

SAFETY DATA SHEET

Emergency Contact Information:

AccuStandard, Inc. 1-203-786-5290

Hours: Monday to Friday 8:00am to 5:00pm EST

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 - Product Identifiers

Catalog Name: P-545N

Description: Chlorthiophos

CAS No.: 60238-56-4

1.2 - Relevant Identified Uses of the Substance or Mixture

Laboratory Chemical Reference Material

1.3 - Supplier Details

Company: AccuStandard, Inc. 125 Market St.

New Haven, CT 06513 USA

Telephone Number: 203-786-5290

Fax: 203-786-5287

Email: edocs@accustandard.com

1.4 - Emergency Telephone Number

Emergency Phone #: AccuStandard, Inc.

1-203-786-5290

Hours: Monday to Friday 8:00am to 5:00pm EST

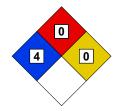
SECTION 2 - HAZARDS IDENTIFICATION

2.1 - GHS Label Elements











Signal Word: Danger

Hazard Codes:

H300 - Fatal if swallowed. (Acute toxicity, oral, category 1)

H310 - May be fatal in contact with skin. (dermal, category 2)

H315 - Irritating to skin. (Skin corrosion/irritation, category 2)

H335 - May be irritating to mucous membrane and upper respiratory system. (Specific target organ toxicity, single exposure; Respiratory tract irritation, category 4)

H401 - Toxic to fish and other water organisms.

Precautionary Codes:

P202 - This product should only by used by persons trained in the safe handling of hazardous chemicals.

P235 - Store in a cool dry place.

P260 - Do not breathe vapor.

P262 - Do not get in eyes, on skin or clothing.

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SECTION 2 - HAZARDS IDENTIFICATION - continued

2.1 - GHS Label Elements - continued

P264 - Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

P280 - Protective gloves must be worn to prevent skin contact.

P284 - Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering and/or administrative controls should be implemented to reduce exposure.

P331 - Ingestion: Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

P338 - Eye contact: Immediately flush with plenty of water. After initial flushing, remove and contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.

P360 - Skin contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

P404 - Store in a tightly closed container.

2.2 - Other Hazards

2.2.1 - Symptom of Exposure Health/Environment

Cholinesterase inhibitor. Can cause heavy salivation and secretion in the lungs, lachrymation, blurred vision, involuntary defacation, diarrhea, tremor, ataxia, sweating, hypothermia, lowered heart rate and/or a fall in blood pressure.

May cause headache, dizziness, gastrointestinal disturbances, and convulsions.

May cause muscle spasms and/or cramps.

Toxic to fish and other water organisms. (H401)

May cause long-term adverse effects in the aquatic environment.

2.2.2 - Potential Health Effects

May be irritating to eyes.

Irritating to skin. (Skin corrosion/irritation, category 2)

May be fatal in contact with skin. (dermal, category 2)

May be irritating to mucous membrane and upper respiratory system. (Specific target organ toxicity, single exposure; Respiratory tract irritation, category 4)

May be harmful if inhaled. (Acute toxicity, inhalation, category 5)

Fatal if swallowed. (Acute toxicity, oral, category 1)

2.2.3 - Routes of Entry

Inhalation, ingestion or skin contact.

2.2.4 - Carcinogenicity

This product is or contains a component that is not listed (ACGIH, IARC, NTP, OSHA) as a cancer causing agent.

SECTION 3 - COMPOSITION / ANALYTES DATA

Description: Chlorthiophos

Synonyms: N/A

Molecular Weight: 360

Molecular Formula: C11H15Cl2O3PS2

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SECTION 3 - COMPOSITION / ANALYTES DATA - continued

			ACGIH -TLV (mg/m³)			OSHA -PEL (mg/m³)		
Analyte	CAS Number	% Concentration	TWA	STEL	Skin	TWA	STEL	Skin
Chlorthiophos	60238-56-4	100.000						

SECTION 4 - FIRST AID MEASURES

4.1 - First Aid Procedures - General

Get medical assistance for all cases of overexposure.

4.2 - Eye Contact

Eye contact: Immediately flush with plenty of water. After initial flushing, remove and contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. (P338)

4.3 - Skin Contact

Skin contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse. (P360)

4.4 - Inhalation

Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

4.5 - Ingestion

Ingestion: Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. (P331)

SECTION 5 - FIRE FIGHTING MEASURES

5.1 - Flammable Properties

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

5.2 - Extinguishing Media

Use alcohol foam, carbon dioxide, dry chemical, or water spray when fighting fires involving this material.

5.3 - Protection of Firefighters

As in any fire, wear self-contained breathing apparatus pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 - Spill Response

Wear suitable protective equipment listed under Exposure Controls / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if this can be done without risk. Dispose as hazardous waste. Comply with Federal, State and local regulations.

SECTION 7 - HANDLING AND STORAGE

Store in a tightly closed container. (P404)

Store in a cool dry place. (P235)

Do not breathe vapor. (P260)

Avoid inhalation.

Use with adequate ventilation. (P271)

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SECTION 7 - HANDLING AND STORAGE - continued

Do not get in eyes, on skin or clothing. (P262)

Avoid prolonged or repeated exposure.

This product should only by used by persons trained in the safe handling of hazardous chemicals. (P202)

SECTION 8 - EXPOSURE CONTROLS

8.1 - Engineering Controls/PPE

Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available. (P264)

8.2 - General Hygene Considerations

Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering and/or administrative controls should be implemented to reduce exposure.

Material should be handled or transferred in an approved fume hood or with adequate ventilation.

Protective gloves must be worn to prevent skin contact. (P280)

(Butyl, viton or equivalent)

Safety glasses with side shields must be worn at all times.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid

Odor: N/A

Odor Threshold: N/A

pH: N/A

Melting Point: 69 °C Boiling Point: 367 °C

Flash Point: > 212 °F / > 100 °C

Evaporation Rate (Butyl Acetate=1): N/A

Flammability Class: N/A

Lower Flammability Level: N/A Upper Flammability Level: N/A

Vapor Pressure: < 0.001 mmHg @ 25 °C

Vapor Density (Air = 1): N/A
Specific Gravity: 1.461 g/cm3
Solubility in Water: 0.597 mg/L
Partition Coefficient: log Kow: 4.82
Autoignition Temperature: N/A
Decomposition Temperature: N/A

Viscosity: N/A
VOC Content: N/A
Percent Volatile: N/A

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SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid: Oxidizers

Hazardous Decomposition: Oxides of carbon, sulfur, and phosphorus; Hydrogen chloride; Hydrogen sulfide

Hazardous Polymerization: Will not occur

Condition to Avoid: Excessive heat

SECTION 11 - TOXICOLOGICAL INFORMATION

Human Health Toxicity

See section 2 for specific toxicological information for the ingredients of this product.

LD50 (Oral): Rat - 7.8 mg/kg LD50 (Dermal): Rabbit - 50 mg/kg

LC50 (Inhalation): N/A

No other information related to the toxicological properties of this product is available at this time.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Toxicity

By complying with sections 6 and 7 there should be no release to the environment.

LC50 (Fish): N/A

EC50 (Aquatic Invertebrate): N/A

BCF: N/A

No other information related to the ecological properties of this product is available at this time.

SECTION 13 - DISPOSAL CONSIDERATIONS

Recycle or incinerate at any EPA approved facility or dispose in compliance with Federal, State and local regulations. Empty containers must be triple-rinsed prior to disposal.

SECTION 14 - TRANSPORT INFORMATION

Transportation Information (DOT/IATA)

UN Number: UN2810 UN Shipping Class: 6.1 UN Packing Group: I

UN Proper Shipping Name: Toxic liquid, organic, n.o.s. (Chlorthiophos)

Poison by Inhalation: No Marine Pollutant: Yes

SECTION 15 - REGULATORY INFORMATION

The CAS number of this product is NOT listed on the TSCA Inventory.

This product is NOT subject to SARA section 313 reporting requirements.

For laboratory, research and development use only. Not for manufacturing or commercial purposes.

In addition to federal and state regulations, local regulations may apply. Check with your local regulatory authorities.

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SECTION 16 - OTHER INFORMATION

This document has been designed to meet the requirements of OSHA, ANSI, GHS and CHIPs regulations.

The statements contained herein are offered for informational purposes only and are based on technical data that we believe to be accurate. The manufacturer will not assume any liability for the accuracy and completeness of this information. Final determination of the suitability of the material is the responsibility of the user. Although certain hazards are described herein, the user should not presume that these are the only hazards that exist. Since conditions and manner of use are outside of the manufacturers control, we make

NO WARRANTY OF MERCHANTABILITY, EXPRESSED OR IMPLIED, AND ASSUME NO LIABILITY RESULTING FROM ITS USE.

Legend: N/A = Not Available ND = Not Determined NR = Not Regulated

Alteration of any information contained herein without written permission from the manufacturer is strictly prohibited.

HMIS/NFPA HAZARD INDEX

- 0 Minimal
- 1 Slight
- 2 Moderate
- 3 Serious
- 4 Severe
- * Additional Hazard

GHS HAZARD INDEX

Category 1 - Most Severe Category 5 - Least Severe

**** End of Document ****

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