
MATERIAL SAFETY DATA SHEET OF
PYRACLOSTROBIN + THIOPHANATE-METHYL
+ FIPRONIL 500G/L FS

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY**Supplier:** Shanghai Bosman Industrial Co., Ltd.**Street address:** No.1611, North Sichuan Road, Hongkou District, Shanghai, P.R. China.**FAX:** +86 21 63065878**TEL:** +86 21 63065878**Product name:** Pyraclostrobin + Thiophanate-methyl + Fipronil 500g/L FS**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	CAS NO.	Proportion(w/v)
Pyraclostrobin	175013-18-0	25 g/L
Thiophanate-methyl	23564-05-8	225 g/L
Fipronil	120068-37-3	250 g/L
other ingredients	Not available	Up to 1L

3. HAZARDS IDENTIFICATION

Hazardous by ingestion and inhalation.

Moderately irritating to the eyes. Slightly irritating to the skin.

Avoid contact with eyes and skin.

Harmful to animals. Avoid contaminating bodies of water.

4. FIRST AID MEASURES**Inhalation** Remove affected person to fresh air until recovered.**Ingestion** Rinse mouth and then drink plenty of water.**Skin** If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water.**Eye** If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice.

Version: 1.0 Issue date: Oct. 10, 2021

Advice to Doctor: No specific antidote. Treatment according to symptoms.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Water fog, foam, carbon dioxide or dry chemical.

Avoid strong water jets - airborne dusts may be an explosion hazard.

Hazards from Combustion Products

If involved in a fire, it will emit carbon monoxide, carbon dioxide, hydrochloric acid, Hydrofluoric acid, nitrogen oxides, sulfur oxides, organochlorine compounds

Fire fighting instructions

Special protective equipment:

Wear self-contained breathing apparatus and chemical protective suit.

6. ACCIDENT RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Ensure adequate ventilation, especially in confined areas.

For emergency responders: Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological Information. Should not be released into the environment.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Clean contaminated surface thoroughly. Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Use personal protective equipment as required. Ensure adequate ventilation,

Version: 1.0 Issue date: Oct. 10, 2021

especially in confined areas. Corrosive hazard. Wear protective gloves/clothing and eye/face protection.

Handle in accordance with good industrial hygiene and safety practice.

General Hygiene Considerations: When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available.

Exposure controls

Engineering Controls

Showers, Eyewash stations, Ventilation systems

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and Body Protection

Wear protective gloves and protective clothing.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Environmental exposure controls No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid

Odour : Slight

pH : 5.0-9.0

Solubility in Water : Disperses in water

Version: 1.0 Issue date: Oct. 10, 2021

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.

Hazardous Decomposition Products: None expected under normal use conditions

Incompatible materials : Strong oxidizing agents, strong acids, strong bases

Conditions to avoid: Conditions to avoid Extremes of temperature and direct sunlight.

Hazardous Polymerization Hazardous polymerization is not expected

11. TOXICOLOGICAL INFORMATION

For Pyraclostrobin technical

Acute toxicity

Oral Acute oral LD50 for rats >5000 mg/kg.

Skin and eye Acute percutaneous LD50 for rats >2000 mg/kg. Non-irritating to skin and eyes (rabbits).

Not a skin sensitizer (guinea pigs).

Inhalation LC50 for rats >2.12 mg/l at MMAD >4 μl.

Chronic toxicity

NOEL NOAEL (1 y and 90 d) for dogs 4.3 mg/kg b.w. daily.

Other

Non-genotoxic; no developmental toxicity potential (rats and rabbits); no reprotoxicity potential (rats); no carcinogenic potential (rats and mice).

For Thiophanate-methyl Technical

Acute toxicity

Oral

Acute oral LD50 for male and female rats >5000 mg/kg.

Skin and eye Acute percutaneous LD50 for male and female rats >2000 mg/kg.

Non-irritating to skin and eyes.

Inhalation LC50 (4 h) for rats 1.7 mg/l air..

Chronic toxicity

NOEL (2 y) for rats 8, mice 28.7, dogs 8 mg/kg b.w.

For Fipronil Technical

Acute toxicity

Oral Acute oral LD50 for rats 92 mg/kg.

Version: 1.0 Issue date: Oct. 10, 2021

Skin and eye Acute percutaneous LD₅₀ for rats >2000, rabbits 354 mg/kg. Not a skin or eye irritant (OECD criteria). Not a skin sensitiser.

Inhalation LC₅₀ (4 h) for rats 0.39 mg/l (tech.; nose only exposure).

Chronic toxicity

NOEL (2 y) for rats 0.5 mg/kg diet (0.019 mg/kg b.w.); (18 mo) for mice 0.5 mg/kg diet; (52 w) for dogs 0.2 mg/kg b.w. daily (combined sexes).

12. ECOLOGICAL INFORMATION

For Pyraclostrobin technical

Birds LD₅₀ for bobwhite quail >2250 mg/kg. Dietary LD₅₀ (8 d) for bobwhite quail >5200 mg/kg. NOEC (21 w) for mallard ducks 1350 mg/kg.

Fish LC₅₀ (96 h) (two species) 65 – 75 µg/l.

Daphnia EC₅₀ (48 h) 18 µg/l.

Algae EbC₅₀ (72 h) for *Selenastrum capricornutum* 56 µg/l.

Other aquatic spp. EC₅₀ for *Chironomus riparius* 19 mg/kg (28 d, dosed to sediment), 140 µg/l (25 d, dosed to water).

Bees LD₅₀ (48 h, contact and oral) >200 µg/bee.

Worms LC₅₀ (14 d) for *Eisenia foetida* 6.7 mg/kg soil.

Other beneficial spp. Lab. and field tests with 6 species of non-target arthropods indicate low risk to populations. LR₅₀ (7 d) for *Typhlodromus pyri* 12.6 g/ha; (2 d) for *Aphidius rhopalosiphi* 280 g/ha.

For Thiophanate-methyl Technical

Birds Acute oral LD₅₀ for bobwhite quail and mallard ducks >4640 mg/kg.

Fish LC₅₀ (96 h) for rainbow trout 1.07, carp >62.9 mg/l.

Daphnia LC₅₀ (48 h) 5.4 mg/l.

Algae EC₅₀ (72 h) for *Pseudokirchneriella subcapitata* >25.4 mg/l.

Bees Not toxic to bees; LD₅₀ (topical) >100 µg/bee.

For Fipronil Technical

Birds Acute oral LD₅₀ for bobwhite quail 11.3, mallard ducks >2000, pheasants 31, red-legged partridges 34, house sparrows 1120, pigeons >2000 mg/kg. Dietary LC₅₀ (5 d) for bobwhite quail 49, mallard ducks >5000 mg/kg diet.

Version: 1.0 Issue date: Oct. 10, 2021

Fish Acute LC50 (96 h) for bluegill sunfish 85, rainbow trout 248, European carp 430 μ g/l.

Daphnia LC50 (48 h) 0.19 mg/l; for *D. carinata* (48 h) 3.8 mg/l.

Algae EC50 (96 h) for *Scenedesmus subspicatus* 0.068 mg/l; (120 h) for *Selenastrum capricornutum* >0.16, *Anabaena flos-aquae* >0.17 mg/l.

Bees Highly toxic to honeybees, both by direct contact and by ingestion. However, no risk to bees when used as a soil or seed treatment. **Worms** Non-toxic.

13. DISPOSAL CONSIDERATION

Product Disposal Dispose of product only by using according to the label, or at an approved landfill.

Container Disposal Triple rinse empty container and add rinsate to the spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.

14. TRANSPORT INFORMATION

ADR/RID

U.N. Number 302

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains PYRACLOSTROBIN, THIOPHANATE-METHYL AND FIPRONIL)

UN classification: 9

Packing Group III

IMDG

U.N. Number 3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains PYRACLOSTROBIN, THIOPHANATE-METHYL AND FIPRONIL)

UN classification: 9

Packing Group III

IATA

U.N. Number 3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
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UN classification: 9

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Version: 1.0 Issue date: Oct. 10, 2021

15. REGULATORY INFORMATION

Follow all local, national, international degree, regulations and laws.

16. OTHER INFORMATION

Version: 1.0

Issue date: Oct. 10, 2021

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.

-- END OF MSDS --