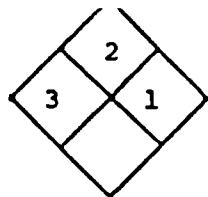


HOPKINS AGRICULTURAL CHEMICAL COMPANY
P.O. BOX 7532 MADISON, WISCONSIN 53707

NFPA



OSHA APPROVED AS ESSENTIALLY SIMILAR TO OSHA-20 (MAY 1972)

MATERIAL SAFETY DATA SHEET

NAME Malathion 57% EL EPA REG. # 2393-280 EST. # Various

Insecticide-B

HAZARD CLASSIFICATION

FIRE TOXICITY ODOR REACTIVITY CORROSIVENESS

HAZARD CODE:

CHEMICAL NAME AND SYNONYMS	Mixture	CHEMICAL FAMILY
TRADE NAMES Malathion, CYthion® (Trade- mark of American Cyanamid Co.)	FORMULA	Mixture
INGREDIENTS:		CAS No.

Malathion (0,0-Dimethyl dithiophosphate of diethyl mercaptosuccinate 57.00% 121-75-5
Xylene-range aromatic solvent 29.36% 25551-13-7 and
Inert ingredients from Malathion Technical. 3-9% 64742-95-6
Emulsifier 3-9%

TYPICAL PROPERTIES:		ODOR aromatic solvent and mercaptan
PHYSICAL FORM	liquid	ODOR THRESHOLD NA
MOL. WT.	NA	COLOR clear golden or amber
MELTING PT.	NA	BOILING PT. (760 mm Hg) 300° F (solvent)
VAPOR PRES.	not available	SPECIFIC GRAV. about 1.11
LBS./GAL. (68F)	about 9.26	BULK DENSITY NA
VAPOR DENSITY	heavier than air, (Solvent	SOLUBILITY IN WATER emulsifies
REFRACTIVE INDEX	NA 3.66)	

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT CLOSED CUP 100°F./37.8°C. min.	FLAMMABLE LIMITS (LEL-UEL) 1.1% - 6.6% (Solvent)
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EXTINGUISHING MEDIA
Dry chemical, foam, or carbon dioxide preferred. On large fires, water spray may be necessary, but large amounts of water not indicated.

SPECIAL FIRE FIGHTING PROCEDURES
Use water in fine spray to cool unbroken containers to prevent bursting from excessive pressure. Self-contained breathing apparatus and rubber protective clothing should be worn. Dike area to prevent water runoff.

UNUSUAL FIRE AND EXPLOSION HAZARDS Firefighting should be done from upwind to minimize possibility of exposure to pesticide or fumes. Evacuate people downwind as appropriate. Heavier than air vapors. Violent rupture of containers from

HEALTH HAZARD DATA heat-induced overpressurization.

THRESHOLD LIMIT VALUE
(Malathion) 10 mg/M³, (Solvent) 100 ppm TOXICITY (Malathion) Acute LD₅₀ (Rat)
ORAL 599 mg/kg

EFFECTS OF OVEREXPOSURE Possible local irritation. Cholinesterase inhibition as manifested in headache, giddiness, blurred vision, nervousness, weakness, nausea, cramps, chest discomfort, sweating, tearing, excessive salivation, twitches, convulsions. Ingestion of one ounce or more of solvent may be fatal.

EMERGENCY AND FIRST AID PROCEDURES In case of suspect symptoms, get medical attention. In case of skin contact, wash contaminated area with soap and water. In case of eye contact, flush with water for at least 15 minutes and get medical attention. If swallowed, do not induce vomiting without the advice of physician (contains petroleum solvent). Get medical attention. Cautious gastric lavage with cuffed endotracheal tube may be indicated. (Note to Physician: If poisoning symptoms persist, administer atropine sulfate, 2-4 mg. i.v. repeating at 5-10 minute intervals until signs of atropinization occur.) In case of inhalation, remove to fresh air and assist respiration as indicated. Get medical attention if indicated.

NA = Not applicable

REACTIVITY DATA

STABILITY	UNSTABLE STABLE X	CONDITIONS TO AVOID High temperatures (above 120° F) for long periods.
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INCOMPATIBILITY (MATERIALS TO AVOID)

Prolonged storage at high temperatures leads to nonhazardous decomposition. Avoid contact with strong alkalies and strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition may produce carbon monoxide, carbon dioxide, sulfur dioxide, and/or phosphorous trioxide.

HAZARDOUS POLYMERIZATION	WILL OCCUR NOT OCCUR X	CONDITIONS TO AVOID
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SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE OF SPILLS OR LEAKS: Avoid contact. Eliminate ignition sources. Confine spill by diking with sand, soil, or other suitable materials. Soak up spill with absorbent material such as sawdust or vermiculite; then place this contaminated material in leakproof containers for disposal as below. Decontaminate surface with solution of detergent, bleach, and water. Keep out of bodies of water and sewer.

STEPS FOR DISPOSAL OF WASTES: Dispose of wastes by burying in a landfill approved for pesticides.

STEPS FOR CONTAINER DISPOSAL: Triple rinse and destroy by perforating or crushing and bury in a safe place away from water supplies. Large drums may be offered for reconditioning.

PROTECTION INFORMATION

VENTILATION Adequate ventilation required. Do not permit vapors to move to edible products areas.

RESPIRATORY EQUIPMENT Respirator for use with pesticide and solvent vapors recommended. Use MESA/NIOSH approved equipment.

PROTECTIVE CLOTHING EQUIPMENT

Rubber gloves and rubber shoe covers recommended.

EYE PROTECTION EQUIPMENT

Goggles (splashproof) and facilities for eyewash recommended.

STORAGE OR HANDLING PRECAUTIONS

PRECAUTIONS Keep containers tightly closed to avoid contamination with water. Store in a cool, dry place away from heat and open flame.

OTHER PRECAUTIONS Do not hold partially filled containers in storage for extended periods of time. Do not contaminate food, feed or human contact articles by storage or disposal. Apply only as specified on the label.

SUPPLIER

Hopkins Agricultural Chemical Company

EMERGENCY TELEPHONE # 608-221-6211. If no answer 608-233-5039 (Mid-Wisconsin Security).

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HOPKINS AGRICULTURAL CHEMICAL CO.

Research, Chemistry &
Regulatory Compliance

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Regulatory Compliance Specialist

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Add CAS 6/83
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