
 Remarks: Maternal toxicity observed.

Test Type: Development
 Species: Rabbit
 Application Route: Oral
 Developmental Toxicity: NOAEL: 48 mg/kg body weight
 Result: No effects on early embryonic development
 Remarks: Maternal toxicity observed.

lambda-cyhalothrin (ISO):

Effects on fertility : Test Type: Three-generation study
 Species: Rat
 Application Route: oral (feed)
 General Toxicity - Parent: NOAEL: 2 mg/kg body weight
 General Toxicity F1: LOAEL: 6.7 mg/kg body weight
 Symptoms: Reduced offspring weight gain
 Result: No effects on fertility
 Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Development
 Species: Rat
 Application Route: Oral
 General Toxicity Maternal: NOAEL: 10 mg/kg body weight
 Developmental Toxicity: LOAEL: 15 mg/kg body weight
 Result: No effects on foetal development, Reduced maternal body weight gain, Reduced foetal weight
 Remarks: Based on data from similar materials

Test Type: Development
 Species: Rabbit
 Application Route: Oral
 General Toxicity Maternal: NOAEL: 10 mg/kg body weight
 Developmental Toxicity: NOAEL: 30 mg/kg body weight
 Result: No effects on foetal development, Reduced maternal body weight gain, Reduced foetal weight
 Remarks: Based on data from similar materials

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
 Date of first issue: 09.01.2017

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STOT - single exposure

Causes damage to organs (Central nervous system).
 May cause damage to organs (Nervous system).

Components:

Pirimiphos-methyl (ISO):

|| Target Organs : Central nervous system
 || Assessment : Causes damage to organs.

lambda-cyhalothrin (ISO):

|| Target Organs : Nervous system
 || Assessment : Causes damage to organs.

STOT - repeated exposure

Not classified based on available information.

Components:

Pirimiphos-methyl (ISO):

|| Remarks : Not classified due to inconclusive data.

Repeated dose toxicity

Components:

Pirimiphos-methyl (ISO):

|| Species : Rat
 || NOAEL : 0.5 mg/kg
 || LOAEL : 2.5 mg/kg
 || Application Route : Oral
 || Exposure time : 28 d
 || Target Organs : Central nervous system
 || Symptoms : cholinesterase inhibition

|| Species : Dog
 || LOAEL : 2 mg/kg
 || Application Route : Oral
 || Exposure time : 13 Weeks
 || Target Organs : Central nervous system
 || Symptoms : cholinesterase inhibition

|| Species : Rat
 || NOAEL : 25 mg/kg
 || Application Route : Oral
 || Exposure time : 90 d
 || Target Organs : Central nervous system
 || Symptoms : cholinesterase inhibition

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
 Date of first issue: 09.01.2017

Remarks : No significant adverse effects were reported

Species : Dog
 LOAEL : 0.5 mg/kg
 Application Route : Oral
 Exposure time : 2 yr
 Target Organs : Central nervous system
 Symptoms : cholinesterase inhibition

Species : Rat
 LOAEL : 2.1 mg/kg
 Application Route : Oral
 Exposure time : 2 yr
 Target Organs : Central nervous system
 Symptoms : cholinesterase inhibition

lambda-cyhalothrin (ISO):

Species : Dog
 NOAEL : 2.5 mg/kg
 LOAEL : 12.5 mg/kg
 Application Route : oral (feed)
 Exposure time : 90 d
 Symptoms : reduced body weight gain, reduced food consumption

Species : Rat
 NOAEL : 10 mg/kg
 LOAEL : 50 mg/kg
 Application Route : Dermal
 Exposure time : 21 d
 Target Organs : Nervous system

Species : Rat
 NOAEL : 0.08 mg/kg
 LOAEL : 0.9 mg/kg
 Application Route : Inhalation
 Exposure time : 21 d
 Target Organs : Nervous system

Species : Dog
 NOAEL : 0.1 mg/kg
 LOAEL : 0.5 mg/kg
 Application Route : Oral
 Exposure time : 1 yr
 Target Organs : Nervous system
 Symptoms : Gastrointestinal disturbance, Vomiting, Convulsions, ataxia, Liver effects

Titanium dioxide:

Species : Rat

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
7.0	18.09.2023	1204430-00017	Date of first issue: 09.01.2017

NOAEL	:	24,000 mg/kg
Application Route	:	Ingestion
Exposure time	:	28 Days
Species	:	Rat
NOAEL	:	10 mg/m ³
Application Route	:	inhalation (dust/mist/fume)
Exposure time	:	2 yr

Aspiration toxicity

Not classified based on available information.

Experience with human exposure

Components:

Pirimiphos-methyl (ISO):

Ingestion	:	Symptoms: Nausea, Vomiting, Dizziness, confusion, Head-ache, Weakness, stomach discomfort, Blurred vision, muscle twitching
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lambda-cyhalothrin (ISO):

Inhalation	:	Symptoms: Cough, Local irritation, sneezing
Skin contact	:	Symptoms: Skin irritation, tingling, superficial burning sensation, Local irritation Remarks: Can be absorbed through skin.
Eye contact	:	Symptoms: Eye irritation
Ingestion	:	Symptoms: Gastrointestinal disturbance

Section 12: Ecological information

Ecotoxicity

Components:

Pirimiphos-methyl (ISO):

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.2 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.00021 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	:	1,000

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
 Date of first issue: 09.01.2017

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.13 mg/l
 Exposure time: 35 d
 Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.00011 mg/l
 Exposure time: 21 d
 Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 100

lambda-cyhalothrin (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.00019 mg/l
 Exposure time: 96 h
 Method: OECD Test Guideline 203
 Remarks: Based on data from similar materials

LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.00021 mg/l
 Exposure time: 96 h
 Method: OECD Test Guideline 203
 Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.00004 mg/l
 Exposure time: 48 h
 Method: OECD Test Guideline 202
 Remarks: Based on data from similar materials

M-Factor (Acute aquatic toxicity) : 10,000

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.000062 mg/l
 Exposure time: 32 d
 Method: OECD Test Guideline 210
 Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.0035 µg/l
 Exposure time: 21 d
 Method: OECD Test Guideline 211
 Remarks: Based on data from similar materials

M-Factor (Chronic aquatic toxicity) : 10,000

Titanium dioxide:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
 Exposure time: 96 h
 Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
 Exposure time: 48 h

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
7.0	18.09.2023	1204430-00017	Date of first issue: 09.01.2017

Toxicity to algae/aquatic plants	:	EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l Exposure time: 72 h
Toxicity to microorganisms	:	EC50: > 1,000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

Persistence and degradability

Components:

Pirimiphos-methyl (ISO):

Stability in water	:	Hydrolysis: 50 %(117 d)
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Bioaccumulative potential

Components:

Pirimiphos-methyl (ISO):

Partition coefficient: n-octanol/water	:	log Pow: 4.2
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lambda-cyhalothrin (ISO):

Bioaccumulation	:	Bioconcentration factor (BCF): 2,240 Method: OECD Test Guideline 305
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Partition coefficient: n-octanol/water	:	log Pow: 7.0 (20 °C)
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Mobility in soil

Components:

lambda-cyhalothrin (ISO):

Distribution among environmental compartments	:	log Koc: 5.5
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Other adverse effects

No data available

Section 13: Disposal considerations

Disposal methods

Waste from residues	:	Do not dispose of waste into sewer. Dispose of in accordance with local regulations.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

Pirimiphos-Methyl / Lambda-Cyhalothrin For- mulation

Version 7.0 Revision Date: 18.09.2023 SDS Number: 1204430-00017 Date of last issue: 04.04.2023
Date of first issue: 09.01.2017

Section 14: Transport information

International Regulations

UNRTDG

UN number : UN 2811
Proper shipping name : TOXIC SOLID, ORGANIC, N.O.S.
|| (lambda-cyhalothrin (ISO), Pirimiphos-methyl (ISO))
Class : 6.1
Packing group : III
Labels : 6.1
Environmentally hazardous : yes

IATA-DGR

UN/ID No. : UN 2811
Proper shipping name : Toxic solid, organic, n.o.s.
|| (lambda-cyhalothrin (ISO), Pirimiphos-methyl (ISO))
Class : 6.1
Packing group : III
Labels : Toxic
Packing instruction (cargo : 677
aircraft)
Packing instruction (passen- : 670
ger aircraft)

IMDG-Code

UN number : UN 2811
|| Proper shipping name : TOXIC SOLID, ORGANIC, N.O.S.
(lambda-cyhalothrin (ISO), Pirimiphos-methyl (ISO))
Class : 6.1
Packing group : III
Labels : 6.1
EmS Code : F-A, S-A
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

NZS 5433

UN number : UN 2811
Proper shipping name : TOXIC SOLID, ORGANIC, N.O.S.
|| (lambda-cyhalothrin (ISO), Pirimiphos-methyl (ISO))
Class : 6.1
Packing group : III
Labels : 6.1
Hazchem Code : 2X
Marine pollutant : yes

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
7.0	18.09.2023	1204430-00017	Date of first issue: 09.01.2017

Special precautions for user

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

Section 15: Regulatory information

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

HSNO Approval Number

HSR100759 Veterinary Medicines Non dispersive Open System Application Group Standard

HSW Controls

Certified handler certificate not required.

Tracking hazardous substance not required.

Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further information.

The components of this product are reported in the following inventories:

AICS : not determined

DSL : not determined

IECSC : not determined

Section 16: Other information

Revision Date : 18.09.2023

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 Agency, <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 : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

NZ OEL : New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

ACGIH / TWA : 8-hour, time-weighted average

NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

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