

FarmSaver.com

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Chemtrec (24 Hours): (800) 424-9300

"For Chemical Emergency"

Spill, Leak, Fire, Exposure or Accident, Call:

Chemtrec (24 Hours): (800) 424-9300

Outside U.S., call collect: (703) 527-3887

MATERIAL SAFETY DATA SHEET**SECTION 1 - PRODUCT IDENTIFICATION**

PRODUCT NAME: Armor Tech CLT 720 (Fungicide)	CHEMICAL NAME (FORMULA): Tetrachloroisophthalonitrile
CHEMICAL CLASS: Chlorinated Benzonitrile Fungicide	

SECTION 2 - HAZARDOUS INGREDIENT INFORMATION

Section 313 of Sara Title III: Ingredients subject to reporting are identified by asterisk (*)

CAS NO.	COMPONENT	%	ACGIH TLV	OSHA PEL	OTHER
1897-45-6	Tetrachloroisophthalonitrile	54.0	N/D	N/D	0.1 mg/m ³

SECTION 3 - PHYSICAL PROPERTIES

BOILING POINT: 212°F	MELTING POINT: N/A	SPECIFIC GRAVITY: 1.33	VAPOR PRESSURE (Chlorothalonil): 5.72 x 10⁻⁷ mmHg @25°C
VAPOR DENSITY (AIR=1): N/D	% SOLUBILITY IN WATER: Dispersible in water	% VOLATILE BY WEIGHT: 34	
APPEARANCE: Off white liquid	ODOR: Slight	pH: 6 - 8	

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT & METHOD: Will not flash	FLAMMABLE LIMITS IN AIR (LFL - UFL): LFL: N/A UFL: N/A
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EXTINGUISHING MEDIA:

Dry Chemical, water spray, foam, carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES:

Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run off. Wear self-contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear).

UNUSUAL FIRE AND EXPLOSION HAZARDS:

May decompose in fire and generate gases that may toxic and irritating.**SECTION 5 - REACTIVITY DATA**

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce toxic carbon and nitrogen oxides, and hydrogen chloride.
CONDITIONS & MATERIALS TO AVOID: None known.

SECTION 6 - PROTECTIVE EQUIPMENT & EXPOSURE CONTROL METHODS

RESPIRATORY PROTECTION: Not required except for applications made in enclosed areas, such as greenhouses. In enclosed areas such as greenhouses, applicators and other handlers must wear a NIOSH-approved respirator with N, P, R or HE filter.				
VENTILATION	LOCAL EXHAUST: NORMAL	MECHANICAL: NORMAL	SPECIAL: NONE	OTHER: NONE
PROTECTIVE GLOVES AND BOOTS: Chemical-resistant gloves, such as nitrile rubber, natural rubber, or butyl rubber. Chemical-resistant footwear plus socks.		EYE PROTECTION: Protective eyewear (e.g., goggles or full-face shield)		

PRODUCT NAME: Armor Tech CLT 720 (Fungicide)

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Coveralls. Long-sleeved shirt and long pants. NIOSH-approved respirator with N, P, R or HE filter when working in enclosed areas such as greenhouses.

WORK/HYGIENIC PRACTICES:

DO NOT get into eyes. Avoid contact with skin. Avoid breathing spray mist. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove PPE immediately after handling this product. Wash outside of gloves before removing. Remove clothing immediately if pesticide gets inside. As soon as possible, wash thoroughly and put on clean clothing. Follow manufacturer's instructions for cleaning maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

SECTION 7 - HEALTH HAZARDS

PRIMARY ROUTES OF ENTRY:

Eyes, skin, inhalation and ingestion.

CARCINOGEN:

**Chlorothalonil – IARC-2B
Possible human carcinogen**

NTP:

N/A

MUTAGENICITY:

N/A

TERATOLOGY (BIRTH DEFECTS):

None observed

EYE CONTACT:

Causes eye irritation. Do not get into eyes.

SKIN CONTACT:

May cause skin irritation. May be potential skin sensitizer. Avoid prolonged contact with skin.

INHALATION:

Avoid breathing spray mist.

INGESTION:

Do not take internally.

ALLERGIC SKIN REACTIONS (Dilute Mix):

This product may produce temporary allergic side effects characterized by redness of the eyes, mild bronchial irritation and redness or rash on exposed skin areas. Persons having allergic reactions should contact a physician.

SECTION 8 - EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT:

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 immediately for treatment advice.

SKIN CONTACT:

Remove contaminated clothing and shoes. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.

INHALATION:

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

INGESTION:

Call a 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 directed to be doctor or poison control center. If vomiting occurs, keep airway clear. Never give anything to an unconscious person.

NOTES TO PHYSICIAN:

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

SECTION 9 - SPILL, LEAK & DISPOSAL INFORMATION

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Clean up spills immediately. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Small Spill: Absorb small spills or sand, vermiculate or other inert absorbent. Place contaminated material in appropriate container for disposal.

Large Spill: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. Pick up wash liquid with additional absorbent and place in a disposable container. After removal, flush contaminated area thoroughly with water. This material should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

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WASTE DISPOSAL METHOD:

DO NOT contaminate water, food, or feed by disposal. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal Law. Wastes resulting from the use of this product that cannot be used according to the label instructions or chemically reprocessed may be disposed of on site or at a landfill or water disposal facility approved for pesticide waste disposal, or in accordance with all applicable Federal, state or local regulations. For further guidance, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

SECTION 10 – ECOLOGICAL INFORMATION

SUMMARY OF EFFECTS:

This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

The chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Those chemical can contaminate water through spray drift. Under conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas within field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

FISH TOXICITY (Technical):

96 hour LC₅₀, Rainbow Trout

0.04 ppm

INVERTEBRATE (Technical):

48 hour EC₅₀, *Daphnia magna*

0.068 ppm

MOVEMENT & PARTITIONING:

In Soil:

In Water:

Bioaccumulation Potential:

Low mobility in soil. Not persistent in soil.

Stable in water.

Low.

SECTION 11 - SHIPPING DATA

DOT PROPER SHIPPING NAME:

Not Regulated.

International Transportation:

By Water: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), Marine Pollutant, 9, UN3082, PGIII

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Health 2

Flammability 1

Reactivity 0

Additional Labeling: None

SECTION 12 - SPECIAL INSTRUCTIONS

SPECIAL INSTRUCTIONS:

Read and follow all label instructions before use. Do not contaminate water, food, or feed by storage or disposal. Do not reuse containers.

SECTION 13 - OTHER INFORMATION/PRECAUTIONS

SARA TITLE 3: SECTION 311/312 CATEGORIZATIONS (40CFR 370):

Acute Health Hazard

Chronic Health Hazard

SARA TITLE 3: SECTION 313 INFORMATION (40CFR 372):

Chlorothalonil (54.0%) (CAS No. 1897-45-6)

CALIFORNIA PROPOSITION 65:

This material is listed as a carcinogen by the State of California under Proposition 65.

COMMON ABBREVIATIONS THAT MAY HAVE BEEN USED: N/A = NOT APPLICABLE NA = NOT AVAILABLE N/D = NOT DETERMINED

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