

CHEM NUT, INC.

MATERIAL SAFETY DATA SHEET

Chem Nut, Inc
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In Case of Emergency, Call:
Chem Nut, Inc: (888-299-9056)
CHEMTREC: (800) 424-3300

CHLOROTHALONIL 720 AGRICULTURAL FUNGICIDE

I. GENERAL INFORMATION

1-Slight Health Hazard 0-Noncombustible 0-Nonreactive

Above Ratings based on NIOSH "Identification System for Occupationally Hazardous Materials" (1974)

II. TRANSPORTATION INFORMATION

This product is registered for transportation purposes as follows:

	<u>Yes</u>	<u>No</u>
IATA (Air)		X
IMO (Water)		X
DOI (Land)		X

SARA TITLE III INFORMATION

313 Inventory Ingredients: Chlorothalonil (54.0%)

312 Hazards Classification: Acute and Chronic Health *

* See Section V for Health Hazard Information

III. PRODUCT IDENTIFICATION

Product Names: Chlorothalonil 720 Agricultural Fungicide
Synonyms: Tetrachloroisophthalonitrile, Chlorothalon 1, C8Cl4N2

IV. 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>
Tetra Chloroisophthalonitrile	1897-45-6

Exposure Limits for Chlorothalonil 720 Agricultural Fungicide:

ACGIH-TLV:	Not Established
OSHA-PEL:	Not Established
Boiling Point:	760 mm Hg: 100 degrees C (lowest boiling component)
Melting Point:	Not applicable
Freezing Point:	-5 degrees C
Specific Gravity (H2O-1):	1.34
Vapor Pressure:	5.72 x 10 ⁻⁷ torr @ 25 degrees C *
Vapor Density (Air = 1):	Not Determined
Solubility in H2O, % by Wt:	0.6 - 0.9 ppm * Formulation: dispersible in water
% Volatiles by Vol.:	45
Evaporation Rate (Butyl Acetate = 1):	Not Determined
Appearance and Odor:	Liquid, light beige, slight odor
Density at 20 degrees C:	11.15 lbs/gal
pH:	6 to 9

* Based on Chlorothalonil Data

V. FIRE AND EXPLOSION DATA

Flash Point:	Nonflammable
Autoignition Temperature:	Nonflammable
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.

VI. HEALTH HAZARD INFORMATION

Oral LD50:	9 g/kg (rat)
Dermal LD50:	>2 g/kg (rabbit)
Inhalation (4 hour) LC50:	Not available
Primarily Dermal Irritation Index:	Eye irritant (rabbit); reversible corneal, iridal and conjunctival effects, maximum mean score (noted at 24 hours) for rabbits = 19.8/110

Effect of Exposure

Inhalation:	May cause irritation to the respiratory tract.
Skin Contact:	Mildly irritating 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

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 (97%), when fed at high levels in the diet, may have oncogenic potential to the 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.

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

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

VII. 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.

VIII. 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 (shovel up and sweep up), remove contaminated soil. Place 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.

Neutralizing Chemicals

None required

IX. 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

Respiratory:

NIOSH-approved dust respirators or pesticide respirators

Eye:

Chemical goggles or face shields

Gloves:

Wear protective rubber 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 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.

X. SPECIAL PRECAUTIONS

Environmental Hazards

This product is toxic to fish, aquatic invertebrates and marine/estuarine organisms. Do not discharge effluent containing this product directly into lakes, streams, ponds, estuaries, oceans or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the Environmental Protection Agency. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water areas. Apply only to areas specified on the label.

Storage and Disposal:

Do not contaminate water, food or feed by storage or disposal. Open
Open dumping is prohibited.

Storage:

Store in a cool place. Protect from excessive heat.

Pesticide Disposal:

Pesticide wastes may be toxic. Improper disposal of excess pesticide
spray or rinsate is a violation of Federal law. If these wastes cannot
be disposed of by use according to label instructions, contact your
State Pesticide or Environmental Control Agency, or the Hazardous
Waste Representatives at the nearest EPA Regional Office for
guidance.

Container Disposal:

Do not reuse empty container. Triple rinse (or equivalent). Then offer
for recycling or reconditioning or puncture and dispose of in a sanitary
landfill, or incineration, or, if allowed by state and local authorities, by
burning. If burned, stay out of smoke.

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