# SAFETY DATA SHEET

according to Regulation (EC) No 1272/2008 (CLP)

# Thiophanate-methyl 70% WP

Shanghai Bosman Industrial Co., Limited

| | | | |
|---|---|---|---|
| Product name | **Thiophanate-methyl 70% WP** | SDS number | **BM-SDS-9258** |
| Version | **1.0** | Revision date | **04 November 2026** |
| Supersedes | **Not applicable - new document** | Print date | **04 November 2026** |
| Language | **EN** | Format | **GHS / CLP - 16 sections** |

## 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

| | |
|---|---|
| **Trade name** | Thiophanate-methyl 70% WP |
| **Product type** | Wettable powder (WP) - plant protection product |
| **Active substance** | Thiophanate-methyl (CAS 23564-05-8) |

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

| | |
|---|---|
| **Identified use** | Broad-spectrum benzimidazole fungicide (inhibits fungal microtubule assembly) for the control of powdery mildews, scab, leaf spots, blights and grey mould on fruit, vines, vegetables, cereals and ornamentals, in accordance with the label. For professional users only. |
| **Uses advised against** | Any use other than the identified use. Not for domestic or residential use. Do not use on crops or sites not stated on the label. |

### 1.3 Details of the supplier of the safety data sheet

| | |
|---|---|
| **Supplier** | Shanghai Bosman Industrial Co., Limited |
| **Address** | No. 1611, North Sichuan Road, Hongkou District,<br>Shanghai 200080, P.R. China |
| **Telephone** | +86 21 6306 5878 |
| **Fax** | +86 21 6091 1557 |
| **E-mail** | info@bosmangroup.com |
| **Website** | www.bosmangroup.com |

### 1.4 Emergency telephone number

| | |
|---|---|
| **24-hour emergency line** | +86 21 6356 6528 (Shanghai Bosman Industrial Co., Limited, 24 h) |
| **Poison centre** | Contact your local poisons information centre or emergency services (e.g. 120 in mainland China) in case of poisoning. |

## 2 HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP), Annex I.

| | |
|---|---|
| H332 | Acute Tox. 4 (inhalation) — Harmful if inhaled. |
| H317 | Skin Sens. 1 — May cause an allergic skin reaction. |
| H341 | Germ cell mutagenicity 2 — Suspected of causing genetic defects. |

| | |
|---|---|
| H351 | Carc. 2 — Suspected of causing cancer. |
| H400 | Aquatic Acute 1 — Very toxic to aquatic life. |
| H410 | Aquatic Chronic 1 — Very toxic to aquatic life with long lasting effects. |

## 2.2 Label elements



SIGNAL WORD
**WARNING**

| | |
|---|---|
| H332 H317<br>H341 H351<br>H400 H410 | Harmful if inhaled. May cause an allergic skin reaction. Suspected of causing genetic defects. Suspected of causing cancer. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. |

Supplemental hazard statements: EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

### Precautionary statements - Prevention

| | |
|---|---|
| P264 | Wash hands and face thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P261 | Avoid breathing dust, fume, gas, mist, vapours or spray. |
| P280 | Wear protective gloves, protective clothing, eye protection and face protection. |
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P273 | Avoid release to the environment. |

### Precautionary statements - Response

| | |
|---|---|
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P312 | Call a POISON CENTER or doctor if you feel unwell. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice or attention. |
| P308+P313 | IF exposed or concerned: Get medical advice or attention. |
| P391 | Collect spillage. |

### Precautionary statements - Storage

| | |
|---|---|
| P405 | Store locked up. |
| P402+P404 | Store in a dry place. Store in a closed container. |
| P410+P403 | Protect from sunlight. Store in a well-ventilated place. |

### Precautionary statements - Disposal

| | |
|---|---|
| P501 | Dispose of contents and container to a licensed hazardous-waste contractor. |

## 2.3 Other hazards

This product contains thiophanate-methyl, classified as a germ-cell mutagen Cat. 2 (H341) and Carc. 2 (H351). Avoid exposure; do not handle until all safety precautions have been read and understood.

This mixture does not contain any substance that is identified as having endocrine-disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100, at a concentration of 0.1 % (w/w) or higher.

## 3 COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1 Substances

Not applicable - this product is a mixture.

### 3.2 Mixtures

| Component | CAS No. | EC No. | Concentration | Classification (CLP) |
|---|---|---|---|---|
| **Thiophanate-methyl** | 23564-05-8 | 245-740-7 | 70% | Acute Tox. 4 (H332); Skin Sens. 1 (H317); Germ cell mutagenicity 2 (H341); Carc. 2 (H351); Aquatic Acute 1 (H400); Aquatic Chronic 1 (H410) |
| **Formulants (carrier, wetting agent, dispersant)** | - | - | Balance | Not classified |

The substance classification follows the harmonised classification of thiophanate-methyl in Annex VI to Regulation (EC) No 1272/2008 (EC 245-740-7): Acute Tox. 4 (H332), Skin Sens. 1 (H317), Germ cell mutagenicity Cat. 2 (H341), Carc. 2 (H351), Aquatic Acute 1 (H400) and Aquatic Chronic 1 (H410).

At 70 % w/w the active substance is present far above all generic concentration limits, so every listed hazard class is carried by the formulation.

## 4 FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice** — Move the person out of the contaminated area. Show this safety data sheet to the doctor in attendance. Never give anything by mouth to an unconscious person.

**After inhalation** — Move the person into fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

**After skin contact** — Take off all contaminated clothing immediately. Wash the skin thoroughly with soap and plenty of water. If skin irritation or a rash develops, seek medical advice.

**After eye contact** — Rinse cautiously with water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Continue rinsing. Get medical advice if irritation develops.

**After ingestion** — Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

Low acute toxicity. May cause irritation of the eyes, skin and respiratory tract, and may cause an allergic skin reaction on repeated contact (sensitisation). Inhalation of dust may cause respiratory irritation, sore throat and cough. Ingestion may cause nausea, vomiting and abdominal discomfort. Animal studies indicate effects on the liver, thyroid and blood and a suspicion of carcinogenic and genotoxic potential.

### 4.3 Indication of any immediate medical attention and special treatment needed

No specific antidote. Treat symptomatically and supportively. In all cases of doubt, or if symptoms persist, seek medical advice and show this safety data sheet to the attending physician.

## 5 FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable media** — Water spray, foam, dry powder or carbon dioxide.

**Unsuitable media** — Do not use a solid water stream - it may scatter and spread the fire.

### 5.2 Special hazards arising from the substance or mixture

The product is a solid powder and is not flammable; dust clouds may form explosive mixtures with air. Thermal decomposition may release toxic and irritant gases (carbon oxides, nitrogen oxides, hydrogen chloride, sulfur oxides).

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing. Contain fire water run-off; do not allow it to enter drains or watercourses. Cool closed containers with water spray. Collect contaminated fire-fighting water separately.

## 6 ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Wear the personal protective equipment specified in Section 8. Avoid breathing vapour, mist or spray. Avoid contact with skin and eyes. Ensure adequate ventilation. Remove all sources of ignition where the product is flammable.

### 6.2 Environmental precautions

Do not allow the product to enter drains, sewers, watercourses or groundwater. Prevent the material from spreading. Notify the relevant authorities if the product has entered a watercourse or sewer, or has contaminated soil or vegetation.

### 6.3 Methods and material for containment and cleaning up

Sweep up the powder without raising dust and place it in a labelled, closed container for disposal. Avoid dry sweeping where dust can be inhaled; dampen the material where appropriate. Do not allow the product to enter drains, sewers or watercourses.

### 6.4 Reference to other sections

See Section 8 for personal protection and Section 13 for disposal.

## 7 HANDLING AND STORAGE

### 7.1 Precautions for safe handling

- Avoid generating and breathing dust; handle in well-ventilated areas.
- Avoid contact with skin and eyes; wear the personal protective equipment in Section 8.
- Do not eat, drink or smoke while handling; wash hands and face thoroughly afterwards.
- Keep containers closed when not in use and use dedicated measuring equipment.

### 7.2 Conditions for safe storage, including any incompatibilities

- Store in the original, tightly closed container in a cool, dry, well-ventilated place.
- Protect from moisture, direct sunlight and frost; keep away from food, feed, seed and drinking water.
- Keep locked up and out of the reach of children and unauthorised persons.
- Observe the product label and any national storage restrictions for plant protection products.

### 7.3 Specific end use(s)

Broad-spectrum benzimidazole fungicide (inhibits fungal microtubule assembly) for the control of powdery mildews, scab, leaf spots, blights and grey mould on fruit, vines, vegetables, cereals and ornamentals, in accordance with the label. For professional users only.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

| Component | Limit value | Type | Basis |
|---|---|---|---|
| **Thiophanate-methyl (CAS 23564-05-8)** | No OEL established | - | No binding occupational exposure limit is listed; apply good occupational hygiene practice. |

No occupational exposure limit has been established for the active substance or for the formulated product. Apply the general hygiene standards of good occupational practice and the precautionary measures in Section 8.

### 8.2 Exposure controls

Use only in well-ventilated areas. Where powders are weighed or mixed, provide local exhaust ventilation and avoid generating dust.

| Protective equipment | Requirement |
|---|---|
| **Eye protection** | Tight-fitting protective goggles (EN 166). |
| **Skin protection - hands** | Chemical-resistant gloves (e.g. nitrile rubber, EN 374). |

| Protective equipment | Requirement |
|---|---|
| **Skin protection - body** | Long-sleeved protective clothing and closed footwear. |
| **Respiratory protection** | Where dust, mist or vapour is generated or ventilation is inadequate, wear a suitable respirator (EN 149 FFP2 or EN 143). |

Do not eat, drink or smoke in work areas. Wash hands and face thoroughly after handling and before eating, drinking or smoking. Remove contaminated clothing and wash it before reuse.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

| Property | Value |
|---|---|
| **Physical state** | Solid, free-flowing powder |
| **Appearance** | Free-flowing powder |
| **Colour** | White to pale grey |
| **Odour** | Faint, characteristic |
| **pH** | 6.0 - 8.5 (1 % dispersion) |
| **Flash point** | Not applicable (solid formulation) |
| **Bulk density** | OPEN - not stated in source |
| **Solubility** | Dispersible in water |
| **Explosive properties** | Not classified as explosive; dust clouds may be explosive |
| **Oxidising properties** | Not classified as oxidising |

9.2 Other information - no additional information available.

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity
Stable and unreactive under normal conditions of handling and storage.

### 10.2 Chemical stability
Stable under the recommended storage conditions.

### 10.3 Possibility of hazardous reactions
No hazardous reactions are expected under normal handling and storage.

### 10.4 Conditions to avoid
High temperatures, direct sunlight and moisture.

### 10.5 Incompatible materials
Strong oxidising agents; strong acids and bases.

### 10.6 Hazardous decomposition products
Thermal decomposition may release toxic and irritant gases (carbon oxides, nitrogen oxides, hydrogen chloride, sulfur oxides).

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

| Endpoint | Result | Species / basis |
|---|---|---|
| **Acute toxicity, oral** | LD50 > 5 000 mg/kg | Rat; active substance; low oral toxicity |
| **Acute toxicity, dermal** | LD50 > 2 000 mg/kg | Rat |
| **Acute toxicity, inhalation** | LC50 (4 h) 1 - 5 mg/L (dust) | Rat; active substance; Acute Tox. 4 |
| **Skin corrosion / irritation** | Not classified as irritating | Rabbit |

| Endpoint | Result | Species / basis |
|---|---|---|
| **Serious eye damage / irritation** | Mildly irritating | Rabbit |
| **Respiratory / skin sensitisation** | Skin sensitiser (H317) | Guinea pig |
| **Germ cell mutagenicity** | Suspected of causing genetic defects (H341) | In vitro and in vivo data |
| **Carcinogenicity** | Suspected of causing cancer (H351) | Carc. 2 |
| **Reproductive toxicity** | Not classified | No evidence of reproductive toxicity |
| **STOT - single exposure** | Not classified | - |
| **STOT - repeated exposure** | Not classified | - |

### 11.2 Symptoms and effects

Low acute toxicity. May cause irritation of the eyes, skin and respiratory tract, and may cause an allergic skin reaction on repeated contact (sensitisation). Inhalation of dust may cause respiratory irritation, sore throat and cough. Ingestion may cause nausea, vomiting and abdominal discomfort. Animal studies indicate effects on the liver, thyroid and blood and a suspicion of carcinogenic and genotoxic potential.

### 11.3 Other information

The classification is based on the harmonised classification of the active substance (Annex VI to Regulation (EC) No 1272/2008), applied to the concentration present in this formulation. The formulation itself has not been tested as a whole unless stated.

## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

| Organism | Result | Test condition |
|---|---|---|
| **Fish (acute)** | LC50 (96 h) in the low mg/L range | Active substance |
| **Aquatic invertebrates (acute)** | EC50 (48 h) in the low mg/L range | Active substance |
| **Algae / aquatic plants** | EC50 in the low ug/L range - very highly toxic | Active substance; basis of the H410 classification |

### 12.2 Persistence and degradability

Thiophanate-methyl is moderately persistent in soil; in the environment it is partly converted to carbendazim. Degradation half-lives are typically of the order of weeks to months.

### 12.3 Bioaccumulative potential

Low to moderate potential for bioaccumulation.

### 12.4 Mobility in soil

Mobile and water-soluble; prevent entry into watercourses.

### 12.5 Results of PBT and vPvB assessment

The product and its active substance do not meet the criteria for PBT or vPvB substances in Annex XIII of Regulation (EC) No 1907/2006 (REACH).

### 12.6 Endocrine disrupting properties

No endocrine-disrupting properties are identified in accordance with the criteria of Commission Delegated Regulation (EU) 2017/2100.

### 12.7 Other adverse effects

Very toxic to aquatic life with long lasting effects. This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops.

## 13 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Dispose of surplus product and empty packaging in accordance with national and local waste legislation. Do not contaminate water with the product or its packaging. Do not reuse empty containers for any purpose.

- Empty the container completely; do not reuse empty bags or containers for any other purpose.
- Do not burn empty containers or packaging.
- Dispose of surplus product and non-recyclable packaging through a licensed hazardous-waste contractor, in accordance with national and local regulations.
- Do not contaminate ponds, watercourses or ditches with the product or the empty container.

## 14 TRANSPORT INFORMATION

| Parameter | ADR / RID | IMDG | IATA |
|---|---|---|---|
| **UN number** | Not regulated | Not regulated | Not regulated |
| **Proper shipping name** | Not regulated | Not regulated | Not regulated |
| **Class** | Not regulated | Not regulated | Not regulated |
| **Packing group** | - | - | - |
| **Environmental hazard** | Yes | Yes | Yes |
| **Tunnel code** | - | - | - |
| **EmS / Special** | - | - | - |

### 14.6 Special precautions for user

The product is not classified as dangerous goods for transport in the packaging sizes supplied. Keep packages closed, upright and protected from moisture; do not load together with food or feed. Because the product is classified as hazardous to the aquatic environment, observe any national requirements for the transport of environmentally hazardous substances.

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable - the product is transported in packaged form only.

## 15 REGULATORY INFORMATION

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

- The product is a plant protection product and falls within the scope of Regulation (EC) No 1107/2009.
- Classification according to Regulation (EC) No 1272/2008 (CLP); the hazard statements are given in full in Section 16.
- National registration, labelling and use restrictions for plant protection products apply in the country of use.
- Where applicable, observe Directive 2009/128/EC on the sustainable use of pesticides and the national measures implementing it.

### 15.2 Chemical safety assessment

A chemical safety assessment is not required for this mixture. Exposure scenarios for the formulated product are covered by the label instructions and the risk assessment performed for the registration.

## 16 OTHER INFORMATION

### 16.1 Revision information

Version 1.0 - first issue. Prepared in accordance with Regulation (EC) No 1272/2008 (CLP) and the 16-section format of Annex II to Regulation (EU) 2020/878.

### 16.2 Full text of hazard statements referred to in Sections 2 and 3

| | |
|---|---|
| H332 | Harmful if inhaled. |
| H317 | May cause an allergic skin reaction. |
| H341 | Suspected of causing genetic defects. |

| | |
|---|---|
| H351 | Suspected of causing cancer. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

### 16.3 Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ATE: Acute Toxicity Estimate. CAS: Chemical Abstracts Service. CLP: Classification, Labelling and Packaging (Regulation (EC) No 1272/2008). EC50: half maximal effective concentration. GHS: Globally Harmonised System. IMDG: International Maritime Dangerous Goods Code. LC50: lethal concentration, 50 %. LD50: lethal dose, 50 %. OEL: occupational exposure limit. PBT: persistent, bioaccumulative and toxic. PNEC: predicted no-effect concentration. STOT: specific target organ toxicity. vPvB: very persistent and very bioaccumulative.

### 16.4 Training advice

Users of this product must be trained in safe handling practice, in the correct use of personal protective equipment and in the first-aid measures described in Section 4. Label instructions and national training requirements apply.

### 16.5 Disclaimer

The information in this safety data sheet is based on the present state of knowledge and current legislation at the date of revision. It describes the product with regard to safety requirements and does not constitute a guarantee of any specific property. It remains the responsibility of the user to ensure that the product is used safely and in accordance with the label and applicable legislation. This safety data sheet is supplied for occupational health and safety purposes only.

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