



MATERIAL SAFETY DATA SHEET

Acimaxyl 72 WP

IDENTIFICATION OF THE SUPPLIER:

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IDENTIFICATION OF THE SUPPLIER:

Common name: Mancozeb 64% + Metalaxyl 8% w/w
Product Name: Acimaxyl 72 WP
Formulation type: Wettable Powder (WP)
Chemical Name of Active Ingredient (IUPAC):
Metalaxyl: Methyl N-(methoxyacetyl)-N-(2,6-xylyl)-DL-alaninate
Mancozeb: Manganese ethylenebis(dithiocarbamate)(polymeric) complex with zinc salt.
Chemical Formula:
Metalaxyl: C₁₅H₂₁NO₄
Mancozeb: [-SCSNHCH₂CH₂NHCSSMn-] x (Zn) y
Molecular weight:
Metalaxyl: 279.3
Mancozeb: --

PRODUCT COMPOSITION:

Active Ingredient:	% w/w	CAS #
Mabcozeb	64 %	[8018-01-7]
Metalaxyl	8%	[57837-19-1]
Inert ingredient:	Up to 100%	





HAZARDOUS IDENTIFICATION:

May cause mild to moderate eye irritation to skin and eyes. May be irritating to the respiratory system. Avoid contact with skin and eyes. Combustible compound. May cause slight fire hazard when exposed to heat or flame. Dust-air mixtures may ignite or explode.

FIRST AID MEASURE:

Eye Contact: Immediately flush the eyes with gently flowing clean warm water or saline solution for 20 minutes. Get medical attention if irritation persists.

Skin Contact: Wash skin gently and thoroughly with water and soap. Get medical attention if necessary. Remove contaminated clothing, including shoes, and launder before reuse.

Inhalation: Wearing proper respiratory protection before rescues. Immediately remove the affected victim from exposure to an area of fresh air. If not breathing, give artificial respiration; if breathe difficult, give oxygen. Get medical attention.

Ingestion: Immediately give 2 glasses of water and induce vomiting by touching back of throat with finger. Never give anything by mouth to an unconscious person. Get medical attention.

FIRE FIGHTING MEASURE:

Fire and Explosion Hazard:

It contains mancozeb which is a combustible compound. May cause slight fire hazard when exposed to heat or flame. Dust-air mixtures may ignite or explode.

Firefighting Media:

Foam, carbon dioxide, dry powder or alcohol-resistant foam to extinguish small fires. Extinguish large fires with carbon dioxide, dry powder or alcohol resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product.





Firefighting Precaution:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face-piece operated in the pressure demand or other positive pressure mode. Keep unnecessary people away. Use as little water as possible. Dike area of fire to prevent material run-off.

Decontaminate emergency personnel with soap and water before leaving the fire area. Avoid breathing dusts, vapors and fumes from burning materials. Control run-off water.

ACCIDENTAL RELEASE MEASURE:

In case materials are released, use suitable protective equipment and follow all fire prevention procedures. Keep unnecessary persons away.

Isolate hazard area and deny entry. Do NOT wash away into sewer. Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting.

Carefully collect remainder, and then remove to safe place.

HANDLING AND STORAGE:

Handling Precautions:

Avoid contact with eyes, prolonged contact with skin, and inhalation of dust. Use adequate ventilation. Do not eat, drink or smoke whilst mixing and applying or before washing hands and face. Clean applicator and measuring equipment before using with other products and dispose of wash water where it will not contaminate crops, grazing, rivers and dams. Remove contaminated clothing and wash thoroughly after handling. Wear clean clothing each day, launder before reusing.

Storage Precautions:

Keep out of reach of unauthorized persons, children and animals. Do not store near food, feed, or drinking water. Store in original labeled, airtight container in dry, well-ventilated area, away from heat, sparks and other sources of ignition-NO SMOKING. Keep container tightly closed when not in use.





EXPOSURE CONTROL/ PERSONAL PROTECTION:

Engineering Controls:

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system.

Eye/Face:

To protect against accidental eye contact, goggles/face-shield should be worn.

Skin Protection:

Rubber gloves should be worn. Wash thoroughly with soap and water after handling.

Respiratory Protection:

Ensure good ventilation. For maximum protection, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus.

PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Greenish yellow powder

Odor: Characteristic odor

Bulk Density: 1 g/kg

Water Solubility: Dispersible in water

STABILITY AND REACTIVITY:

Stability: Stable under normal, dry storage conditions.

Incompatibilities: Sensitive to heat. Avoid mixed with highly reactive chemicals such as strong acid, strong base or strong oxidizing agent.

Hazard Decomposition: The substance decomposes on heating or on burning producing toxic and irritating fumes including sulfur oxides, nitrogen oxides, zinc oxide and manganese oxide.

Hazard Polymerization: Will not occur.



TOXICITY INFORMATION:

Acute Oral Toxicity: LD₅₀ for rats 3160 mg/kg
Acute Dermal Toxicity: LD₅₀ for rabbits >2000 mg/kg
Acute Inhalation Toxicity: LC₅₀ (4 h) for rats >8.0 mg/l
Skin Irritation: No irritating
Eye Irritation: Slightly irritating

ECOLOGICAL INFORMATION:

It may be hazardous to the aqueous organisms and environment.
Referenced technical active ingredient ecological information list as below:

Metalaxyl:

Birds: LD₅₀ for Japanese quail (7 d) 923, mallard duck (8 d) 1466 mg/kg. LC₅₀ (8 d) for Japanese quail, bobwhite quail and mallard ducks >10000 mg/kg.

Fish: LC₅₀ (96 h) for carp, rainbow trout and bluegill sunfish >100 mg/l.

Bee: No toxic to bees; LD₅₀ (48 h) (contact) >200, (oral) 269.3µg/bee

Environmental Fate:**Animals**

In mammals, following oral administration, Metalaxyl is rapidly absorbed and also rapidly and almost completely eliminated with urine and faeces. Metabolism proceeds via hydrolysis of the ester bond, oxidation of the 2-(6)-methyl group and of the phenyl ring and N-dealkylation. Residues in tissues were generally low and there was no evidence for accumulation or retention of Metalaxyl or its metabolites.

Plants

Metalaxyl is metabolized by more than 4 types of phase I reaction to form eight metabolites; at phase II, most of the metabolites are sugar conjugated. The types of reaction in phase (I) are: oxidation of the phenyl ring, oxidation of the methyl group, cleavage of the methyl ester and N-dealkylation.

Soil/Environment

In soil, DT₅₀ 29 d (realistic range 10-40 d), Koc 70 ml/g (realistic range 30-300 l/g).

DT₅₀ in water 22-48 d. photolytically stable in water.



Mancozeb:

Birds: In 10-day dietary studies, there were no mortalities in mallard ducks at 6400 mg/kg daily, and in Japanese quail at 3200 mg/kg daily.

Fish: LC50 (48 h) for goldfish 9.0, carp 4.0, rainbow trout 2.2, catfish 5.2 mg/l.

Bee: LC50 0.193 mg/bee

Environmental Fate:

Plants

Extensively metabolized in plants, forming ethylenethiourea, ethylenethiuram monosulfide, ethylenethiuram disulfide, and sulfur as transitory intermediates. Terminal metabolites are natural products, especially those derived from glycine.

Soil/Environment

Rapidly degraded in the environment by hydrolysis, oxidation, photolysis, and metabolism. DT 50 in soil *c.* 6-15 d.

DISPOSAL CONSIDERATIONS:

Disposal of product would be treated, stored, transported, and disposed of according to the local waste regulation authority. Do not flush to surface water or sanitary sewer system.

REGULATOR INFORMATION:

European/International Regulation:

Hazard Symbols:

Xi Irritant

Risk Phrases:

R 36 Irritating to eyes

R 37 Irritating to respiratory system

R 43 May cause sensitization by skin contact

Safety Phrases:

S 1/2 Keep locked-up and out of reach of children

S 3 Keep in a cool place

S 8 Keep container dry

S 24/25 Avoid contact with skin and eyes.





- S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S 46 If swallowed, seek medical advice immediately and show this container or label.

TRANSPORT INFORMATION:

UN NUMBER: 3077

ADR/RID:

Substance: Environmentally hazardous substance, solid, n.o.s
(Mancozeb/Metalaxyl)

Substance ID no.: 3077

Hazard ID no.: 90

Label: 9

Item no.: 12° C

IMDG/IMO

Packaging group: III

Label of class: 9 MARINE POLLUTANT

Shipping name: Environmentally hazardous substance, solid, n.o.s
(Mancozeb/Metalaxyl)

ICAO/IATA

Proper Shipping name: Environmentally hazardous substance, solid, n.o.s
(Mancozeb/Metalaxyl)

Class: 9

Hazard Label: Miscellaneous

Packaging group: III

Passenger Aircraft: Y911 (max 30 kg Gross weight)

911No Limit

Cargo Aircraft: 911 (No Limit)

