

MATERIAL SAFETY DATA SHEET

SOSTRAM® Corporation
300 Colonial Center Parkway, Suite 230
Roswell, GA 30076

In Case of Emergency, Call
Sostram® Corporation: 770-587-1032
CHEMTREC: 800-424-9300

GENERAL INFORMATION

2-Slight Health Hazard 0-Noncombustible 0-Nonreactive
Above: Ratings based on NIOSH "Identification System for Occupationally Hazardous Materials" (1974).

TRANSPORTATION INFORMATION

This product is regulated for transportation purposes as follows:

IATA (Air): Yes

IMO (Water): Yes

DOT (Land): Yes

Proper Shipping Name: Pesticide Solid, Toxic, N.O.S. (chlorothalonil), 6.1, UN2588, PG I, ERG # 151

Special Provisions: Marine pollutant

Freight class: NMFC Item #102100

SARA TITLE III INFORMATION

313 Inventory Ingredients: Chlorothalonil (98% wt/wt)

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

I. PRODUCT IDENTIFICATION

Product Names: Clortram® P-98M Fungicide

Synonyms: Tetrachloroisophthalonitrile; Chlorothalonil

II. HAZARDOUS INGREDIENTS

The substances listed below are those identified as hazardous chemicals under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

<u>Component</u>	<u>CAS No.</u>
Chlorothalonil	1897-45-6

Exposure Limits for Technical Chlorothalonil Fungicide:

ACGIH-TLV: Not Established

OSHA-PEL: Not Established

III. PHYSICAL DATA

Boiling Point:	>350° C @ 760 mm Hg
Melting Point:	252.1 – 253.6 °C
Freezing Point:	Not applicable
Bulk Density (H ₂ O=1):	0.654
Vapor Pressure:	5.72 x 10 ⁻⁷ torr @ 25°C
Vapor Density (Air = 1):	Not applicable
Solubility in H ₂ O:	0.6 - 0.9 ppm
% Volatiles by Volume:	Not applicable
Evaporation Rate (Butyl Acetate = 1):	Not applicable
Appearance and Odor:	White powder, slightly pungent

IV. FIRE AND EXPLOSION DATA

Flash Point:	Not flammable
Autoignition Temperature:	Not applicable
Flammable Limits in Air, % by Volume:	Lower: Not applicable Upper: Not applicable
Extinguishing Media:	CO ₂ , foam, dry chemical, water
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards:	May decompose under fire conditions, emitting toxic and irritant gases (i.e. hydrogen chloride) to the respiratory tract.

V. HEALTH HAZARD INFORMATION

Oral LD50 (rat):	> 5,050 mg/kg (Category IV) ¹
Dermal LD50 (rat):	> 2,000 mg/kg (Category III)
Inhalation LC50 (4-hour; rat):	> 0.05 mg/liter of air (Category II)
Primary Eye Irritation (rabbit):	Eye irritant; irreversible corneal, iridal and conjunctival effects in unwashed eyes; reversible irritation in washed eyes (Category III)
Primary Dermal Irritation Index (rabbit):	Non-irritant (0.05 / 8.0 Draize score) (Category IV)
Dermal sensitization (guinea pig):	Non-sensitizer

Emergency and First Aid Procedures

IF INHALED: Move person 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.

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 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.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have affected person sip a glass of water if able to swallow. Do not induce vomiting unless told by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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

NOTES TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Persons having a temporary allergic reaction respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Possible 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

¹ Roman numerals refer to EPA pesticide toxicity categories. Further information is available in the [Code of Federal Regulations](#) (40 CFR 156.10).

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.

VI. 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.

Hazardous Polymerization: Material not known to polymerize.

VII. 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.

VIII. INDUSTRIAL HYGIENE CONTROL MEASURES

Ventilation Requirements

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

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

EYE: Splash proof 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, long pants, socks and shoes should be worn when handling this product. 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 eye-wash stations should be provided in all areas in which this product is stored and/or handled. Contaminated clothing should be removed and washed thoroughly before re-using.