Roper DF Rainshield

Registrant: Loveland Products, Inc.

GENERAL

EPA Registration Number:	34704-1063	**Signal Word:**	CAUTION
CA Registration Number:	34704-1063-AA		
Active Ingredient:	75 - Mancozeb	**Application Methods:**	Seed Treatment, Ground, Chemigation, Air
Label Version:	120514 V1D 03G15	**Mode of Action:**	FRAC M3
Physical State:	Dry	**Toxic To:**	Aquatic Organisms
Product Type:	Algaecide, Bactericide, Fungicide	**Rainfastness:**	
Formulation Type:	Dry Flowable		

ADDITIONAL INFORMATION

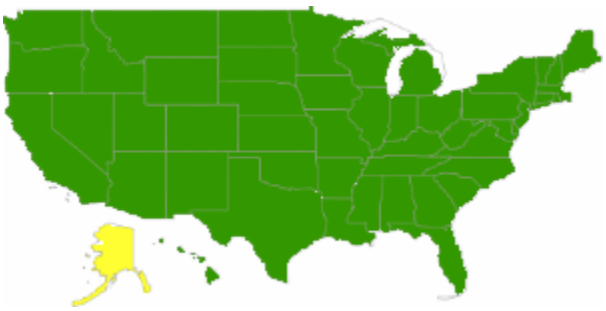
Federally Restricted:	No	**Organic Certifications:**	None
Posting Required:	No	**Closed Mixing System Required:**	All applications in All States/Provinces: Not required
Oral Notification Required:	No	**Avoid Grazing:**	See Label

CALIFORNIA

Registration #:	34704-1063-AA	**CA Restricted:**	No
CA NOI Required:	No		

REGISTERED FOR USE IN

AL, AR, AZ, CA, CO, CT, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY



PACKAGE TYPES

30 LB Package(s)

**Specific Notices will not be shown until a pest is selected.

SAFETY

PPE Information:	Some materials that are chemical-resistant to this product are nitrile rubber, natural rubber, or butyl rubber. Mixers, loaders, applicators and other handlers must wear: - Long-sleeved shirt, - Long pants, - Shoes and socks, - Chemical-resistant gloves made of any waterproof material. For Broccoli, Cabbage, Lettuce (leaf and head), and Peppers Aerial application of Roper DF Rainshield on broccoli, cabbage, lettuce (leaf and head), and peppers requires that occupational handlers performing mixing/loading operations observe the additional mitigation measures of wearing a particulate respirator with an N, R or P filter, NIOSH approval prefix TC 84-A. For Potato Seedpiece Treatment When opening this bag or loading/pouring the treated seed/seed pieces, wear long-sleeved shirt, long pants, shoes, socks, chemical-resistant gloves, and a particulate respirator with an N,R, or P filter, NIOSH approval prefix TC 84-A. For Walnuts Mixers/loaders supporting applications to walnuts must wear a particulate respirator with an N, R, or P filter, NIOSH-approved prefix TC84-A. See engineering controls for additional requirements.
Re-Entry PPE Information:	PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is: - Coveralls, - Chemical-resistant gloves made of any waterproof material, - Shoes plus socks.
Transport Information:	LAND TRANSPORT DOT Shipping Description: NON-BULK (882 pounds or less): NOT DOT REGULATED NOTE: DUE TO MULTIPLE MODES OF TRANSPORT THIS PRODUCT MAY HAVE DOT LABELS AND MARKINGS BULK (Greater than 882 pounds): UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (MANCOZEB) 9, III ERG GUIDE 171. U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OTHER THAN POISON (NMFC 102120; CLASS: 60)
Response Number:	800-424-9300
Medical Number:	866-944-8565
SDS Hazard ID Signal Word:	Warning

GENERAL NOTICE 1

Spray Drift Management A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product. Wind Speed Do not apply at wind speeds greater than 15 mph. Temperature Inversions If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions. Other State and Local Requirements Applicators must follow all state and local pesticide drift requirements regarding application of mancozeb. Where states have more stringent regulations, they must be observed. Equipment All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates. Additional requirements for aerial applications: - The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. - Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. - When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind. Additional requirements for ground boom application: - Do not apply with a nozzle height greater than 4 feet above the crop canopy. Application Ground: Thorough coverage foliar sprays generally result in optimum disease control. To achieve good coverage use proper spray pressure, volume of spray mixture per acre, nozzles (generally hollow cone), disc (generally D-5 to D-7), nozzle spacing, and tractor speed. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration. Hand Sprayers: Thoroughly spray plant foliage until runoff. Aerial: A uniform initial spray deposit generally results in optimum disease control. Each aircraft should be prechecked for droplet size, uniformity of spray pattern, swath width, and spray volume. During aerial application, human flaggers are prohibited. Nozzle selection: Hollow cone brass nozzles with a D-series orifice disc and core (whirlplate) are recommended. Nozzles should point straight down or slightly backward. Swath width: For most field and vegetable crops, swaths just beyond the wingspan of 36 to 40 feet for light aircraft and up to 45 feet for heavier aircraft are suggested. Optimum swath for helicopters is usually 5 to 10 feet beyond normal boom length. Spray volume: Aerial applications are to be made in a minimum of two (2) gallons of water per acre. On vegetable and field crops, 2 to 3 gallons of spray per acre are generally optimum; orchards and vineyards can be handled with spray volumes of 5 gallons per acre. Some tall or dense foliage crops requiring greater penetration to the lower leaf surface will require higher spray volumes. Do not use less than 5 gallons per acre in California. Altitude: For most crops, the spray boom should be positioned in 5 to 10 feet above the crop canopy. Flagging: Swaths should be marked at the end of the field with permanent flags. Swaths should be measured accurately with a chain or other device except when rows can be accurately counted. Chemigation Use Directions Sprinkler Irrigation: This product must be applied on a regular protectant fungicide schedule, not an irrigation schedule. If irrigation cycles are less frequent than recommended application intervals for this product, ground or aerial applications must supplement chemigation applications to achieve adequate disease control.

GENERAL NOTICE 2

ENVIRONMENTAL HAZARDS This pesticide is toxic to aquatic organisms. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

GENERAL NOTICE 3

DIRECTIONS FOR USE It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

GENERAL NOTICE 4

PRODUCT USE INFORMATION Roper(R) DF Rainshiel(TM) is a broad-spectrum protectant fungicide labeled for use on outdoor or greenhouse grown crops. Optimum disease control is achieved when the fungicide is applied in a regularly scheduled preventative spray program. The addition of a surfactant will improve fungicide performance by providing a more uniform spray deposit, increased foliar redistribution, and improved fungicide retention during periods of wet weather.

GENERAL NOTICE 5

Use Rate Determination - Carefully read, understand, and follow label use rates and restrictions. - When two pesticides are tank mixed, the more restrictive label conditions apply. - Do not tank mix with any product which contains a prohibition on tank mixing. - Under low disease conditions, minimum label rates per application can be used while maximum label rates and the minimum interval may be used for severe or threatening disease conditions. - For proper application, determine the number of acres to be treated, the required label use rate and the volume to be applied per acre. Prepare only the amount of spray solution required to treat the measured acreage. Careful calibration of spray equipment is recommended prior to use. - When applied by hand sprayers, 1 pound of this product per 100 gallons per acre is equivalent to 1 level tablespoon per gallon spray solution.

GENERAL NOTICE 6

Seed Treatment In addition to the maximum number of foliar applications permitted by the formula stated above, a single application for seed treatment may be made on crops, which have registered seed treatment uses.

GENERAL NOTICE 7

Product Requirements - Apply this product only through sprinkler irrigation systems including center-pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, or hand move irrigation systems. Do not apply product through any other type of irrigation system. - Lack of fungicidal effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. - If you have questions about calibration, you should contact State Extension Service specialist, equipment manufacturers or other experts. - Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water system are in place. - A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

GENERAL NOTICE 8

Specific Chemigation Equipment Requirements Before applying this product through sprinkler irrigation equipment, the chemigation system must meet the following specifications: - Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. - Chemigation systems connected to public water systems must contain a functional reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. - Systems not connected to a public water supply must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located in the irrigation pipeline to prevent water source contamination from back flow. - The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. - The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. - The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. - The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. - Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. - Do not apply when wind speed favors drift beyond the area intended for treatment. Center-Pivot, Lateral Move, End Tow, and Traveler Irrigation Equipment (use only with electric or oil hydraulic drive systems that provide a uniform water distribution): - Determine size of area to be treated. - Determine the time required to apply no more than 0.25 inch water (6,750 gallons water per acre) over the area to be treated when the system and injection equipment are operated at normal pressures recommended by the equipment manufacturer. Run system at 80% to 95% of manufacturer's rated capacity. - Using only water, determine the injection pump output when operated at normal line pressure. - Determine the amount of this product required for treatment area. - Add the required amount of this product and sufficient water to meet the injection time requirements of the solution tank. - Maintain constant solution tank agitation during the injection period. - Stop injection equipment after treatment is completed. Continue to operate the system until the solution of this product has cleared the sprinkler head. Solid-Set, Side (Wheel) Roll, and Hand Move Irrigation Equipment: - Determine acreage covered by sprinkler. - Fill injector solution tank with water and adjust flow rate to use contents over a 10- to 30-minute interval. - Determine the amount of this product required for treatment area. - Add the required amount of this product into the same quantity of water used to calibrate the injection equipment. - Maintain constant solution tank agitation during the injection period. - Operate system at normal pressures recommended by the manufacturer of the injection equipment and used for the time interval established during calibration. - Inject this product at the end of the irrigation cycle or as a separate application to maximize foliar fungicide retention. - Stop injection equipment after treatment is completed. Continue to operate the system until the solution of this product has cleared the last sprinkler head. Disease Monitoring This product is a broad-spectrum, protectant fungicide. If not applied on a routine protectant spray schedule, crops should be scouted on a weekly basis. Apply fungicide at the required label use rate and spray schedule, at the first sign of disease, report of disease in the area, or during environmental conditions favorable for disease development. Restrictions Users must carefully read, understand, and follow all use restrictions prior to using this product. Foliar Applications Where EBDC Products Are Used That Allow the Same Maximum Poundage of Active Ingredient Per Acre Per Season: If more than one product containing an EBDC active ingredient (maneb, mancozeb, or metiram) is used on a crop during the same growing season and the EBDC products used allow the same maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed any one of the specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre. Where EBDC Products Are Used That Allow Different Maximum Poundage of Active Ingredient Per Acre Per Season: If more than one product containing an EBDC active ingredient is used on a crop during the same growing season and the EBDC products used allow different maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed the lowest specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

TANK MIX INFORMATION

Mixing Procedures
Slowly place into spray tank as it is being filled or thoroughly premix in a nurse tank for concentrate or aircraft sprayers. Add other co-applied fungicides, insecticides, growth regulators, micronutrients after this product has been placed into suspension.
When preparing spray solutions for use in a hand sprayer, premix as a slurry in a small container, and then add to sprayer containing 1/3 to 1/2 the desired final water volume.
Compatibility
This product is compatible with most commonly used agricultural fungicides, insecticides and growth regulators.
When preparing tank mixes, user should consult spray compatibility charts or State Cooperative Extension Service Specialists prior to actual use.