SAFETY DATA SHEET

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version 3.3  Revision Date: 10.10.2020  SDS Number: 1204526-00010  Date of last issue: 23.03.2020
Date of first issue: 09.01.2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Manufacturer or supplier’s details
Company: MSD
Address: Talcahuano 750, 6th floor, Ciudad Autonoma Buenos Aires, Argentina C1013AAP
Telephone: 908-740-4000
Emergency telephone: 1-908-423-6000
E-mail address: EHSDATASTEWARD@msd.com
Telefax: 908-735-1496

Recommended use of the chemical and restrictions on use
Recommended use: Veterinary product

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity (Oral): Category 4
Acute toxicity (Inhalation): Category 3
Acute toxicity (Dermal): Category 5
Skin irritation: Category 2
Eye irritation: Category 2B
Specific target organ toxicity - single exposure: Category 1 (Central nervous system)
Specific target organ toxicity - single exposure: Category 2 (Nervous system)
Short-term (acute) aquatic hazard: Category 1
Long-term (chronic) aquatic hazard: Category 1
GHS label elements
Hazard pictograms

Signal Word
: Danger

Hazard Statements
: H302 Harmful if swallowed.
H313 May be harmful in contact with skin.
H315 + H320 Causes skin and eye irritation.
H331 Toxic 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:
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ 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.
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.
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.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Storage:
P405 Store locked up.

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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyvinyl chloride</td>
<td>9002-86-2</td>
<td>&gt;= 70 - &lt; 90</td>
</tr>
<tr>
<td>Pirimiphos-methyl (ISO)</td>
<td>29232-93-7</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Lambda-cyhalothrin (ISO)</td>
<td>91465-08-6</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>&gt;= 0,1 - &lt; 1</td>
</tr>
</tbody>
</table>

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. May be harmful in contact with skin. Causes skin and eye irritation. Toxic if inhaled. Causes damage to organs.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

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 :  
\begin{itemize}  
\item Carbon oxides  
\item Nitrogen oxides (NOx)  
\item Chlorine compounds  
\item Fluorine compounds  
\end{itemize}  
 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 fire-fighters : Use personal protective equipment.  

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 : Sweep up or vacuum up spillage and collect in suitable container for disposal.  
 Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to 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, vapors or spray.  
 Do not swallow.  
 Do not get in eyes.  
 Wash skin thoroughly after handling.
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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.

Conditions for safe storage:
- Keep in properly labeled 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:
  - Strong oxidizing agents
  - Organic peroxides
  - Explosives
  - Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyvinyl chloride</td>
<td>9002-86-2</td>
<td>TWA (Respirable particulate matter)</td>
<td>1 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Pirimiphos-methyl (ISO)</td>
<td>29232-93-7</td>
<td>TWA</td>
<td>60 µg/m³ (OEB 3)</td>
<td>Internal</td>
</tr>
<tr>
<td>Further information: Skin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wipe limit</td>
<td>600 µg/100 cm²</td>
<td>Internal</td>
</tr>
<tr>
<td>lambda-cyhalothrin (ISO)</td>
<td>91465-08-6</td>
<td>TWA</td>
<td>5 µg/m³ (OEB 4)</td>
<td>Internal</td>
</tr>
<tr>
<td>Further information: Skin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wipe limit</td>
<td>50 µg/100 cm²</td>
<td>Internal</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>CMP</td>
<td>10 mg/m³</td>
<td>AR OEL</td>
</tr>
<tr>
<td>Further information: A4 - Not classifiable as a human carcinogen, lung</td>
<td></td>
<td>TWA</td>
<td>10 mg/m³ (Titanium dioxide)</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>
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.

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: solid

Color: No data available

Odor: characteristic

Odor 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
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<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>SDS Number:</th>
<th>Date of last issue:</th>
<th>Date of first issue:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3</td>
<td>10.10.2020</td>
<td>1204526-00010</td>
<td>23.03.2020</td>
<td>09.01.2017</td>
</tr>
</tbody>
</table>

- **Flammability (liquids):** 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
- **Relative density:** No data available
- **Density:** No data available
- **Solubility(ies):**
  - **Water solubility:** insoluble
- **Partition coefficient: n-octanol/water:** No data available
- **Autoignition temperature:** No data available
- **Decomposition temperature:** No data available
- **Viscosity:**
  - **Viscosity, kinematic:** No data available
- **Explosive properties:** Not explosive
- **Oxidizing properties:** The substance or mixture is not classified as oxidizing.
- **Molecular weight:** 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**

- **Information on likely routes of exposure:** Skin contact, Ingestion, Eye contact
Acute toxicity
Harmful if swallowed. 
May be harmful in contact with skin. 
Toxic if inhaled. 

**Product:**

- **Acute oral toxicity:** 
  - Acute toxicity estimate: 654.55 mg/kg 
  - Method: Calculation method

- **Acute inhalation toxicity:** 
  - Acute toxicity estimate: 0.7505 mg/l 
  - Exposure time: 4 h 
  - Test atmosphere: dust/mist 
  - Method: Calculation method

- **Acute dermal toxicity:** 
  - Acute toxicity estimate: 4.964 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
  - **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
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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

Serious eye damage/eye irritation
Causes 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 sensitization

Skin sensitization
Not classified based on available information.

Respiratory sensitization
Not classified based on available information.
Components:

**Pirimiphos-methyl (ISO):**
- Test Type: Maximization Test
- Routes of exposure: Dermal
- Species: Guinea pig
- Result: Not a skin sensitizer.

**lambda-cyhalothrin (ISO):**
- Test Type: Magnusson-Kligman-Test
- Routes of exposure: Dermal
- Species: Guinea pig
- Result: Not a skin sensitizer.

**Titanium dioxide:**
- Test Type: Local lymph node assay (LLNA)
- Routes of exposure: Skin contact
- Species: Mouse
- Result: negative

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:**

: Test Type: Bacterial reverse mutation assay (AMES)
  Result: negative

: Test Type: In vivo micronucleus test
  Species: Mouse
  Result: negative

**Carcinogenicity**

Not classified based on available information.

**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.

Components:

Pirimiphos-methyl (ISO):
Effects on fertility:
Species: Rat
Application Route: Oral
Fertility: NOAEL: 15.4 mg/kg body weight
Result: No effects on fertility.

Effects on fetal 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.

lambda-cyhalothrin (ISO):
Effects on fertility:
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 fetal 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 fetal development, Reduced maternal body weight gain, Reduced fetal 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 fetal development, Reduced maternal body weight gain, Reduced fetal weight.
Remarks: Based on data from similar materials

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

<table>
<thead>
<tr>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Weeks</td>
<td></td>
</tr>
<tr>
<td>90 d</td>
<td></td>
</tr>
<tr>
<td>2 y</td>
<td></td>
</tr>
<tr>
<td>90 d</td>
<td></td>
</tr>
<tr>
<td>21 d</td>
<td></td>
</tr>
<tr>
<td>21 d</td>
<td></td>
</tr>
</tbody>
</table>

### Target Organ

- Central nervous system

### Symptoms

- Cholinesterase inhibition

### Remarks

- No significant adverse effects were reported

### Species

- Rat
- Dog

### Application Route

- Oral
- Oral (feed)
- Dermal

### NOAEL

- 25 mg/kg
- 2,1 mg/kg
- 10 mg/kg
- 0,08 mg/kg
- 0,1 mg/kg

### LOAEL

- 12,5 mg/kg
- 12,5 mg/kg
- 50 mg/kg
- 0,9 mg/kg
- 0,5 mg/kg

### Symptoms

- Reduced body weight gain, reduced food consumption

### Species (ISO)

- Rat
- Dog
Target Organs : Nervous system
Symptoms : Gastrointestinal disturbance, Vomiting, Convulsions, ataxia, Liver effects

Titanium dioxide:
Species : Rat
NOAEL : 24.000 mg/kg
Application Route : Ingestion
Exposure time : 28 Days
Species : Rat
NOAEL : 10 mg/m³
Application Route : inhalation (dust/mist/fume)
Exposure time : 2 y

Aspiration toxicity
Not classified based on available information.

Experience with human exposure

Components:

Pirimiphos-methyl (ISO):
Ingestion : Symptoms: Nausea, Vomiting, Dizziness, confusion, Headache, Weakness, stomach discomfort, Blurred vision, muscle twitching

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

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
M-Factor (Acute aquatic toxicity): 1.000
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
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:
Polyvinyl chloride: Biodegradability: Result: Not readily biodegradable.

Pirimiphos-methyl (ISO):
Stability in water: Hydrolysis: 50 % (117 d)

Bioaccumulative potential

Components:
Pirimiphos-methyl (ISO):
Partition coefficient: n-octanol/water: log Pow: 4,2

Lambda-cyhalothrin (ISO):
Bioaccumulation: Bioconcentration factor (BCF): 2.240, Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water: log Pow: 7,0 (20 °C)

Mobility in soil

Components:
Lambda-cyhalothrin (ISO):
Distribution among environmental compartments: log Koc: 5,5

Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: 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.
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

**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 aircraft): 677
- Packing instruction (passenger aircraft): 670

**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.

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

Argentina. Carcinogenic Substances and Agents Registry: Not applicable

Control of precursors and essential chemicals for the preparation of drugs: Not applicable
International Regulations

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

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>AICS</td>
<td>not determined</td>
</tr>
<tr>
<td>DSL</td>
<td>not determined</td>
</tr>
<tr>
<td>IECSC</td>
<td>not determined</td>
</tr>
</tbody>
</table>

SECTION 16. OTHER INFORMATION

Further information

Full text of other abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td>AR OEL</td>
<td>Argentina. Occupational Exposure Limits</td>
</tr>
<tr>
<td>ACGIH / TWA</td>
<td>8-hour, time-weighted average</td>
</tr>
<tr>
<td>AR OEL / CMP</td>
<td>TLV (Threshold Limit Value)</td>
</tr>
</tbody>
</table>

All abbreviations are defined in the full text of other abbreviations section.
SAFETY DATA SHEET

Pirimiphos-Methyl / Lambda-Cyhalothrin Formulation

Version    Revision Date:    SDS Number:    Date of last issue: 23.03.2020
3.3        10.10.2020        1204526-00010    Date of first issue: 09.01.2017

- 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.

AR / Z8