

Drexel

MSMA 6.6

MSMA Liquid

MSMA liquid herbicide for selective post-emergent weed control on Cotton, Golf courses and Sod farms, and Highway Rights-of-Way.

ACTIVE INGREDIENT:

Monosodium acid methanearsonate* 51.3%
OTHER INGREDIENTS: 48.7%
TOTAL: 100.0%

Total Arsenic (as elemental) all in water soluble form is 23.61%.

* This product contains 6.6 pounds of MSMA per gallon.

KEEP OUT OF REACH OF CHILDREN
CAUTION

See **FIRST AID** Below

EPA Reg. No. 19713-41
 EPA Est. No. 19713-MS-1

Net Content:
 2.5 Gals. (9.46 L)

FIRST AID

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 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 to 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency.

PRECAUTIONARY STATEMENTS

Hazards To Humans And Domestic Animals

CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are polyethylene or polyvinyl chloride. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, and shoes plus socks.

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.

When handlers use 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. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for Agricultural Pesticides [40 CFR 170.240(d)(6)].

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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.

ENVIRONMENTAL HAZARDS

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 by cleaning equipment or disposal of wastes. Do not contaminate water used by wildlife or aquatic life or water used for domestic or irrigation purposes.

USE INFORMATION

MSMA 6.6 herbicide is useful for selective post-emergent weed control, particularly for grassy weeds in Cotton, Golf courses and Sod farms, and Highway Rights-of-Way. Its activity is enhanced by addition of a suitable surfactant, cleared for application to growing crops, to the spray solution. Best results are obtained on young actively growing weeds at air temperature above 70°F. This product applied properly will kill or control noxious weeds susceptible to MSMA such as:

Bahiagrass	Fall panicum	Oats (Wild)
Barnyardgrass	Fiddleneck	Pigweed
Beggartick (Hairy)	Florida beggarweed	Puncturevine
<i>Brachiaria</i> spp.	Foxtail	Purslane (Common)
Broomsedge	(Green and Yellow)	Ragweed
Chickweed	Goosegrass	Sandbur
Cocklebur	Guineagrass	Sicklepod
Crabgrass	Jimsonweed	Spurge
(Smooth and Large)	Johnsongrass	Watergrass
Dallisgrass	Morningglory	Witchgrass
Dandelion	Mustard (Wild)	Wood sorrel
Dayflower	Nutsedge	

RESISTANCE MANAGEMENT

GROUP 17 HERBICIDE

This product is a Group 17 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 17 herbicides. Weed species with acquired resistance to Group 17 may eventually dominate the weed population if Group 17 herbicides are used repeatedly in the same field or in successive years as primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 17 herbicides.

Manufactured By:

Drexel Chemical Company

P.O. BOX 13327, MEMPHIS, TN 38113-0327

SINCE 1972

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To delay herbicide resistance, consider:

- Avoiding the consecutive use of this product or other target site of action Group 17 herbicides that have a similar target site of action on the same weed species.
- Using tank mixtures or pre-mixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or pre-pack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

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, either directly or through drift. Only protected handlers may be in the area during application.

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS. Do not enter or allow worker entry into treated areas during the REI of 12 hours.

PPE required for early entry to treated areas that is permitted under the WPS 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, chemical-resistant footwear plus socks, and protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep children and pets out of the treated area until sprays have dried.

APPLICATION RESTRICTIONS

- Do not apply this product in Florida except on Cotton in the counties listed in the Cotton use section of this label.
- Aerial application is prohibited, except when applying to Cotton.

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, public health uses or to applications using dry formulations.

1. The distance of the outermost nozzles on the boom must not exceed three-fourths 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. The applicator should be familiar with and take into account the information covered in the "AERIAL DRIFT REDUCTION ADVISORY INFORMATION" section below.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

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 environmental conditions (see "Wind", "Temperature and Humidity", and "Temperature Inversions").

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 larger droplets than other nozzle types.

Boom Length

For some use patterns, reducing the effective boom length to less than three-fourths 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, smaller drops, etc).

Wind

Drift potential is lowest between speeds of 2 to 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.

Sensitive Areas

This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive area).

MIXING INSTRUCTIONS

This product must be thoroughly mixed. Fill the spray equipment reservoir about half full with water and add the required amount of herbicide and surfactant with agitation. Finish filling the reservoir with water, agitate, then apply. After use, clean equipment thoroughly by flushing with water. Do not store spray solution in tank for a prolonged period.

COTTON

This product is useful for the control of weeds listed under “*USE INFORMATION*” section and many similar weeds. Applications can be made: 1) Post-emergent, over the top, when Cotton is 3 to 6 inches high or up to early first square stage, whichever occurs first using ground or aircraft equipment. 2) Post-emergent as a directed spray with ground equipment when Cotton is 3 inches high to first bloom.

Slight burning and a reddish discoloration of the Cotton leaf may occasionally occur following application, but the Cotton plant will develop normally.

USE RESTRICTIONS

- Do not apply in Florida except on Cotton grown in the following counties: Calhoun, Columbia, Escambia, Gadsden, Hamilton, Holmes, Jackson, Jefferson, Okaloosa, Santa Rosa, Suwannee, Walton, and Washington.

Note: Applications to Cotton in Florida should be confined to band treatments.

- Only one application at 2 pounds a.i. (2.4 pts. of this product) per acre is allowed per season, except when a salvage operation is needed.
- If a salvage operation is needed (i.e., if Pigweed escapes the first application), then a second or repeat application at 2 pounds a.i. (2.4 pts. of this product) per acre is allowed.
- A second or repeat application, if needed, should be timed 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy rapidly growing Cotton 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed spray. In order to minimize injury, the second application should be made as a directed spray when possible.
- Do not make more than two applications per season.
- Do not apply more than a total of 4 pounds a.i. per acre per season.
- Do not apply pre-plant to Cotton.
- Do not apply within 50 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.
- Do not allow spray or spray drift to contact adjacent crops or injury will result.
- Apply only on still days when weather conditions do not favor drift from areas being treated. Aircraft applications of this product should only be made by applicators experienced in use of herbicides, and application should be made in accordance with State and Federal regulations.

Post-emergent Applications Using Ground or Aircraft Equipment as an Over-the-Top Broadcast Spray when Cotton is 3 inches high until early first square stage as a salvage operation. **One application:** Use 2.4 pints in 40 gallons of water for ground application, or in 5 to 10 gallons of water for aircraft application per acre. **DO NOT** repeat this treatment. **Two applications:** Mix at the rate of 0.9 to 1.2 pints of this product in 40 gallons of water for ground equipment or in 5 to 10 gallons of water for aircraft application per acre of Cotton. If needed, a second or repeat application should be made 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy, rapidly growing Cotton, 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed sprays. In order to minimize injury, the second application should be made as a directed spray when possible. **DO NOT** make more than two applications per season. Do not feed treated foliage to livestock or graze treated areas.

Post-emergent Directed Spray Applications: Mix this product at the rate of 2.4 pints in 40 gallons of water per acre for application as directed broadcast spray when weeds are small. For band applications, mix 2.4 pints in 40 gallons of water per acre, then apply 1 gallon of the diluted spray for each 1 inch band width to be treated of Cotton grown on 40 inch row spacing. Direct the spray solution to the base of the Cotton plant. Nozzles should be placed so as to avoid spraying the Cotton treated foliage, but to give good coverage of the weeds.

If regrowth occurs, make a second application about 1 to 3 weeks after the first. Make directed applications only when Cotton is 3 inches high to first bloom. Do not apply after first bloom. Do not feed treated foliage to livestock or graze treated areas.

GOLF COURSES AND SOD FARMS

Mow Turfgrass to a height of 1 to 1.5 inches before treatment. Mix 0.9 fluid ounce (1.8 tbsp.) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet. For established Bermudagrass and Zoysiagrass, mix 0.9 to 1.8 fluid ounces (1.8 to 3.6 tbsp.) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet. Apply during warm weather when temperature is between 80°F and 90°F. Do not water turf for at least 24 hours after application. Turfgrass may be temporarily discolored. Bermudagrass, Bluegrass, and Zoysiagrass have shown tolerance if this product is properly applied. Injury may result if applied to Bentgrass, Fescue, and St. Augustinegrass. **DO NOT apply to St. Augustinegrass except for commercial sod production.** **DO NOT** apply to Carpetgrass, Centipedegrass, or to Dichondra. **DO NOT** reseed until two weeks after last application. For application to St. Augustinegrass in sod farms, last application can be made 4 to 5 weeks prior to lifting the sod for harvest to allow full recovery before lifting. St. Augustinegrass sod will be temporarily discolored following application. **DO NOT** apply to freshly mowed St. Augustinegrass sod.

USE RESTRICTIONS

- For newly constructed golf courses, **ONLY** one broadcast application is permitted.
- For all other applications to golf courses, this product can **ONLY** be used for spot treatments (100 sq. ft. maximum per spot), not to exceed 25% of the total golf course acreage per year.
- In sod farms, **ONLY** two broadcast applications are allowed per season. Do not apply within 25 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.

HIGHWAY RIGHTS-OF-WAY

This product is useful for control of emerged weeds and grasses such as those listed under “*USE INFORMATION*” and many similar weeds on highway rights-of-way. Applications should be made when weeds are small and conditions are favorable for good weed growth.

Mix this product at a rate of 2.2 to 5.4 pints plus 1 to 2 quarts of a suitable surfactant, cleared for application to growing crops, in 40 to 50 gallons of water. Spray unwanted vegetation thoroughly to point of runoff. Use spray equipment that gives good low volume coverage. If regrowth occurs, reapply as required.

USE RESTRICTIONS

- Do not apply more than two broadcast applications per year.
- Do not apply within 100 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.
- Do not feed treated foliage to livestock or graze treated areas.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides or fungicides. Do not store near heat or open flame. Freezing point of this product is below 45°F. If stored below freezing, warm to 60°F and agitate thoroughly before using. Containers should not be stacked more than six feet high. Reclose all partially used containers by thoroughly tightening screw cap. Damaged or leaking containers which cannot be used immediately should be transferred to suitable sound containers and properly marked. Absorb any spills with a suitable clay absorbant and dispose of as indicated under “*PESTICIDE DISPOSAL*”. For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities. To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between to provide clear identification. Open or partially used pesticides should be stored in original labeled containers when possible. When transfer to another container is necessary because of leakage or damage, carefully mark and identify contents of the new container.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticides, spray mixture, 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. **(Continued)**

STORAGE AND DISPOSAL (Cont.)

CONTAINER HANDLING:

Nonrefillable Container (rigid material; less than 5 gallons):

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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 one-fourth 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid material; 5 gallons up to < 250 gallons):

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill container one-fourth 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 its 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refillable Container (≥ 250 gallons & Bulk): 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% 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.

WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.