

MATERIAL SAFETY DATA SHEET

Carbathos 2% DP

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE AND COMPANY

Trade Name: Carbathos.

Common Name: Chlorpyrifos

CAS RN: 2921-88-2

Chemical Name: O, O-diethyl O- (3,5,6-trichloro-2-pyridinyl) phosphorothioate

Chemical family: Organophosphorus

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT NAME	QUANTITY	FUNCTION
Chlorpyrifos	2%	Active Ingredient Carrier
Talc Powder	98%	
Total	100%	

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview:

- Cholinesterase inhibitor may be fatal if swallowed.
- Harmful if absorbed through skin or inhaled.
- Causes slight eye irritation and mild skin irritation.
- Avoid breathing product vapors or spray mist.
- Avoid contact with eyes, skin or clothing.
- Keep out of reach of children.

Symptoms of over exposure are headaches, nausea, vomiting, cramps, weakness, blurred vision, pin point pupils, tightness in chest, labored breathing, nervousness, sweating, watering of eyes, drooling, muscle spasms and coma.

Potential Health Hazards:

Eye- Irritating, and may injure eye tissue if not removed promptly.

Skin- Harmful if absorbed through the skin. Large exposures could be fatal.



Inhalation- Vapor or mist concentrations may be harmful if inhaled. High concentrations could be fatal.

Ingestion- May be fatal if swallowed.

Potential Physical Hazards: Combustible liquid and vapor.

SECTION 4- FIRST AID MEASURES

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF SWALLOWED: Do not induce vomiting. Call a physician immediately.

IF IN EYES: Flush eyes with plenty of water for 15 minutes. Call a physician.

NOTE TO PHYSICIAN: This product is an organophosphorus ester that inhibits cholinesterase.

In cases of severe acute poisoning, the decision of whether to induce vomiting or not should be made by the attending physician. If lavage is performed, endotracheal and/or esophageal control is suggested. Danger from lung aspiration must be evaluated against toxicity when considering emptying the stomach.

ANTIDOTE: Atropine only by injection is an antidote. Oximes such as 2-PAM/protopam may be therapeutic but should only be used in conjunction with atropine.

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

FIREFIGHTING INSTRUCTIONS: Evacuate area and fight fire from a safe distance. Approach from upwind to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible.

Explosive vapor could form from ruptured containers. Foam fire extinguishing system is preferred to prevent environmental damage from excessive water run off. If water is used, avoid heavy hose streams. If possible, dike and collect water used to fight fire to prevent minimize run off.

FIREFIGHTING EQUIPMENT: Self-contained breathing apparatus with full-face piece. Wear full fire fighting turnout gear (Bunker gear).

HAZARDOUS COMBUSTION PRODUCTS: When heated to decomposition, it emits toxic fumes of

NO_x, PO_x, SO_x, Cl

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, using precautions described in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb spill with inert material such as dry sand, vermiculite or fuller's earth, then place in a chemical waste container. Rinse area with dilute soda ash and place rinsate into chemical waste container.

LARGE SPILL: Same as for small spills; may neutralize with dilute alkaline solutions of soda and ash and place into chemical waste container. Do not allow material to run off into soil, drainage systems, or bodies of water. Notify and consult with proper regulatory authorities.

SECTION 7 - HANDLING AND STORAGE

Store in cool, clean, ventilated, fireproof storage area. Keep away from heat, spark, open flame and incompatible materials. (Strong oxidizing agents). Protect containers against physical damage.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION - Safety glasses.

CLOTHING - Long-sleeved shirt and long pants. Shoes plus socks.

GLOVES - Chemical-resistant such as barrier laminate or viton.

RESPIRATOR - Use breathing apparatus.

USER SAFETY RECOMMENDATIONS:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: - Dust Powder

Heat stability: - All chemical and physical properties of the product are complying with its specification after 14 days at 52 + 2°C.

Storage stability: - Accepted (CIPAC J p.128 MT46.3)

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Normally stable. However, product will decompose if heated above 300 °F for an extended period, which significantly increases the risk of explosion.

CONDITIONS TO AVOID: Avoid temperatures above 100°F (60°C).

INCOMPATIBILITY WITH OTHER MATERIALS: Strong alkalis, amines and oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, Ethyl sulfide, Diethyl sulfide, Nitrogen oxides. Especially during combustion.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral LD₅₀: for rats 135-160, guinea pigs 504, rabbits 1000-2000 mg/kg.

Dermal LD₅₀: for rabbits >2000 mg/kg; for rats >2000 mg/kg.

Inhalation LC₅₀ (Rats): LC₅₀ (4-6 h) for rats >0.2 mg/l (14 ppb).

Eye Irritation (Rabbits): - Slight eye irritant

Skin Irritation (Rabbits): - Mild skin irritant

Sensitization (guinea pigs): - Not sensitizer

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing cholinesterase depression.

CARCINOGEN STATUS:

OSHA - Not listed

NTP - Not listed

IARC - Not listed

MUTAGENIC DATA: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

ADDITIONAL DATA: Chlorpyrifos is not known to exhibit reproductive or birth defects.

Repeated or prolonged low-level exposures may cause sensitization to subsequent exposures that mimic acute exposures. and non teratogenic.

ADI: 0.01 mg/kg b.w.

TOXICITY CLASS: WHO (a.i.) II

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This pesticide is extremely toxic to fish, birds, bees and other wildlife. Do not apply directly to water, or to areas where surface water is

present. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites.

FISH TOXICITY:

LC₅₀ (96 h) for bluegill sunfish 0.002-0.010, rainbow trout 0.007-0.051, roach 0.25, fathead minnow 0.12-0.54 mg/l.

AVIAN TOXICITY:

Acute oral LD₅₀ for mallard ducks 490, house sparrows (*Passer domesticus*) 122, chickens 32- 102 mg/kg. Dietary LC₅₀ (8 d) for bobwhite quail 423 ppm.

BEE TOXICITY: Toxic to bees. LD₅₀ (oral) 360 ng/bee; (contact) 70 ng/bee.

WORMS: LC₅₀ (14 d) for *Eisenia foetida* 210 mg/kg soil.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE: Pesticide wastes are toxic and hazardous. Dispose of in accordance with applicable and local laws and regulations. Do not discharge or pour into soil, drainage system or bodies of water.

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 (plastic containers). If burned, stay out of smoke.

SECTION 14 - TRANSPORT INFORMATION

DESCRIPTION: Organophosphorus Pesticides, Solid, Toxic.

UN NUMBER: UN 2783

CLASS: 6.1

PACKING GROUP: PG III

PRIMARY/SUBSIDIARY LABEL: Keep Away From Food

PRIMARY/SUBSIDIARY PLACARD: Keep Away From Food

SECTION 15 - REGULATORY INFORMATION

Risk Symbols

T-Toxic, N - Dangerous for the environment

Risk Phases

R24/25 Toxic in contact with skin and if swallowed

R50 Very toxic to aquatic organisms.

R53 May cause long-term adverse effects in the aquatic environment.

SECTION 16 - OTHER INFORMATION

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