

MATERIAL SAFETY DATA SHEET



For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night: 1-800-424-9300
For Medical Emergencies Only, Call: 1-877-325-1840

Voluntary Purchasing Groups, Inc.
230 FM 87
Bonham, Texas 75418

Effective Date: December 27, 2008

Ferti-lome® Broad Spectrum Landscape & Garden Fungicide

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Ferti-lome® Broad Spectrum Landscape & Garden Fungicide
EPA No.: 60063-16-7401

COMPANY IDENTIFICATION:

Voluntary Purchasing Groups, Inc.
230 FM 87
Bonham, TX. 75418

2. GENERAL INFORMATION:

1-Slight Health Hazard 0-Non-cumbustible 0-Nonreactive

Above: Ratings based on NIOSH "identification System for Occupationally Hazardous Materials" (1974).

3. TRANSPORT INFORMATION:

This product is regulated for transportation purposes as follows:

<u>MODE</u>	<u>BULK (>119 Gal.)</u>	<u>NON -BULK (>119 Gal.)</u>
IATA (Air):	Yes	No
IMO (Water):	Yes	No
DOT (Land):	Yes	No

Proper Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (chlorothalonil), 9, UN3082, PG III, ERG#171
Special Provisions: Marine pollutant
Freight class: NMFC Item #102120

SARA TITLE III INFORMATION

313 Inventory Ingredients: Chlorothalonil (12.5% wt/wt)

312 Hazards Classification: Acute and chronic Health (See Section V for Health Hazard Information)

4. PRODUCT IDENTIFICATION

Product Names: Ferti-lome® Broad Spectrum Landscape & Garden Fungicide
Synonyms (active ingredient): Tetrachloroisophthalonitrile, Chlorothalonil

5. HAZARDOUS INGREDIENTS:

The substances listed below are those identified as hazardous 1910, 1200).

<u>COMPONENT</u>	<u>CAS NO.</u>
Tetrachloroisophthalonitrile	1897-45-6

Exposure Limits for Product:

ACGIH-TLV: Not Established
OSHA-PEL: Not Established

6. PHYSICAL DATA:

Boiling Point (760m m Hg): 100°C (lowest boiling component)
Melting Point: not applicable

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Freezing Point: -5°C
Specific Gravity (H₂O=1): 1.115
Vapor Pressure: *5.72x10⁻⁷ torr @ 25°C
Vapor Density (Air=1): Not Determined
Solubility in H₂O, % by Wt.: *0.6-0.9ppm. Formulation: Dispersible in water
% Volatiles by Vol. 65
Evaporation Rate (Butyl Acetate=1): Not Determined
Appearance and Odor: Liquid, white, slight odor
Density at 20°C: 1.115 g/ml (9.3 lbs/gal)
PH: 5-8

7. FIRE & EXPLOSION DATA:

Flash Point Nonflammable
Auto ignition Temperature: Not Applicable
Flammable Limits in Air, % by Volume: Noncombustible
Lower: Not Applicable
Upper: Not Applicable
Extinguishing Media Carbon dioxide, foam, dry chemical or water
Special Fire Fighting Procedures: self-contained breathing apparatus should be provided for firefighters.
Unusual Fire and Explosion Hazards: May decompose under fire conditions emitting toxic and irritant gases (i.e. hydrogen chloride) to the respiratory tract.

8. HEALTH HAZARD INFORMATION:

Oral LD50 (rat): 4,200 mg/kg; Category IV

Dermal LD50 (rabbit): >2000 mg/kg; Category III

Inhalation (4 hour) LC50 (rat): >7.16 mg/L (nominal concentration); Category IV

Primary Dermal Irritation Index (rabbit): Draize 1.3/8.0; Mild dermal irritant; Category III

Primary Eye Irritation (rabbit & monkey): Eye irritant; reversible corneal, iridal and conjunctival effects; maximum mean Draize score (24 hours) for rabbits = 23.3/110 and for monkeys = 25.3/110

Effect of Exposure

Inhalation: May cause irritation to the respiratory tract.

Skin Contact: Mildly irritation to skin. Material rarely causes an allergic reaction.

Skin Absorption: Not readily absorbed through intact skin.

Eye Contact: Human experience indicates that this product may cause mild to severe irritation, depending on degree of exposure. No evidence of permanent damage has been found.

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

Emergency and First Aid Procedures

EYES: IMMEDIATELY flush eyes with plenty of water for at least 15 minutes holding eyelids apart to ensure flushing of the entire eye surface. Seek medical attention immediately.

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Skin: Wash with plenty of soap and water. Remove contaminated clothes and footwear. Wash clothing and decontaminate footwear before reuse. Seek medical attention if irritation persists.

Inhalation: Remove person from contaminated area to fresh air or employ proper respiratory protection until adequate ventilation or other control measure is restored. If symptoms develop, seek medical attention.

Ingestion: If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep airway clear. **NEVER** give anything by mouth to an unconscious person. Seek medical attention.

NOTES TO PHYSICIAN

Persons having temporary irritation symptoms respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Effects of Chronic Overexposure:

Repeated excessive dermal exposure may cause marked skin irritation and may increase the possibility of allergic reactions. Studies on rats and mice have suggested that technical chlorothalonil, when fed at high levels in the diet, may have oncogenic potential to these laboratory animals. However, neither chlorothalonil nor its metabolites interact with DNA and thus are not mutagenic. Tumor formation has been related to a non-genotoxic mechanism of action from 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 many years has not demonstrated any increase in oncogenic potential to humans.

9. REACTIVITY DATA:

Conditions Contributing to Instability: Under normal use conditions, this product is stable.

Incompatibility: Not known.

Hazardous Decomposition Products: May decompose under fire conditions emitting gases and vapors (i.e. hydrogen chloride) which may be toxic and irritating to the respiratory tract.

Conditions Contributing to Hazardous Polymerization: Material not known to polymerize.

10. SPILL OR LEAK PROCEDURES:

Steps To Be Taken If Material Is Released Or Spilled:

This product is toxic to fish. Keep out of lakes, streams or ponds. Contain spills. Remove as much as possible by shoveling and sweeping. Place contaminated materials in closed, labeled containers and store in a safe place to await proper disposal. Do not contaminate water while cleaning equipment or disposing of wastes. Persons performing this work should wear adequate personal protective equipment and clothing.

Waste Disposal Method:

Waste portions of this product and contaminated absorbent materials may be disposed of by incineration provided the following conditions are observed: Incinerate in a suitable oven fed by a mixture of air and methane, at 1100-1200°C temperature; The HCl which may form in the incinerator exhaust gas must be conveyed into an aqueous absorption system containing 18-20% of Ca(OH)₂.

11. INDUSTRIAL HYGIENE CONTROL MEASURES:

Good industrial hygiene practice dictates that indoors work areas be isolated and provided with adequate local exhaust ventilation. Work upwind in out-of-doors batch operations.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT:

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RESPIRATORY: NIOSH – approved dust respirators or pesticide respirators.

EYE: Chemical goggles or face shields.

GLOVES: Wear protective chemical-resistant gloves to minimize skin contact. Special precautions should be taken so product cannot get inside gloves.

OTHER CLOTHING AND EQUIPMENT:

Protective clothing consisting of long sleeve shirt and long pants, should be worn when handling this product. The clothing should be changed at least daily. Persons exposed routinely to this active material should shower prior to leaving work each day. Safety shower and eyewash stations should be provided in all area in which this product is stored and/or handled. Contaminated clothing should be removed and washed thoroughly before re-using.

The information presented herein for consideration, while not guaranteed, is true and accurate to the best of our knowledge. No warranty, guaranty is expressed or implied regarding the accuracy of reliability of such information and we shall not be liable for any loss or consequential damages arising out of the use thereof.