



CLEARY MATERIAL SAFETY DATA SHEET

Spectro 90 WDG

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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: Spectro 90 WDG
EPA REGISTRATION NUMBER(S): 1001-72
CHEMICAL NAMES: Tetrachloroisophthalonil
 Dimethyl 4,4-o-phenylenebis-(3-thioallophanate)
SYNONYMS: Chlorothalonil, Thiophanate-methyl
GENERAL USE: Turf and ornamental fungicide

<u>COMPANY</u>	<u>EMERGENCY TELEPHONE NUMBERS</u>	
Cleary Chemical Corporation 178 Ridge Road, Suite A Dayton, New Jersey 08810	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

SECTION 2: INFORMATION ON INGREDIENTS

Active Ingredient(s)/ Hazardous Inert Ingredient(s)	% by Wt.	CAS#	ACGIH TLV	OSHA PEL
Tetrachloroisophthalonitrile Dimethyl 4,4-o-phenylenebis- (3-thioallophanate)	72% 18%	1897-45-6 23564-05-8	Not established	Not established

SECTION 3: HEALTH HAZARD INFORMATION

Acute Health Hazards

If in eyes: 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.

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

If swallowed: Call 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 told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Note to physicians: Probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote is available. All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. Persons having temporary skin irritation may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Effective Date: 7.21.05

NDA = No Data Available NA = Not Applicable

SECTION 4: FIRST AID MEASURES

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SECTION 5: FIRE AND EXPLOSION INFORMATION

Flash Point (Method): NA

Flammable Limits (vol % in air): NA

Auto Ignition Temperature: NA

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

Special Fire Fighting Procedures: Self contained breathing apparatus should be provided for fire fighters. Contain runoff by diking to prevent entry into sewers or waterways.

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

SECTION 6: 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 and sweep 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.

SECTION 7: 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 personnel.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Clothing: Dress to avoid skin contact. Wear protective clothing such as, but not limited to: long sleeve shirt and pants, or coveralls and water resistant boots. Protective waterproof gloves are recommended. Contaminated clothing should be changed.

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: NIOSH approved dust or pesticide respirator in confined spaces.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (760 mm Hg):	NA
Melting Point:	250° C
Freezing Point:	NA
Specific Gravity (25° C):	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:	NA
Water Solubility (% by wt.):	<1.2 ppm (considered insoluble)
pH:	6-8
Appearance and Odor	Fine, light gray to tan fine granular; faint sulfur odor.

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under normal use and transportation situations.

Conditions to Avoid: NA

Incompatibility: alkaline materials, oxidizing agents, lime sulfur, Bordeaux mixture, copper compounds

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

Hazardous Polymerization: NA

SECTION 11: TOXICOLOGICAL INFORMATION

Oral (Acute) LD50: >5000 mg/kg (rat)

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

Inhalation (acute) LC50: Not applicable. 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 feed at high levels in the diet, may have oncogenic potential to these laboratory animals. However, neither chlorothalonil nor 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 1000 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.

SECTION 12: ECOLOGICAL INFORMATION

This product is 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.

Effective Date: 7.21.05

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SECTION 13: DISPOSAL CONSIDERATIONS

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.

SECTION 14: TRANSPORTATION INFORMATION

Freight Classification: Fungicide, agricultural, N. O. I., Solid

DOT Hazard Classification: Non-regulated

UN Identification Number: NA

DOT Packing Group: NA

OSHA Hazard Classification: NA

Reportable Quantity: 5.6 lb.

Hazardous Substance: NA

DOT Label Requirements: NA

IATA (air): Non-regulated

IMO (water): Non-regulated

SECTION 15: REGULATORY INFORMATION

EPA SARA Title III Data: Positive rating for acute hazard

Section 302 Substances: NA

RCRA Waste Number:

Chlorothalonil - NA

Thiophanate methyl - U409

Section 311/312 Hazardous Categories: NA

Immediate Health: Yes

Delayed Health: Yes

Fire: No

Sudden Pressure: No

Reactivity: No

Section 313 Toxic Chemicals: Chlorothalonil and thiophanate methyl

CERCLA RQ:

Chlorothalonil - NA

Thiophanate methyl - 1 lb.

California Prop 65: N/A This product contains the following chemicals subject to SARA Section 313 reporting requirements. Chlorothalonil and Thiophanate-methyl . Note: When this product is used in accordance with the label directions, exposure and thus risk is below the level which requires a Prop 65 warning.

NFPA Ratings: Health: 3 Flammability: 0 Reactivity: 0

SECTION 16: OTHER INFORMATION

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, expressed or implied, is made concerning the information provided.

Reason for issue:	change in first aid statements/general update
Prepared by:	Rick Fletcher
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