



Safety Data Sheet

Issue Date: 31-Mar-2009

Revision Date: 30-Nov-2015

Version 2

1. IDENTIFICATION

Product Identifier

Product Name

Thiophanate Methyl 85 WDG

Other means of identification

SDS #

ADAMA-043

Registration Number(s)

EPA Reg. No. 66222-145

UN/ID No

UN3077

Recommended use of the chemical and restrictions on use

Recommended Use

EPA registered pesticide.

Details of the supplier of the safety data sheet

Manufacturer Address

Makhteshim Agan of North America, Inc. (d/b/a ADAMA)
3120 Highwoods Blvd., Suite 100
Raleigh, NC 27604
1-919-256-9300

Emergency Telephone Number

Emergency Telephone (24 hr)

For fire, spill and/or leak contact INFOTRAC:
1-800-535-5053 (North America) 1-352-323-3500 (International)
For medical emergencies and health/safety inquiries, contact PROSAR:
1-877-250-9291

2. HAZARDS IDENTIFICATION

This chemical is a product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-EPA registered chemicals. Please see Section 15 for additional EPA information.

Appearance Whitish solid granule

Physical State Solid

Odor No appreciable odor

Classification

Acute toxicity - Inhalation (Dusts/Mists)

Category 4

Germ cell mutagenicity

Category 2

Signal Word

Warning

Hazard Statements

Harmful if inhaled
Suspected of causing genetic defects

**Precautionary Statements - Prevention**

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|--------------------|------------|-------------|
| Thiophanate-methyl | 23564-05-8 | 82.45-87.55 |

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES**First Aid Measures****General Advice**

When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment. If exposed or concerned: Get medical advice/attention.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or doctor for treatment advice.

Skin Contact

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Inhalation

Give oxygen if breathing is difficult. If breathing has stopped, call 911, give artificial respiration. Call a poison control center or doctor for further treatment advice.

Ingestion

Immediately call a poison center or doctor/physician. Do not induce vomiting, unless directed by medical personnel. Never give anything by mouth to an unconscious person. If conscious give 2 glasses of water to dilute.

Most important symptoms and effects

| | |
|-----------------|--|
| Symptoms | May cause moderate eye irritation. May cause brief and/or minor skin irritation. Harmful if inhaled. |
|-----------------|--|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Notes to Physician | Treat symptomatically. |
|---------------------------|------------------------|

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Foam. Dry chemical. Carbon dioxide (CO₂). Water spray (fog). Sand/earth.

Unsuitable Extinguishing Media Use of water should be avoided if possible.

Specific Hazards Arising from the Chemical

Not determined.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate area of unprotected personnel. Remain upwind of fire to avoid hazardous vapors and decomposition products. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

| | |
|----------------------------------|---|
| Personal Precautions | Wear protective clothing as described in Section 8 of this safety data sheet. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Avoid creating dust. |
| Environmental Precautions | Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS. |

Methods and material for containment and cleaning up

| | |
|--------------------------------|--|
| Methods for Containment | Prevent further leakage or spillage if safe to do so. |
| Methods for Clean-Up | Vacuum or sweep up material and place in a disposal container. Wash area with soap and water. Pick up wash liquid with inert absorbent and place in a chemical waste container for disposal. |

7. HANDLING AND STORAGE**Precautions for safe handling**

| | |
|--------------------------------|---|
| Advice on Safe Handling | Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Wash face, hands, and any exposed skin thoroughly after handling. Use only with adequate ventilation. Do not eat, drink, smoke, or apply cosmetics while handling this product. Do not breathe dust/fume/gas/mist/vapors/spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. |
|--------------------------------|---|

Conditions for safe storage, including any incompatibilities

| | |
|-------------------------------|---|
| Storage Conditions | Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep out of the reach of children. Keep/store only in original container. Store at ambient conditions. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment. Store locked up. |
| Packaging Materials | Do not reuse container. |
| Incompatible Materials | Strong oxidizers. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines The following information is given as general guidance

Appropriate engineering controls

Engineering Controls Please refer to the product label. Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures, such as personal protective equipment

| | |
|---------------------------------------|--|
| Eye/Face Protection | Wear safety glasses with side shields (or goggles). Goggles are recommended. |
| Skin and Body Protection | Wear appropriate clothing to prevent repeated or prolonged skin contact. Wear long-sleeved shirt, long pants, and shoes plus socks. Use chemical resistant gloves, such as P.V.C., butyl-rubber, nitrile-rubber, or neoprene. |
| Respiratory Protection | NIOSH-approved respirator or mask in the absence of adequate ventilation. |
| General Hygiene Considerations | Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Take off all contaminated clothing and wash it before reuse. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Contaminated work clothing should not be allowed out of the workplace. |

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

| | | | |
|-----------------------|-----------------------|-----------------------|---------------------|
| Physical State | Solid | Odor | No appreciable odor |
| Appearance | Whitish solid granule | Odor Threshold | Not determined |
| Color | Whitish | | |

| Property | Values | Remarks • Method |
|------------------------------|----------------|-------------------------|
| pH | Not determined | |
| Melting Point/Freezing Point | Not determined | |
| Boiling Point/Boiling Range | Not applicable | |
| Flash Point | Not applicable | |
| Evaporation Rate | Not determined | |
| Flammability (Solid, Gas) | Not determined | |
| Upper Flammability Limits | Not applicable | |
| Lower Flammability Limit | Not applicable | |
| Vapor Pressure | Not applicable | |
| Vapor Density | Not determined | |
| Specific Gravity | Not determined | |
| Water Solubility | Not determined | |

| | |
|-------------------------------------|-----------------|
| Solubility in other solvents | Not determined |
| Partition Coefficient | Not determined |
| Auto-ignition Temperature | Not determined |
| Decomposition Temperature | Not determined |
| Kinematic Viscosity | Not determined |
| Dynamic Viscosity | Not determined |
| Explosive Properties | Not determined |
| Oxidizing Properties | Not determined |
| Bulk Density | 36.8 lb/cu. ft. |

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

Strong oxidizers.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

| | |
|---------------------|--------------------------|
| Eye Contact | Avoid contact with eyes. |
| Skin Contact | Avoid contact with skin. |
| Inhalation | Harmful if inhaled. |
| Ingestion | Do not taste or swallow. |

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|----------------------------------|----------------------|--|--------------------------------------|
| Thiophanate-methyl 23564-05-8 | = 6640 mg/kg (Rat) | > 10 g/kg (Rat) > 10 g/kg (Rabbit) | = 1700 mg/m ³ (Rat) 4 h |

Information on physical, chemical and toxicological effects

| | |
|-----------------|--|
| Symptoms | Please see section 4 of this SDS for symptoms. |
|-----------------|--|

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|-------------------------------|---------------------------------------|
| Germ cell mutagenicity | Suspected of causing genetic defects. |
|-------------------------------|---------------------------------------|

Carcinogenicity

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Product Information (Numerical measures of toxicity)

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

Acute Dermal LD50 (Rabbit): >2,000mg/kg

Acute Inhalation LC50 (Rat): >2.03 mg/L (4-hr)

Eye Irritation: Mildly irritating.

Dermal Irritation: Slightly irritating.

Dermal Sensitization: Not a skin sensitizer.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not contaminate water when disposing of equipment washwaters.

Component Information

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|----------------------------------|----------------------|---|----------------------------|-----------|
| Thiophanate-methyl 23564-05-8 | | 7.8: 48 h Oncorhynchus mykiss mg/L LC50 | | |

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods**Disposal of Wastes**

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Contaminated Packaging

Triple rinse empty container, then offer for recycling, reconditioning or disposal. Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

| Chemical Name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|----------------------------------|------|--------------------------|------------------------|------------------------|
| Thiophanate-methyl 23564-05-8 | U409 | | | U409 |

14. TRANSPORT INFORMATION**DOT**

Package size less than 11.8 Lbs.: Not Regulated

UN/ID No UN3077
Proper Shipping Name Environmentally hazardous substance, solid, n.o.s. (Thiophanate-methyl)
Hazard Class 9
Packing Group III
Reportable Quantity (RQ) 10 Lbs.
 Marine pollutant

IATA

UN 3077, Environmentally hazardous substance, solid, n.o.s. (Thiophanate-methyl), 9, PG III

IMDG

UN3077, Environmentally hazardous substance, solid, n.o.s. (Thiophanate-methyl), 9, PGIII, Marine pollutant

15. REGULATORY INFORMATION**International Inventories****TSCA**

All ingredients are listed or exempt from listing on Chemical Substance Inventory

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

US Federal Regulations**CERCLA**

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|----------------------------------|--------------------------|----------------|--|
| Thiophanate-methyl 23564-05-8 | 10 lb | | RQ 10 lb final RQ RQ 4.54 kg final RQ |

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
 Chronic Health Hazard Yes
 Fire Hazard No
 Sudden Release of Pressure Hazard No
 Reactive Hazard No

SARA 313

| Chemical Name | CAS No | Weight-% | SARA 313 - Threshold Values % |
|---------------------------------|------------|-------------|-------------------------------|
| Thiophanate-methyl - 23564-05-8 | 23564-05-8 | 82.45-87.55 | 1.0 |

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

| Chemical Name | California Proposition 65 |
|---------------------------------|--|
| Thiophanate-methyl - 23564-05-8 | Female Reproductive Male Reproductive |

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---------------|------------|---------------|--------------|
|---------------|------------|---------------|--------------|

| | | | |
|----------------------------------|---|--|--|
| Thiophanate-methyl 23564-05-8 | X | | |
|----------------------------------|---|--|--|

EPA Pesticide Registration Number 66222-145**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide Label

Signal Word: Caution

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Difference between SDS and EPA pesticide label

| | EPA | OSHA |
|---|----------------------------------|--------------------------------------|
| Signal Word | Caution | Warning |
| Acute toxicity - Dermal | Harmful if absorbed through skin | N/A |
| Acute toxicity - Inhalation (Dusts/Mists) | N/A | Harmful if inhaled |
| Serious eye damage/eye irritation | Causes moderate eye irritation | N/A |
| Germ cell mutagenicity | N/A | Suspected of causing genetic defects |

16. OTHER INFORMATION**NFPA****Health Hazards****Flammability****Instability****Special Hazards**

1

0

0

None

HMIS**Health Hazards****Flammability****Physical Hazards****Personal Protection**

1

0

0

See section 8

Issue Date:

31-Mar-2009

Revision Date:

30-Nov-2015

Revision Note:

Updated format from 28-Aug-2014

Disclaimer

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 given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet