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Spectro 90[™]WDG

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

Product Name: Spectro 90 WDG
W.A.Cleary Product Code: 4151 (5 lb)
EPA Registration Number: 1001-72

Chemical Names: Tetrachloroisophthalonil
and Dimethyl-4,4'-o-phenylenebis-[3-thioallophanate]
Synonyms: Chlorothalonil and Thiophanate-methyl

INGREDIENT INFORMATION

Active Ingredient (CAS #)	Percent	Exposure Limits
Tetrachloroisophthalonil (1897-45-6)	72.0%	TLV's and PEL's have not been established.
Dimethyl-4,4'-o-phenylenebis-[3-thioallophanate] (23564-05-8)	18.0%	
Inert Ingredients	10.0%	

HEALTH HAZARD DATA

Ingestion: May cause irritation of gastrointestinal track following ingestion of large amounts.

Inhalation: Not readily respirable. Prolonged inhalation of spray mists may cause irritation.

Eye Contact: May cause transient irritation.

Skin Contact: Moderate irritant, dermal sensitizer.

Chronic Effects Of Overexposure: Irritation of eyes, nose, and throat, dermatitis, headache and nausea.

EMERGENCY AND FIRST AID PROCEDURES

Ingestion: Drink 1-2 glasses of water, and induce vomiting as soon as possible by tickling the back of the throat with the finger or similar blunt object. Do not induce vomiting of an unconscious person. Seek medical attention immediately; call a physician or Poison Control Center.

Skin Contact: Wash exposed area of skin with soap and warm water. Contaminated clothing including footwear should be thoroughly cleaned before reuse. Seek medical attention if irritation persists. Note to physicians: persons having temporary skin irritation symptoms may respond to treatments with antihistamines or steroid creams.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately.

Inhalation: Remove to fresh air. If symptoms develop, seek medical attention. If victim is not breathing, give artificial respiration. Get medical attention.

FIRE & EXPLOSION DATE

Flash Point : N/A

Flammable Limits (vol % in air): N/A

Autoignition Temperature: N/A

Extinguishing Media: Carbon dioxide, foam, water, dry chemical, earth, or sand.

Special Fire Fighting Procedures: Self-contained breathing apparatus. Contain runoff by diking to prevent entry into sewers on waterways.

Unusual Fire and Explosion Hazards: May decompose under fire conditions emitting gases and vapors (ie. hydrogen chloride) which may be toxic and irritating to the respiratory tract.

ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled: This product is toxic to fish. Keep out of lakes, streams or ponds. Contain spill. Remove as much as possible with applicable methods. Shovel up small spills, place in closed labeled containers and store in safe place out of doors to await proper disposal. Re-use spilled material if possible, otherwise dispose in accordance with all federal, state and local health and pollution regulations.

HANDLING AND STORAGE

Precautions to be taken in handling and storing: Store in original sealed containers in a cool dry area not accessible to children or unauthorized persons.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Clothing: Dress to avoid skin contact using clothing such as but not limited to: long sleeve shirt, pants, or coveralls, water resistant boots, rubber gloves. Contaminated clothing should be changed daily.

Eye Protection: Chemical goggles, face shield, or safety glasses with side shields recommended.

Ventilation: Use product outdoors or in an isolated area with adequate local exhaust ventilation. Users should work upwind to avoid repeated exposure in outdoor operations.

Respiratory Protection: OSHA approved dust or pesticide respirator in confined spaces.

Other: Protective barrier cream may be applied on exposed skin areas.

PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: >350°C (lowest boiling component)
Melting Point: 250°C
Freezing Point: N/A
Specific Gravity: 1.38 (calculated)
Bulk Density: 37-42 lb/cu ft
Vapor Pressure (@ 25°C): 5.72 x 10⁻⁷ @ 25°C

VOC Volatile: Zero
Evaporation Rate: N/A
Solubility In Water: <1.2 ppm (considered insoluble)
pH: 6-8
Appearance And Odor: Fine, light gray to tan fine granule, faint sulfur odor.

REACTIVITY HAZARD DATA

Stability: Stable under normal use and transportation situations.

Conditions To Avoid: N/A

Incompatibility: Highly alkaline materials, oxidizing agents, lime sulfur, bordeaux mixture, copper compounds.

Hazardous Polymerization: N/A

Hazardous Decomposition Products: Thermal decomposition generates hydrogen chloride and oxides of nitrogen, sulfur, and carbon.

TOXICOLOGICAL INFORMATION

TOXICITY DATA:

Oral (acute): LD₅₀ > 5000 mg/kg (rat)

Dermal (acute): LD₅₀ > 2,000 mg/kg (rabbit)

Inhalation (acute): N/A. Particle size not respirable. Particle integrity established.

Chronic: Chlorothalonil: Repeated excessive dermal exposure may cause marked skin irritation. Studies on rats and mice have suggested that technical chlorothalonil (97%), when fed at high levels in the diet, may have oncogenic potential to these laboratory animals. However, neither chlorothalonil or its metabolites interact with DNA. In addition, numerous mutagenicity studies have been conducted which further demonstrate that these compounds are not mutagenic. Tumor formation has been related to a non-genotoxic mechanism of action for which threshold levels have been established on rats and mice. Comprehensive dietary and worker exposure studies have shown exposure levels for humans to be well below these threshold levels. In addition, surveillance of chlorothalonil plant workers for over twenty years has not demonstrated any increase in oncogenic potential to humans.

Thiophanate methyl: No oncogenicity, no observed effect level, 160 ppm in diet for two years (rat) and 50 mg/kg/day in single dose for two years (dog) and to mice consuming levels as high as 640 ppm over a two year period. No delayed neurotoxicity or cholinesterase inhibition. No teratogenicity to rats or mice dosed throughout pregnancy with levels as high as 1,000 mg/kg/day. No effects on spermatogenesis, testosterone assimilation and no evidence of effects on fertility, fecundity or offspring from a three generation study. Ames, Mammalian Somatic, Cytogenicity, Dominant Lethal, DNA Damage/Repair all test negative.

ECOLOGY DATA

Toxic to fish aquatic invertebrates, and marine/estuarine organisms. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. **Do not** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. **Do not** contaminate water when disposing of equipment washwaters. **Do not** apply when weather conditions favor drift from treated areas. Apply only to areas specified on label.

DISPOSAL

Waste Disposal Methods: Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by intended use according to label instructions, contact the appropriate agency in your state or the nearest EPA Regional Office for guidance.

TRANSPORTATION INFORMATION

DOT Shipping Description: Fungicide, Agricultural, Solid, N.O.I.

DOT Hazard Classification: Not DOT regulated

UN Identification Number: N/A

DOT Packing Group: N/A

OSHA Hazard Classification: N/A

Reportable Quantity: N/A

Hazardous Substance: N/A

DOT Label Requirements: N/A

IMO (water): Not regulated

IATA (air): Not regulated

REGULATORY INFORMATION

EPA SARA TITLE III DATA: Positive rating for acute hazard.

SECTION 302 Substances: N/A

RCRA Waste Number: N/A

SECTION 311/312 Hazardous Categories: N/A

Immediate Health: Yes

Delayed Health: No

Fire: No

Reactive: No

Sudden Pressure: No

SECTION 313 TOXIC CHEMICALS: Chlorothalonil and Thiophanate methyl

CERCLA RQ: N/A

CALIFORNIA PROP 65: N/A

NFPA RATINGS

Flammability: 0

Reactivity: 0

Health: 3

PLEASE NOTE: CLEARY CHEMICAL CORPORATION 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 user's 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, expressed or implied, is made concerning the information provided herein.