

SECTION 3. HAZARDS IDENTIFICATION

EFFECTS OF OVEREXPOSURE

Symptoms of cholinesterase inhibition can be occurred, such as headache, dizziness, blurred vision, weakness, nausea, cramps, diarrhea, discomfort in the chest, nervousness, sweating, miosis (pinpoint pupils), tearing, salivation, pulmonary edema, uncontrollable muscle twitches, convulsions, cyanosis, coma, and loss of relaxes and sphincter control.

- harmful if swallowed
- avoid contact with skin or clothing
- avoid breathing vapors or spray mist
- flammable
- keep out of reach of children

POTENTIAL HEALTH EFFECTS

EYES:

The undiluted product is moderately irritating to the eyes. Eye contact may include discomfort, tearing, swelling, redness, and blurred vision.

SKIN:

This substance is a moderate skin irritant. Skin irritation may include discomfort, redness, swelling, and possibly blistering. If absorbed through the skin, this substance is considered practically non-toxic to internal organs.

INGESTION:

Depending upon the amount of product swallowed, this substance can produce signs and symptoms of systemic poisoning. In addition the product contains a petroleum solvent that can directly enter the lungs if it is swallowed (this is called aspiration). This can occur during the act of swallowing or when vomiting the substance. Once in the lungs, the petroleum solvent is very difficult to remove and can cause severe injury to the lungs and death. See Toxicological Information.

INHALATION:

Prolonged or repeated inhalation exposure to the product vapor or spray mist may be harmful. See Toxicological Information.

COMMENTS HEALTH:

Depending upon the extent and degree of overexposure to the product, signs and symptoms of cholinesterase inhibition can result following either ingestion, skin contact or inhalation routes of exposure. Signs and symptoms of cholinesterase inhibition can also result from either acute (one time), subchronic (repeated short-term) and chronic (daily life-time) overexposure to the product.

Signs and symptoms of cholinesterase inhibition usually occur within 12 hours following overexposure. These effects may include, but may not be limited to, headache, dizziness, weakness, nausea, vomiting, diarrhea, constriction of the pupil of the eye, blurred or dark vision, excessive salivation or nasal discharge, profuse sweating and abdominal cramps. Incontinence, unconsciousness, convulsions and breathing difficulties are indicative of severe poisoning.

In untreated severe poisoning, death is due to respiratory failure or cardiac arrest. This product also contains a petroleum distillate. Depending upon the degree of overexposure, the systemic toxicity of the product may be of less concern than the potential clinical complications that can result from aspiration of the petroleum distillate into the lungs if the product is either swallowed or vomited.

SECTION 4.FIRST AID MEASURES

EYES:

Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.

Call a poison control center or doctor for treatment advice.

SKIN:

If on skin or clothing, take off contaminated clothing.

Rinse skin immediately with plenty of water for 15 to 20 minutes.

Call a poison control center or doctor for treatment advice.

INGESTION:

If swallowed, call a poison control center or doctor immediately for treatment advice. Have person sip glass of water if able to swallow.

Do not induce vomiting unless told to by a poison control center or doctor.

Never give anything by mouth to an unconscious person.

INHALATION:

Move person to fresh air. If person is not breathing, call ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.

Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN:

This material contains a cholinesterase inhibitor.

Measurement of blood cholinesterase activity may be useful in monitoring exposure.

If signs of cholinesterase inhibition appear, atropine sulfate is antidotal.

2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone.

Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid which can cause pneumonitis.

SECTION 5.FIRE FIGHTING MEASURES

Flash point: >62°C

Flammability: Not auto flammable

EXTINGUISHING MEDIA: CO₂, Dry Chemical, Foam and Water Fog.

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition may produce dimethylsulfide, sulfur dioxide, carbon monoxide, carbon dioxide, phosphorouspentoxide and nitrogen oxides.

FIRE FIGHTING PROCEDURES:

Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive violence.

Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 85 F.

Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting.

Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and fire fighting equipment before reuse.

SECTION 6.ACIDENTAL RELEASE MEASURES

SMALL SPILL:

Soak up spilled material with paper towels or other absorbent material and discard in trash. Product is highly flammable.

Keep all sources of ignition away from spill.

LARGE SPILL:

Eliminate all sources of ignition in vicinity of spill or released vapor.

Liquid spills on floor or other impervious surfaces should be contained or diked, and should be absorbed with attapulgite, bentonite or other absorbent material.

Collect contaminated absorbent, place in plastic-lined metal drum and dispose of in accordance with instructions provided under Section 13. "DISPOSAL".

Thoroughly scrub floor or other impervious surface with a strong industrial type detergent solution and rinse with water.

For liquid spills that soak into the ground, contact the applicable Federal, State and or County Health Dept. for disposal recommendations. If disposal is required then refer to Section 13 "DISPOSAL" for instructions.

Leaking containers should be separated from non-leakers and either the container or its contents transferred to a drum or other non-leaking container and disposed of in accordance with instructions provided under Section 13 "Disposal". Any recovered spilled liquid should be similarly collected and disposed of.

Do not contaminate water, foodstuffs or feed by storage or disposal.

SECTION 7. HANDLING AND STORAGE

Store the material in a well ventilated, secure area out of reach of children and domestic animals. Do not store food, drink in areas where they may become contaminated with this material. Keep container tightly closed. Keep away from heat, sparks and flames. Wash thoroughly after handling.

SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

EYES AND FACE:

Do not get this material in your eyes. Eye contact should be avoided by wearing chemical goggles or a face shield.

SKIN:

Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including chemical resistant gloves.

RESPIRATORY:

Handling of the undiluted product is not likely to present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material during manufacture or handling which produces a heavy vapor or mist, workers should put on respiratory protection equipment. Consult respirator manufacturer to determine appropriate type of equipment. Observe respirator use limitations specified by NIOSH MSHA or the manufacturer.

For application of product diluted in accordance with label instructions, no special respiratory protection is required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light yellow powder with garlic odor
Dry sieve test:	98% pass through 75µm
Corrosion:	Not corrosive
Solubility:	In water 145mg/l (25 °C) (tech).
Flash point:	>62°C

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal temperatures and storage conditions.

Condition to avoid: Extremely heat

Materials to avoid: Strong oxidizers

Polymerization: May occur at temperatures above 100°C.

Hazardous decomposition products:

Decomposes on heating or on burning producing toxic fumes including phosphorous oxides and sulfur oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Ingestion: Acute Oral LD50 for rats >2000 mg/kg

Dermal: Acute Dermal LD50 for rabbits >4000 mg/kg

Skin contact: Slight irritating to skin (rabbits)

Eye contact: Slight irritating to eye (rabbits)

Skin sensitization: Not a skin sensitizer (Guinea pig)

Other: Non-mutagenic, non-teratogenic; no adverse effect on reproductive performance. Not neurotoxic.

Toxicity class: WHO (a.i.) III; EPA III

SECTION 12. ECOLOGICAL INFORMATION

This product is highly toxic to fish and honeybee. LC50 (96h) for bluegill sunfish 0.1, largemouth bass 0.28mg/l. LD50 (topical) 0.71µg/bee. Keep out of lakes, streams, ponds, tidal marshes, and estuaries. Do not contaminate water by cleaning of equipment or disposal of equipment wash water. Moderately toxic to Birds, LC50 for bobwhite quail 3500, ring neck pheasant 4320mg/kg diet.

SECTION 13. DISPOSAL INSTRUCTION

FOR LARGE SPILLS:

Material collected that cannot be reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures.

PRODUCT DISPOSAL:

If necessary to dispose of partially filled product container, securely wrap it in several layers of newspaper and discard in trash.

EMPTY CONTAINER:

Do not reuse container. Rinse thoroughly before discarding in trash.

SECTION 14. TRANSPORT INFORMATION

Transport Classification: Road & Rail (ADG), Sea (IMDG)

UN NO.: 2761

Shipping Name: Pesticide, powder, toxic, N.O.S. (contains malathion)

Packing Group: III

Other Info: Malathion, Marine Pollutant

SECTION 15. REGULATORY INFORMATION

Acute: No

Chronic: No

Fire: Yes

Reactivity: No

Read and follow all label directions.

SECTION 16. OTHER INFORMATION

The data given here is based on current knowledge and experience.

The purpose of this safety data sheet is to describe the products in terms of their safety requirements.

Use according to label instructions.