

MATERIAL SAFETY DATA SHEET

MALATHION

IDENTIFICATION

Trade Name : Wesco Malathion 84 & Wesco Malathion 57
Chemical Name : O, O-dimethyl-S- (1,2-di (ethoxycarbonyl)-ethyl) Phosphorodithioate
Synonyms : CYTHION

HAZARDOUS INGREDIENTS

Active Ingredient : Malathion technical
Emulsifier : Organic Sulfonates.
Solvent : Xylene.

OCCUPATIONAL EXPOSURE LEVEL

OSHA TWA (skin) : 10 mg/m³
ACGIH TWA (skin) : 10 mg/m³
NIOSH Recommended 10 hour TWA = 15 mg/m³

CHEMICAL & PHYSICAL DATA (TECHNICAL)

Chemical Family : Organophosphates
Molecular Formula : C₁₀H₁₉O₆P₂S₂
Molecular Weight : 330.36
Appearance : Colorless to pale yellow liquid with slight aromatic odour.
Boiling Point : 156°C to 157°C at 0.7 mm Hg
Specific Gravity : 1.23 at 20°C (Technical)
Solubility : In water at 25°C = 148.2 mg/litre
Soluble in alcohol's, ethers, ketones, esters, benzene, aromatic hydrocarbons. Limited solubility in petroleum oils.

FIRE AND EXPLOSION HAZARD

Fire hazard when exposed to heat or flame
Technical Material; Flash Point (open cup): >163°C
Emulsion Concentrate; Flash Point (open cup): >30°C
Firefighting Media: Dry chemical, carbon dioxide, and halon, water spray or standard foam.

REACTIVITY

- Reactivity : Stable under normal temperatures and pressures.
Incompatibilities : Copper, iron and lead; may corrode.
May attack plastic, rubber or tinplate coatings.
Polymerization : Hazardous polymerization products have not been reported to occur under normal temperatures and pressures.
Thermal Decomposition : May produce dimethyl sulfide, sulphur dioxide, carbon monoxide, carbon dioxide, and phosphorus pentoxide and nitrogen oxides.
Materials to avoid : Strong alkalis and strong oxidizing agents.

TOXICOLOGY

- Acute Oral LD50 rats: 5500 mg/kg
Acute Dermal LD50 rats: >2000 mg/kg

TRANSPORT CLASSIFICATION

- IMDG: 9/III
UN Number: 3082

HEALTH HAZARDS

- WHO Classification: Class II
ADI WHO/FAO: 0.02 mg/kg/day
MRL/CODEX: raw cereals, lettuce, cabbage, spinach = 8 mg/kg
RP/SP (Risk and Safety Phrase):
R22: Harmful if swallowed
R23/24/25: Toxic by inhalation, in contact with skin and if swallowed
S1/2: Keep locked up and out of reach of children
S13: Keep away from food, drink and animal feeding stuff
S20/21: When using do not eat, drink or smoke
S24: Avoid contact with skin
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection
S42: During spraying, wear suitable respiratory equipment
S45: In case of accident or if you feel unwell, seek medical advice immediately.
Show the label where possible.

PREVENTIVE MEASURES

(a) Transportation

Transport in secure and properly labeled containers away from foodstuff.

(b) Storage

Store in well-ventilated area away from foodstuff and flammable materials. Keep under lock and key.

(c) Spill and Leak Procedures

Do not touch spilled material. Stop leak if you can without risk. For small spills, take up with sand or other absorbent material and place in containers for later disposal. For larger spills dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area and deny entry.

FIRST AID

For inhalation, remove from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration, maintain airway and blood pressure and administer oxygen if available. For skin contact, remove contaminated clothing immediately. Wash contaminated areas with soap and water. For eye contact, irrigate eyes with clean water or saline solution. For ingestion, induce vomiting. If patient is unconscious, do not give anything orally and do not induce vomiting.

DISPOSAL

Disposal of pesticide and pesticide containers should be in accordance to local legislative requirements.

ECOLOGICAL INFORMATION

Malathion is biodegradable. It undergoes rapid degradation in the environment.

Toxic to bees. Toxic to fish and birds.

Acute Toxicity: Fish (Rainbow trout; Salmon gairdneri) 96 hour LC₅₀ = 0.200 mg/litre

Birds (Japanese quail), LD₅₀ = 400 mg/kg

Bees, topical; 24 hour LD₅₀ = 0.27 µg/bee

Bees, oral; 24 hour LD₅₀ = 0.38 µg/bee

Dated: 1st Sept. 2001

IMPORTER

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