

## Pirimiphos-Methyl Formulation

Version            Revision Date:            SDS Number:            Date of last issue: 04/09/2022  
2.9                10/01/2022              1356598-00015        Date of first issue: 02/24/2017

---

### SECTION 1. IDENTIFICATION

Product name                    : Pirimiphos-Methyl Formulation  
Other means of identification : No data available

#### Manufacturer or supplier's details

Company name of supplier    : Merck & Co., Inc  
Address                         : 126 E. Lincoln Avenue  
                                      : Rahway, New Jersey U.S.A. 07065  
Telephone                      : 908-740-4000  
Emergency telephone         : 1-908-423-6000  
E-mail address                 : EHSDATASTEWARD@merck.com

#### Recommended use of the chemical and restrictions on use

Recommended use              : Veterinary product  
  
Restrictions on use             : Not applicable


---

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with the Hazardous Products Regulations

Skin irritation                 : Category 2  
  
Eye irritation                  : Category 2B  
  
Carcinogenicity (Inhalation) : Category 2  
  
Specific target organ toxicity : Category 1 (Central nervous system)  
- single exposure

#### GHS label elements

Hazard pictograms            : 

Signal Word                    : Danger

Hazard Statements            : H315 + H320 Causes skin and eye irritation.  
                                      : H351 Suspected of causing cancer if inhaled.  
                                      : H370 Causes damage to organs (Central nervous system).

Precautionary Statements   : **Prevention:**  
                                      : P201 Obtain special instructions before use.  
                                      : P202 Do not handle until all safety precautions have been read and understood.  
                                      : P260 Do not breathe dust, fume, gas, mist, vapors or spray.  
                                      : P264 Wash skin thoroughly after handling.  
                                      : P270 Do not eat, drink or smoke when using this product.  
                                      : P280 Wear protective gloves, protective clothing, eye protection and face protection.

---

## Pirimiphos-Methyl Formulation

Version 2.9      Revision Date: 10/01/2022      SDS Number: 1356598-00015      Date of last issue: 04/09/2022  
 Date of first issue: 02/24/2017

### Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.  
 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 doctor.  
 P332 + P313 If skin irritation occurs: Get medical attention.  
 P337 + P313 If eye irritation persists: Get medical attention.  
 P362 + P364 Take off contaminated clothing and wash it before reuse.

### Storage:

P405 Store locked up.

### Disposal:

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

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

| Chemical name           | Common Name/Synonym   | CAS-No.    | Concentration (% w/w) |
|-------------------------|---|------------|-----------------------|
| Polyvinyl chloride      | Ethene, chloro-, homopolymer  | 9002-86-2  | $\geq 60 - < 80$ *    |
| Pirimiphos-methyl (ISO) | O-(2-diethylamino-6-methylpyrimidin-4-yl) O,O-dimethyl phosphorothioate | 29232-93-7 | $\geq 10 - < 30$ *    |
| Titanium dioxide        | Titanic anhydride   | 13463-67-7 | $\geq 0.1 - < 1$ *    |

\* Actual concentration or concentration range is withheld as a trade secret

## 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.  
 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.  
 Get medical attention.

## Pirimiphos-Methyl Formulation

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

---

- |   |   |  |
|---|---|--|
| 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.<br>Get medical attention.<br>Wash clothing before reuse.<br>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.<br>If easy to do, remove contact lens, if worn.<br>Get medical attention.   |
| If swallowed  | : | If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.<br>Get medical attention.<br>Rinse mouth thoroughly with water.<br>Never give anything by mouth to an unconscious person.                            |
| Most important symptoms and effects, both acute and delayed | : | Causes skin and eye irritation.<br>Suspected of causing cancer if inhaled.<br>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<br>Alcohol-resistant foam<br>Carbon dioxide (CO <sub>2</sub> )<br>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<br>Chlorine compounds   |
| Specific extinguishing methods                 | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Use water spray to cool unopened containers.<br>Remove undamaged containers from fire area if it is safe to do so.<br>Evacuate area. |
| Special protective equipment for fire-fighters | : | In the event of fire, wear self-contained breathing apparatus.<br>Use personal protective equipment.  |
- 

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- |   |   |  |
|---|---|--|
| Personal precautions, protective equipment and emergency procedures | : | Use personal protective equipment.<br>Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).   |
| Environmental precautions   | : | Avoid release to the environment.<br>Prevent further leakage or spillage if safe to do so.<br>Retain and dispose of contaminated wash water.<br>Local authorities should be advised if significant spillages |

## Pirimiphos-Methyl Formulation

Version 2.9      Revision Date: 10/01/2022      SDS Number: 1356598-00015      Date of last issue: 04/09/2022  
 Date of first issue: 02/24/2017

cannot be contained.

Methods and materials for containment and cleaning up : Surround spill with absorbents and place a damp covering over the area to minimize 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 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 : Use only with adequate 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.  
 Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
 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.  
 Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:  
 Strong oxidizing agents  
 Self-reactive substances and mixtures  
 Organic peroxides  
 Explosives  
 Gases

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

| Components         | CAS-No.   | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis     |
|--------------------|-----------|-------------------------------|--|-----------|
| Polyvinyl chloride | 9002-86-2 | TWA (Respirable)              | 1 mg/m <sup>3</sup>                            | CA BC OEL |
|                    |           | TWA (Respirable particulate)  | 1 mg/m <sup>3</sup>                            | ACGIH     |

## Pirimiphos-Methyl Formulation

Version 2.9      Revision Date: 10/01/2022      SDS Number: 1356598-00015      Date of last issue: 04/09/2022  
 Date of first issue: 02/24/2017

|                         |                           |                                     |  |           |
|-------------------------|---------------------------|-------------------------------------|--|-----------|
|                         |                           | matter)                             |  |           |
| Pirimiphos-methyl (ISO) | 29232-93-7                | TWA                                 | 60 µg/m <sup>3</sup> (OEB 3)             | Internal  |
|                         | Further information: Skin |                                     |  |           |
|                         |                           | Wipe limit                          | 600 µg/100 cm <sup>2</sup>               | Internal  |
| Titanium dioxide        | 13463-67-7                | TWA                                 | 10 mg/m <sup>3</sup>                     | CA AB OEL |
|                         |                           | TWA (Total dust)                    | 10 mg/m <sup>3</sup>                     | CA BC OEL |
|                         |                           | TWA (respirable dust fraction)      | 3 mg/m <sup>3</sup>                      | CA BC OEL |
|                         |                           | TWAEV (total dust)                  | 10 mg/m <sup>3</sup>                     | CA QC OEL |
|                         |                           | TWA (Respirable particulate matter) | 2.5 mg/m <sup>3</sup> (Titanium dioxide) | ACGIH     |
|                         |                           | TWA (Respirable particulate matter) | 0.2 mg/m <sup>3</sup> (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.

**Hygiene measures** : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the

## Pirimiphos-Methyl Formulation

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

---

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  | : | yellow                                  |
| 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 |
| 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                       |

**Pirimiphos-Methyl Formulation**

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

---

|                           |   |  |
|---------------------------|---|--|
| 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**

Not classified based on available information.

**Product:**

|                           |   |   |
|---------------------------|---|---|
| Acute oral toxicity       | : | Acute toxicity estimate: > 2,000 mg/kg<br>Method: Calculation method  |
| Acute inhalation toxicity | : | Acute toxicity estimate: > 5 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: Calculation method |
| Acute dermal toxicity     | : | Acute toxicity estimate: > 2,000 mg/kg<br>Method: Calculation method  |

**Components:****Pirimiphos-methyl (ISO):**

|                     |   |  |
|---------------------|---|--|
| Acute oral toxicity | : | LD50 (Rat): 1,180 mg/kg<br><br>LD50 (Rat): 2,400 - 5,976 mg/kg |
|---------------------|---|--|

## Pirimiphos-Methyl Formulation

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

---

LD50 (Mouse): &gt; 575 mg/kg

LD50 (Dog): &gt; 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

### 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

#### 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

#### Titanium dioxide:

Species : Rabbit  
Result : No eye irritation

### Respiratory or skin sensitization

#### Skin sensitization

Not classified based on available information.



## Pirimiphos-Methyl Formulation

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

---

### 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. |

##### **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   |

##### **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                                     |
|                       |   | Result: negative                                   |

### Carcinogenicity

Suspected of causing cancer if inhaled.

#### Components:

##### **Pirimiphos-methyl (ISO):**

|                   |   |      |
|-------------------|---|------|
| Species           | : | Rat  |
| Application Route | : | Oral |

## Pirimiphos-Methyl Formulation

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

---

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.

### **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 : 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 fetal 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.

### **STOT-single exposure**

Causes damage to organs (Central nervous system).

## Pirimiphos-Methyl Formulation

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

---

### Components:

#### **Pirimiphos-methyl (ISO):**

Target Organs : Central 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  
 Remarks : No significant adverse effects were reported

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

Species : Rat  
 LOAEL : 2.1 mg/kg  
 Application Route : Oral  
 Exposure time : 2 y  
 Target Organs : Central nervous system

## Pirimiphos-Methyl Formulation

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

---

Symptoms : cholinesterase inhibition

### Titanium dioxide:

Species : Rat  
 NOAEL : 24,000 mg/kg  
 Application Route : Ingestion  
 Exposure time : 28 Days

Species : Rat  
 NOAEL : 10 mg/m<sup>3</sup>  
 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, Head-ache, 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  
 Method: OECD Test Guideline 201

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

#### **Titanium dioxide:**

## Pirimiphos-Methyl Formulation

Version 2.9      Revision Date: 10/01/2022      SDS Number: 1356598-00015      Date of last issue: 04/09/2022  
Date of first issue: 02/24/2017

---

- 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:

##### **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

#### **Mobility in soil**

No data available

#### **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 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Pirimiphos-methyl (ISO))  
Class : 9  
Packing group : III
-

## Pirimiphos-Methyl Formulation

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

---

Labels : 9

### IATA-DGR

UN/ID No. : UN 3077  
 Proper shipping name : Environmentally hazardous substance, solid, n.o.s.  
 (Pirimiphos-methyl (ISO))  
 Class : 9  
 Packing group : III  
 Labels : Miscellaneous  
 Packing instruction (cargo aircraft) : 956  
 Packing instruction (passenger aircraft) : 956  
 Environmentally hazardous : yes

### IMDG-Code

UN number : UN 3077  
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
 N.O.S.  
 (Pirimiphos-methyl (ISO))  
 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.

### Domestic regulation

#### TDG

UN number : UN 3077  
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
 N.O.S.  
 (Pirimiphos-methyl (ISO))  
 Class : 9  
 Packing group : III  
 Labels : 9  
 ERG Code : 171  
 Marine pollutant : yes(Pirimiphos-methyl (ISO))

### 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

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

AICS : not determined  
 DSL : not determined  
 IECSC : not determined

## Pirimiphos-Methyl Formulation

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

### SECTION 16. OTHER INFORMATION

#### Full text of other abbreviations

|                   |   |   |
|-------------------|---|---|
| ACGIH             | : | USA. ACGIH Threshold Limit Values (TLV)   |
| CA AB OEL         | : | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)   |
| CA BC OEL         | : | Canada. British Columbia OEL  |
| CA QC OEL         | : | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| ACGIH / TWA       | : | 8-hour, time-weighted average   |
| CA AB OEL / TWA   | : | 8-hour Occupational exposure limit  |
| CA BC OEL / TWA   | : | 8-hour time weighted average  |
| CA QC OEL / TWAEV | : | Time-weighted average exposure value  |

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; KECl - 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; TECl - 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

|  |   |   |
|--|---|---|
| Sources of key data used to compile the Material Safety Data Sheet | : | Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a> |
|--|---|---|

|               |   |            |
|---------------|---|------------|
| Revision Date | : | 10/01/2022 |
| Date format   | : | mm/dd/yyyy |

## Pirimiphos-Methyl Formulation

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 04/09/2022  |
| 2.9     | 10/01/2022     | 1356598-00015 | Date of first issue: 02/24/2017 |

---

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.

CA / Z8