

MATERIAL SAFETY DATA SHEET
Acimeltox 50 WP

IDENTIFICATION OF THE SUPPLIER:

AGRO CHEMICAL INDUSTRIES Ltd.
P.O.Box 183020 Amman 11118 Jordan
Tel.: +962 6 5548224/5
Fax.:+962 6 5548220
E-mail: info@aci.com.jo

PRODUCT IDENTIFICATION:

Common name: Metalaxyl 15% + Copper oxychloride 35% w/w.

Product Name: Acimeltox 50 WP (fungicide).

Chemical name:

Metalaxyl: methyl N-(methoxyacetyl)-N-(2,6-xylyl)-DL-alaninate.

Copper oxychloride: dicopper chloride trihydroxide.

Chemical formula:

Metalaxyl: C₁₅H₂₁NO₄

Copper oxychloride: Cl₂Cu₄H₆O₆

Molecular weight:

Copper oxychloride: 213.6

Metalaxyl: 279.3

PRODUCT COMPOSITION:

Active Ingredient:	CAS #	% w/w
Metalaxyl	[57837-19-1]	15% w/w
Copper oxychloride	[1332-40-7]	35% w/w
Inert ingredient:		
Wetting agent		2.5% w/w
Dispersing agent		3% w/w
China clay		up to 1 kg



HAZARD IDENTIFICATION:

Inhalation

Short term exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

Skin Contact:

Short term exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be irritating, but is unlikely to cause anything more than mild transient discomfort.

Eye Contact:

Short term exposure: Available data shows that this product is not harmful. However product may be irritating to eyes, but is unlikely to cause anything more than mild transient discomfort.

Ingestion:

Short term exposure: Available data shows that this product is not harmful. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

Carcinogen Status:

ASCC: No significant ingredient is classified as carcinogenic by ASCC.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

FIRST AID MEASURE:

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product.

- **If swallowed:** give one to glass of water to induce vomiting and call a physician immediately.
- **If on skin:** remove contaminated clothing immediately and wash the skin with soap and water.
- **If inhaled:** remove victim to fresh air, apply artificial respiration if indicated.
- **If on eyes:** flush eyes with plenty of water for at least 15 min., call the physician if irritation persists.

FIRE FIGHTING MEASURES:

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Fire decomposition products from this product may be toxic if inhaled.

Take appropriate protective measures.

Extinguishing Media: Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Not Applicable

Upper Flammability Limit: No data.

Lower Flammability Limit: No data.

Autoignition temperature: No data.

Flammability Class: No data.

ACCIDENTAL RELEASE MEASURES:

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labeled containers for recycling or salvage, and dispose of promptly. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal.

Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

HANDLING AND STORAGE:

Handling: Keep exposure to this product to a minimum, and minimize the quantities kept in work areas. The measures detailed below under "Storage" should be followed during handling in order to minimize risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section stability and reactivity.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this class of poison. Make sure that containers of this product are kept tightly closed. Make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section 10. Check packaging – there may be further storage instructions on the label.

STABILITY AND REACTIVITY:

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C.

Incompatibilities: strong acids, strong bases, strong oxidising agents.

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death. Hydrogen cyanide poisoning signs and symptoms are weakness, dizziness, headache, nausea, vomiting, coma, convulsions, and death. Death results from respiratory arrest. Hydrogen cyanide gas acts very rapidly; symptoms and death can both occur quickly.

Polymerisation: This product is unlikely to undergo polymerisation processes.

EXPOSURE CONTROLS AND PERSONAL

Exposure Limits	TWA (mg/m ³)	STEL (mg/m ³)
-----------------	--------------------------	---------------------------

Exposure limits have not been established by ASCC for any of the significant ingredients in this product.

The ADI for Metalaxyl is set at 0.03 mg/kg/day. The corresponding NOEL is set at 3 mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, June 2002.

Ventilation: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimized.

Eye Protection: Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product. See below for suitable material types.

Protective Material Types: There is no specific recommendation for any particular protective material type.

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask. Otherwise, not normally necessary.

TOXICOLOGICAL INFORMATION

Toxicity: Acute toxicity: The oral LD50 of Metalaxyl in rats is 669 mg/kg and the dermal LD50 is greater than 3100 mg/kg, indicating slight toxicity by ingestion and dermal application. Rabbits exhibited slight eye and skin irritation, but guinea pigs displayed no sensitization after Metalaxyl exposure. No information was available regarding the inhalation toxicity of Metalaxyl.

Chronic toxicity: A 90-day study of rats exposed to 0.1 to 2.5 mg/kg/day in diet, showed some cellular enlargement in the liver at the highest dose. In a similar study with dogs fed diets of approximately 0.04 to 0.8 mg/kg/day for 6 months, the dogs were adversely affected by the highest dose. Manifestations included increased blood alkaline phosphates and increased liver-to-brain weight ratio.

Reproductive effects: A three-generation rat study where animals were fed up to 2.5 mg/kg/day showed no compound related maternal toxicity or reproductive effects. These data suggest that Metalaxyl is unlikely to cause reproductive effects.

Teratogenic effects: Rats given a dosage of 120 mg/kg/day by stomach tube on days 6 to 15 of gestation exhibited no embryotoxicity or teratogenicity, nor did rabbits given a dosage of 20 mg/kg/day by the same route on days 6 to 18. These data suggest that Metalaxyl is not teratogenic.

Mutagenic effects: Studies including a dominant lethal assay in male mice indicate that Metalaxyl has no mutagenic potential.

Carcinogenic effects: Available studies of the carcinogenicity of Metalaxyl are inconclusive.

Organ toxicity: The liver is the primary target organ for Metalaxyl in animal systems.

Fate in humans and animals: Studies with rats and goats showed rapid metabolism and excretion via the urine and feces. Metalaxyl is metabolized to a variety of products before excretion. Forty-day feeding studies with dairy cattle at 15 ppm/day, showed less than 0.01 ppm was stored in the muscle and fat. The liver contained 0.13 to 0.20 ppm and the kidney 0.26 to 0.83 ppm. Chickens fed for 28 days at 5 ppm in the diet had less than 0.05 ppm in the eggs, skin, fat, breast, and thigh, and less than 0.1 ppm in the liver.

ECOLOGICAL INFORMATION:

Effects on birds: Metalaxyl is reported to be practically nontoxic to birds.

Effects on aquatic organisms: Metalaxyl is practically nontoxic to freshwater fish. The 96-hour LC50 values in rainbow trout, carp, and bluegill are all above 100 mg/L. Freshwater aquatic invertebrates are slightly more susceptible to Metalaxyl. *Daphnia magna*, a small freshwater crustacean, has an LC50 of 12.5 to 28 mg/L, depending on the product formulation. This indicates that Metalaxyl is slightly toxic to this organism. There is little tendency for Metalaxyl to accumulate in the edible portion of fish. Metalaxyl did not accumulate beyond seven times the background concentration and it was quickly eliminated after exposed fish were placed in fresh (Metalaxyl-free) water.

Effects on other organisms: Metalaxyl is nontoxic to bees.

Environmental Fate:

Breakdown in soil and groundwater: Under field conditions, Metalaxyl has a half-life of 7 to 170 days in the soil environment. A representative half-life in moist soils is about 70 days. Increased sunlight may increase the rate of breakdown in the soil. It is poorly sorbed by soils and highly soluble in water; these properties in combination with its long persistence pose a threat of contamination to groundwater. It readily leaches in sandy soil, although increased organic matter may decrease the rate of leaching. In a large-scale, national survey, Metalaxyl was detected in the groundwater of several American states at concentrations of 0.27 µg/L to 2.3 mg/L.



Breakdown in water: At pH levels of 5 to 9 and temperatures of 20 to 30°C, the half-life in water was greater than 4 weeks. However, exposure to sunlight reduced the half-life to 1 week.

Breakdown in vegetation: Plants absorb foliar applications through the leaves and stems, and can translocate the compound throughout the plant. Metalaxyl is not absorbed directly from the soil by plants. The parent compound is the major residue in potato tubers and grapes, but in potato leaves and on lettuce, metabolites are the major product.

DISPOSAL CONSIDERATION:

Disposal: Instructions concerning the disposal of this product and its containers are given on the product label.

These should be carefully followed. Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers.

TRANSPORT INFORMATION:

This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

