MUSCLE™ ADV

Contains 0.84 pounds tebuconazole per gallon





KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID				
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration preferably mouth to mouth if possible. Call a poison control center or doctor for further treatment advice.			
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.			
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.			
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have affected person sip a glass of water if able to swallow. Do not induce vomiting unless told by a poison control center or doctor. Do not give anything by mouth to an unconscious person.			
Have the product container or label with you when calling a poison control center or doctor, or going for treatmen				
Emergency phone nu	(800) 222-1222 Poison Control Center (800) 858-7378 PIPIC (human and animal health) (800) 424-9300 CHEMTREC (transportation and spills)			



EPA Registration No. 60063-49

Puscle is a trademark of SipcamAgro USA, Inc.

EPA Est. No. 08655-MO-001 (Lot No. begins with AF)

070815-GA-001 (Lot No. begins with CB)

070989-AR-001 (Lot No. begins with OS)

MANUFACTURED FOR SipcamAgro USA, Inc. 2520 Meridian Parkway, Suite 525, Durham, NC 27713



60063-GA-001 (Lot No. begins with VL)

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

Mixers, loaders, applicators and all other handlers must wear:

- · Long-sleeved shirt and long pants;
- Shoes plus socks;
- Chemical-resistant gloves made of waterproof material, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyethylene, polyvinyl chloride, or viton (if you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart);

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them.

Engineering Controls:

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly
 and change into clean clothing.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to mammals, fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Groundwater Advisory: Chlorothalonil and tebuconazole are known to leach through soil into ground under certain conditions as a result of label use. Use of these chemicals in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Surface Water Advisory:

Chlorothalonil can contaminate surface water through spray drift. Do not apply when weather conditions favor drift from treated areas. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

Tebuconazole may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted within 48 hours.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, or pets, either directly or through drift. Only protected handlers may be in the area during applications. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.

AGRICULTURAL USE REOUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval of 12 hours.

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 materials, and
- · Shoes plus socks.

General Precautions and Restrictions

Apply only during alternate years in fields adjacent to aquatic areas such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds and estuaries. This product must not be applied within 150 feet (for aerial and air-blast applications), or 25 feet (for ground applications) from the aquatic areas listed above unless there is an untreated buffer area of that width between the area to be treated and the water body.

Do not use in greenhouses or other enclosed areas.

Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications or public health uses.

- I. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

Information On Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly, or under unfavorable conditions (see Wind, Temperature).

Controlling Droplet Size

- · Volume- Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure- Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets.
 When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles- Use the minimum number of nozzles that provide uniform coverage.
- Nozzle orientation- Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle type- Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift potential.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, small drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature And Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Rotational Crops

Treated areas may be replanted with any crop specified on this label as soon as practical after last application. Any crop not specified on this label may be planted into treated areas 120 days after last application.

Integrated Pest Management

Muscle ADV is a combination of systemic and contact fungicides with two different modes of action.

Muscle ADV is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases. Muscle ADV is recommended for use in programs that are compatible with the principles of Integrated Pest Management (IPM), including the use of disease resistant crop varieties, cultural practices, pest scouting and disease forecasting systems which reduce unnecessary applications of pesticides.

Fungicide Resistance Management

Muscle ADV is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides which are at risk from disease resistance exhibit a single-site mode of fungicidal action. The chlorothalonil in Muscle ADV is a multi-site mode of action and may be used to delay or prevent the development of resistance to single-site fungicides. Consult with your federal or state Cooperative Extension Service representatives for guidance on the proper use of Muscle ADV in programs which seek to minimize the occurrence of disease resistance to other fungicides.

Mixing, Loading and Applying

Muscle ADV is intended to be diluted into water and then applied to crops by typical agricultural spraying techniques. Always apply this product in sufficient water to obtain thorough, uniform coverage of foliage and crop surfaces intended to be protected from disease. Spray volume to be used will vary with crop and amount of plant growth. Spray volume should normally range from 20 to 150 gallons per acre (200 to 1400 liters per hectare) for dilute sprays and 5 to 10 gallons per acre (50 to 100 liters per hectare) for concentrate ground sprays and aircraft applications. Both ground and aircraft methods of application are recommended unless specific directions are given for a crop.

Slowly invert container several times to assure uniform mixture. Add specified amount of this product into the mixing tank while filling with water to the desired level. Keep agitator running when filling spray tank and during spray operations. If other materials are added to the mixing and/or spray tank, this product should be thoroughly dispersed into the water prior to the addition of other materials.

Compatibility

To determine the physical compatibility of this product with other products, the following procedure should be followed:

- 1. Pour the specified proportions of the product into a suitable container of water.
- 2. Mix thoroughly.
- 3. Allow to stand at least five (5) minutes.
- 4. If the combination remains uniformly mixed or can be re-mixed readily, the mixture is considered physically compatible.

Biological compatibility (i.e.effectiveness for disease control or lack of phytotoxicity) must be determined on a case-by-case basis. Do not mix this product with any other pesticide, fertilizer, adjuvant or any other materials except water unless you know that such mixtures will be effective and non-injurious to your crop under your conditions of use. When an adjuvant is to be used with this product, Sipcam Agro USA, Inc. recommends the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant.

FIELD AND ROW CROPS

Crop	PHI (days)	Diseases	Rate Per Acre (pints)	Application Directions
Cucurbits: Cantaloupe; Chayote (fruit); Chinese waxgourd (Chinese preserving melon); cucumber; Momordica spp (includes balsam apple, bitter melon: Muskmelon; Pumpkin; Squash; Watermelon; Zucchini Including cultivars and /or hybrids of these.	7	Powdery mildew (Podosphaera xanthii syn. Sphaerotheca fuliginea)(Erysiphe cichoracearum)	l.l to l.6	Apply the specified dosage in a protective spray schedule to foliage and fruit. Repeat applications at 10-14 day intervals. Muscle ADV must have 2 - 4 hrs of drying time to allow tebuconazole to move systemically into plant tissue before rain or irrigation occurs. After this time Muscle ADV will be resistant to weathering.
				The Chlorothalonil component of Muscle ADV enhances the control of Powdery mildew (Podosphaera xanthii syn., Sphaerotheca fuliginea) and Gummy stem blight/vine decline (Didymella bryoniae). For best control of foliage diseases, apply Echo 720 fungicide to the crop prior to and following applications of Muscle ADV. Follow application directions reported in Echo 720 label for a complete disease protection program. Apply by ground or air.
		Gummy stem blight/vine decline (Didymella bryoniae) (watermelon, squash, pumpkin, and melons only)		Do not apply more than 6.4 pints of this product (equal to 10.8 oz tebuconazole ai and 2.42 lbs chlorothalonil ai) per acre, per season.
			2.1	Note: Spraying mature watermelons may result in sunburn of the upper surface of the fruit. DO NOT apply Muscle ADV to watermelons when any of the following conditions are present: 1. Intense heat and sunlight; 2. Drought conditions; 3. Poor vine canopy; 4. Other crop and environmental conditions which may be conducive to increased natural sunburn.
				Before combining Muscle ADV with anything except water for application to watermelons ensure that prior use has shown the combination to be non-injurious to watermelons under your conditions of use.
Beans (dry)	14	Rust (Uromyces appendiculatus)	1.1 to 1.6	Apply Muscle ADV in a protective spray schedule or when weather conditions are favorable for rust development. Repeat applications at 10 day intervals. Do not apply more than 3.2 pints of this product (equal to 5.4 oz of Tebuconazole ai and 1.2 pounds of chlorothalonil ai) per acre per season.
				Muscle ADV must have 2 - 4 hrs of drying time to allow tebuconazole to move systemically into plant tissue before rain or irrigation occurs. After this time Muscle ADV will be resistant to weathering.

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FIELD AND ROW CROPS (continued)

Crop	PHI (days)	Diseases	Rate Per Acre (pints)	Application Directions
Corn (sweet corn, field corn grown for seed)	14 (sweet corn) 36 (corn for seed) 21 (corn for seed harvested for forage)	Rust (Puccinia spp.) Northern leaf blight (Helminthosporium tucicum) Southern leaf blight (Helminthosporium maydis) Northern leaf spot (Helminthosporium carbonum) Gray leaf spot (Cercospora zeae -maydis)	1.1 to 1.6	Apply Muscle ADV in a protective spray schedule or when weather conditions are favorable for disease development. Repeat applications at 7 -14 day intervals. Do not apply more than 6.4 pints of this product (equal to 10.8 oz of Tebuconazole ai and 2.4 pounds of chlorothalonil ai) per acre per crop season.
Dry bulb onion, Garlic, Great-headed (elephant) garlic, Welch onion, Shallot	7 14 (shallot)	Rust (Puccinia allii, Puccinia porri) Purple blotch (Alternaria porri)	1.1 to 1.6	Make foliar applications of Muscle ADV at the specified rate. Repeat at 10 - 14 day intervals. Apply Muscle ADV in a protective spray schedule or when weather conditions are favorable for rust development. Do not apply more than 3.2 pints of this product (equal to 5.4 oz of Tebuconazole ai and 1.2 pounds of chlorothalonil ai) per acre per season.
		Foliar Diseases: Early leaf spot (Cercospora arachidicola) Late leaf spot (Cercosporidium personatum) Pepper spot (Leptosphaerulina crassiasca) Rust (Puccinia arachidis)		Apply in sufficient water for coverage when leaf wetness first occurs or 30 to 40 days after planting. For best control of foliage diseases, apply Echo 720 fungicide to the crop prior to and following applications of Muscle ADV. For control of soilborne diseases in a typical preventive fungicide program for peanuts, apply this product approximately 45 to 60 days after planting (early pegging). Repeat applications at 14-day intervals consecutively four times. Leaf spot advisory schedule: For control of soilborne diseases in an advisory schedule, apply Muscle ADV in the first advisory spray, usually occurring in July, and continue applications at 14-day intervals.
Peanut	14	Web blotch (Phoma arachidicola) Soilborne Diseases: Sclerotium stem and pod rot (white mold, Southern blight, Southern stem rot) (Sclerotium rolfsii) Rhizoctonia limb rot (Rhizoctonia solani) Rhizoctonia pod rot (R. solani) (VA & NC Only)	2.0	Do not feed hay or threshings to livestock, or allow livestock to graze in treated areas. The active ingredient (tebuconazole) in this product must be carried by rainfall or irrigation into the root and pod zone for control of root and pod rots caused by Sclerotium rolfsii and Rhizoctonia solani. Drought conditions may decrease the effectiveness of this product against root and pod rots. Use this product in conjunction with cultural practices that are known to reduce the severity of soilborne diseases, such as proper crop rotation practices. Do not apply more than 7.7 pints of this product (equal to 13 oz of tebuconazole ai /A and 2.9 lbs chlorothalonil ai/A) per acre per season.

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FIELD AND ROW CROPS (continued)

Crop	PHI (days)	Diseases	Rate Per Acre (pints)	Application Directions
Soybean	42	Rust (Phakopsora pachyrhizi)	0.8 to 1.1	The Chlorothalonil component of Muscle ADV enhances the control of Rust (Phakopsora pachyrhizi). At the first sign of rust pustules on foliage make a spray application of this product. If environmental conditions are favorable to continued disease development, make a second application after 14 to 21 days dependent upon the severity of disease pressure. Apply this product in a minimum of 10 gallons of spray suspension per acre by ground sprayer or in a minimum of 5 gallons of spray suspension per acre by aircraft.
		Anthracnose (Colletotrichum truncatum)		For a complete control of other soybean foliar diseases, apply 1 pint per acre Echo 720 in tank mix with Muscle ADV. Apply preventively from Late vegetative (L5) to Early flowering (R1) stage followed by a second application from Early pod set (R3) to Seed formation (R5) stage. Apply a 3rd application at 14 days interval in areas having a history of moderate to severe disease intensity.
		Diaporthe pod & stem blight (Diaporthe phaseolorum)		
		Frogeye leaf spot (Cercospora sojina)		
		Purple seed stain (Cercospora kikuchii)		
		Cercospora leaf blight (Cercospora kikuchii)		Do not feed soybean hay or threshings from treated fields to livestock.
		Septoria brown spot (Septoria glycines)		Do not apply more than 3.2 pints of this product /A (equal to 5.4 oz of tebuconazole ai/A and 1.2 lb of chlorothalonil ai/A) per season.
		Rust (Phakopsora pachyrhizi) suppression		

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage: Store in a cool place. Protect from excessive heat.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:

Containers < \$\frac{5}\$ Gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container '/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Minibulk Containers: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follow: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto it other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Bulk Containers: Refillable container. Refill this container with pesticide only . Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. When the container is empty, replace the cap and seal all openings that have been opened during use; and return to the point of purchase, or to a designated location named at the time of purchase of this product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking. If the container is damaged or leaking or material has been spilled, follow these procedures:

- · Cover spill with absorbent material.
- Sweep into disposal container.
- Wash area with detergent and water and follow with clean water rinse.
- Do not allow to contaminate water supplies.
- · Dispose of according to instructions.

If not returned to the point of purchase or to a designated location, clean empty container as instructed above and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

WARRANTY AND LIMITATION OF DAMAGES

CONDITIONS OF SALE: To the extent consistent with applicable law, Sipcam Agro USA, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Sipcam Agro USA, Inc. SIPCAM AGRO USA, INC. DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. To the extent consistent with applicable law, SIPCAM AGRO USA, INC. SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SIPCAM AGRO USA, INC.'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. BUYER AND USER ACKNOWLEDGE AND ASSUME ALL RISKS AND LIABILITY RESULTING FROM HANDLING, STORAGE AND USE OF THIS PRODUCT. SIPCAM AGRO USA, INC. DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.