



CLEARY MATERIAL SAFETY DATA SHEET

26/36 Fungicide™

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Please read the entire document. This Material Safety Data Sheet contains important environmental, health and toxicology information for your employees, and anyone who will use, transport, store, dispose of or handle this product. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information contained herein must be incorporated in your MSDS.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 26/36 Fungicide
EPA REGISTRATION NUMBER(S): 432-1414-1001
CHEMICAL NAME: Iprodione and Thiophanate-methyl
PRODUCT USE: A Fungicide for the prevention and control of certain diseases of turfgrass and ornamentals.

COMPANY

Cleary Chemical
 178 Ridge Road, Suite A
 Dayton, New Jersey 08810

EMERGENCY TELEPHONE NUMBERS

CLEARY CHEMICAL CORP. M-F 9-5 EST (800) 524-1662 OR (732) 329-8399	PROSAR: (800) 324-7598 CHEMTREC 24 HOUR: (800) 424-9300
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SECTION 2: INFORMATION ON INGREDIENTS

Active Ingredient(s)/ Hazardous Inert Ingredient(s)	% by Wt.	CAS#	ACGIH TLV	OSHA PEL
Iprodione	19.65	36734-19-7	NA	NA
Thiophanate-methyl	19.65	23564-05-8	NA	NA

SECTION 3: HEALTH HAZARD INFORMATION

Routes of Exposure: Inhalation, Ingestion, Eye Contact, Skin Absorption

Ingestion: Harmful if swallowed. Do not take internally.

Eye: Cause substantial but temporary eye injury. May cause eye irritation. Do not get in eyes.

Skin: Harmful if absorbed through skin. Avoid contact with skin and clothing.

Inhalation: Harmful if inhaled. Avoid breathing spray mist.

SECTION 4: FIRST AID MEASURES

General: Have the product container or label with you when calling a poison control center or doctor or going for treatment.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person.

Eye: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

continued on next page

SECTION 4: FIRST AID MEASURES (continued from page 1)

Skin: Take off all contaminated clothing immediately. Rinse immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.

Inhalation: Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN

Hazards: May pose an aspiration pneumonia hazard. Contains petroleum distillates.

Treatment: There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5: FIRE AND EXPLOSION INFORMATION

Flash Point & Method: >93.3°C/>199.9°F; Method: Setaflash

Suitable Extinguishing Media: water spray, foam, carbon dioxide (CO₂), dry chemical

Special Fire Fighting Procedures: Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Equipment or materials involved in pesticide fires may become contaminated. Wear self-contained breathing apparatus and protective suit.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods for Cleaning Up: Take up with absorbent material (e.g. sand, earth or a proprietary absorbent material). Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

Additional Advice: Use personal protective equipment. Avoid breathing vapors and avoid skin contact. Do not allow material to enter streams, sewers, or other waterways.

SECTION 7: HANDLING AND STORAGE

Handling Procedures: Handle and open container in a manner as to prevent spillage.

Storing Procedures: Do not contaminate water, food, or feed by storage or disposal. Store in a cool, dry place and in such a manner to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Work/Hygienic Procedures: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. As soon as practical, wash thoroughly and change into clean clothing.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Eye/Face Protections: Wear tightly fitting safety goggles.

Hand Protection: Chemical resistant gloves.

Body Protection: Wear long-sleeved shirt and long pants and shoes plus socks.

Respiratory Protection: When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or Industry recommendations.

General Protection: Follow all label instructions. Educate and train employees in safe use of the product. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Exposure Limits:

1,2-Propanediol	57-55-6		
WEEL	TWA	50 ppm	Form of Exposure: Total vapor and aerosol.
WEEL	TWA	10 mg/m ³	Form of Exposure: Aerosol.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	opaque beige
Physical State:	liquid, viscous
pH:	6.9 at 25°C; Aqueous suspension
Density:	1/17 g/ml
Bulk Density:	9.74 lbs/gal

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions.

Incompatibility: strong acids and strong bases; strong oxidizing agents

Hazardous: Thermal decomposition

Decomposition Products: hydrogen chloride (HCl); nitrogen oxides (NO_x)

SECTION 11: TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been conducted on this product as formulated. The non-acute information pertains to the technical-grade active ingredients, iprodione and thiophanate methyl.

Acute Oral Toxicity: male/female rat: LD50: >5,000 mg/kg

Acute Dermal Toxicity: male/female rat: LD50: >5,000 mg/kg

Acute Inhalation Toxicity: male/female rat: LD50: >2.01 mg/l

Exposure time: 4 h

Determined in the form of liquid aerosol.

Maximum attainable concentration.

No deaths

male/female rat: LC50: >8.04 mg/l

Exposure time: 1h

Determined in the form of liquid aerosol.

Extrapolated from the 4 hr LC50.

Skin Irritation: rabbit: Slight irritation

Eye Irritation: rabbit: Moderate eye irritation

Sensitization: guinea pig: Non-sensitizing

Chronic Toxicity: Iprodione caused effects in the liver, adrenal, ovary, and testes in chronic feeding studies. Thiophanate methyl caused mild anemia and effects in liver and thyroid in chronic feeding studies. In addition, transient neurological effects (tremors) were observed in dogs.

Assessment Carcinogenicity: Iprodione produced benign testicular tumors in rats and benign liver and ovary tumors in mice when tested at a maximum tolerated dose. Thiophanate methyl produced benign liver tumors in mice and thyroid tumors in rats.

ACGIH: None;

NTP: None;

IARC: None;

OSHA: None

Reproductive & Developmental Toxicity: REPRODUCTION: Neither iprodione nor thiophanate methyl caused reproductive toxicity in multi-generation studies in rats.

DEVELOPMENTAL TOXICITY: Neither iprodione nor thiophanate methyl are primary developmental toxicants as only minor delays or variations in fetal development were observed only at doses that caused maternal toxicity.

Neurotoxicity: Iprodione is not considered to be a neurotoxicant. No results of specific neurotoxicity testing are available for thiophanate methyl.

Mutagenicity: Based on the overall weight of evidence, neither iprodione nor thiophanate methyl were genotoxic in a battery of *in vitro* and *in vivo* studies.

SECTION 12: ECOLOGICAL INFORMATION

Environmental Precautions: This product is toxic to invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to fish/aquatic organisms in adjacent sites. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

SECTION 13: DISPOSAL CONSIDERATIONS

Pesticide Disposal: Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Triple rinse containers. Puncture container to avoid re-use. Then dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

RCRA Classification: 23564-05-8 Thiophanate-methyl - US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261): U409

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SECTION 14: TRANSPORTATION INFORMATION

Transportation Classification: Not regulated for all modes of Transportation

Freight Classification: Insecticides or Fungicides, N.O.I.; other than poison

SECTION 15: REGULATORY INFORMATION

US Federal Regulations:

TSCA list; None.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D): None.

SARA Title III - Section 302 - Notification and Information: None

SARA Title III - Section 313 - Toxic Chemical Release Reporting:

Thiophanate-methyl	23564-05-8	1.0%
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US States Regulatory Reporting

CA Prop65:

This product contains a chemical known to the State of California to cause cancer.

Iprodione	36734-19-7
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This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Thiophanate-methyl	23564-05-8	Female reproductive toxin.
Thiophanate-methyl	23564-05-8	Male reproductive toxin.

US State Right-To-Know Ingredients: Thiophanate-methyl 23564-05-8 NJ

Canadian Regulations

Canadian Domestic Substance List: Thiophanate-methyl 23564-05-8

Environmental

CERCLA: Thiophanate-methyl 23564-05-8 1 lbs

Clean Water Section 307 Priority Pollutant: None

Safe Drinking Water Act Maximum Contaminant Levels: None

International Regulations

European Inventory of Existing Commercial Substances (EINECS): Iprodione 36734-19-7
Thiophanate-methyl 23564-05-8

SECTION 16: OTHER INFORMATION

NFPA: Health=2, Fire=1, Reactivity=1, Others=none
0=minimal hazard, 1=slight hazard, 2=moderate hazard, 3=severe hazard, 4=extreme hazard

Please note: Cleary Chemical Corp. believes that the information and recommendations contained herein are accurate as of the date hereof. The information provided herein applies only to the specific product designated and may not be valid where said product is used in combination with any other material or in any process. It is the users responsibility to determine the suitability of the information for their purposes. No warranty of fitness for any particular purpose, warranty of merchantability, or any other warranty, expresser or implied, is made concerning the information provided.

Reason for issue:	New MSDS for initial product registration	Effective date:	3.18.05
Prepared by:	Bayer Corp.	Replaces:	NA