

**SPECIMEN  
LABEL**

**Agri Star®**

**CONTAINS  
NO SOLVENT**

# SOLVE™ MCPA ESTER

**ACTIVE INGREDIENT:**

2-ethylhexyl ester of 2-methyl-4-chlorophenoxyacetic acid\* ..... 66.51%

**OTHER INGREDIENTS** ..... 33.49%

**TOTAL** ..... 100.00%

\*Equivalent to 42.6% of 2-methyl-4-chlorophenoxyacetic acid isomer specific or not less than 3.7 pounds of 2-methyl-4-chlorophenoxyacetic acid isomer specific per gallon at 68°F. Isomer specific by AOAC Method.

EPA Reg. No. 42750-25

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

**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 the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by 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.

**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

**See inside booklet for additional PRECAUTIONARY STATEMENTS.**

***Herbicide for Selective Control of  
Certain Weeds in Wheat, Oats,  
Barley, Rye, Grassland and in Non-  
Crop Areas***

Manufactured by:  
**ALBAUGH, LLC**  
1525 NE 36th Street  
Ankeny, Iowa 50021

**FOR CHEMICAL SPILL, LEAK,  
FIRE, OR EXPOSURE, CALL  
CHEMTREC 1-800-424-9300**



**Albaugh®**  
Your Alternative™

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

### Mixers, loaders, applicators, flaggers and other handlers must wear:

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves such as any made out of waterproof material,
- Shoes plus socks

### Additional PPE requirements for mixers and loaders supporting aerial application to rangelands, pasture lands, or noncrop-land. These mixers/loaders also must wear:

- A chemical-resistant apron, and
- A NIOSH approved particulate filtering respirator equipped with any N, R, P class filter media with NIOSH approval number prefix TC-84A. It is recommended that the respirator wearer be fit tested, and trained in the use, maintenance, and limitations of the respirator.

See engineering controls for additional requirements.

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.

## ENGINEERING CONTROLS

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

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:

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 when disposing of equipment washwaters or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

## PHYSICAL OR CHEMICAL HAZARDS

Do not cut or weld container.

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

Do not apply this product through any type of irrigation system.

## AGRICULTURAL USE REQUIREMENTS

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 intervals. 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 (REI) 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 material
- Shoes plus socks.

## 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.

Do not enter or allow others to enter the treated area until sprays have dried.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a dry location away from children, animals, foods, feeds, seeds and other agricultural chemicals. Keep container closed when not using. Handle in accordance with information given under "Precautionary Statements." Keep storage area locked when not in use. In the event of spillage or leakage, soak up material with absorbent clay, sand, sawdust or other absorbent material. Scrape up and dispose of in accordance with information given under "Pesticide Disposal." Repackage and relabel usable product in a sound container. In case of fire or other emergency, report at once by toll-free telephone to 1-800-424-9300.

**Note:** SOLVE™ MCPA Ester freezes when stored below -5°C. After thawing, all physical properties are restored.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

### CONTAINER DISPOSAL:

**Non-refillable containers (1, 2.5, 30 & 55 gallon):** Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**(Non-refillable <5 gallons):** 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 1/4 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.

**(Non-refillable >5 gallons):** Triple rinse as follows: 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use for disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable container (250 gallon & bulk):** 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 the 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 process two more times.

## GENERAL INFORMATION

Local conditions may affect the use of this chemical. Consult State Agricultural Extension or Experiment Station Weed Specialists for specific recommendations for local weed problems, and for information on possible lower dosages. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically directed and other influencing factors in the use of this product are beyond the control of seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herewith.

## CONTROLS THESE AND OTHER WEEDS

### SUSCEPTIBLE WEEDS (MOST AREAS):

Annual sowthistle	Field peppergrass	Lambsquarters	Poison hemlock	Stinkweed
Beggarticks	Goatsbeard	(goosefoot)	Puncturevine	(pennycress, fanweed)
Cocklebur	Hempnettle	Marshelder	Ragweed	Wild radish
Dragonhead mint		Mustards (annual)	Shepherdspurse	Yellow rocket or wintercress

### LESS SUSCEPTIBLE:

Buttercups	Dandelions	Perennial sowthistle	Russian pigweed	Vetch
Canada thistle	Kochia	Plantains	Stinging nettle	White top or hoary cress
Chervil	Miner's lettuce	Purslane	Sunflower	

## PREPARATION OF THE SPRAY

Fill the spray tank with half the required amount of water, then add the recommended amount of SOLVE™ MCPA Ester and continue filling the spray tank with the balance of water. Keep agitator running when filling spray tank and during spray operation. For crop uses, do not mix with oil, surfactant or other adjuvants as this may reduce selectivity to crops resulting in crop damage or kill. When cleaning equipment, do not pour washwater on the ground; spray or drain over a large area away from wells and other water sources.

## AMOUNT OF SPRAY TO APPLY

Apply 5 to 15 gallons of total spray per acre when making applications with ground equipment, and 3 to 10 gallons of total spray per acre when making applications by aircraft unless directed otherwise under specific directions. Do not apply MCPA isooctyl ester by aerial application in the vicinity of sugar beets. Do not apply MCPA isooctyl ester around houses, recreation sites, or similar areas. Carefully read the Environmental Hazards section of the Precautionary Statements for further information on spray volume.

## 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.

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Apply only when wind speed is 2-10 mph at the application site.

### FOR AERIAL APPLICATION:

- The distance of the outermost nozzles on the boom must not exceed 75% of the wingspan or 90% 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.

### FOR GROUND BOOM APPLICATION:

- Do not apply with a nozzle height greater than 4 feet above the crop canopy.

**SWATH ADJUSTMENT:** When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of application area by adjusting the path of the aircraft upwind.

**TEMPERATURE INVERSIONS:** Do not make applications during a temperature inversion because drift potential is high.

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

Where states have more stringent regulations, they must be observed. The applicator should be familiar with and take into account the information covered in the [Aerial Drift Reduction Advisory Information](#).

## SELECTIVE SPRAYING

### WHEAT, OATS, BARLEY AND RYE:

Apply as a water mix spray by ground sprayer or airplane. Use 1/2 to 1 pint per acre for the more susceptible weeds after crop has reached the 3- to 4-leaf stage up to boot stage. Use up to 1-2/3 pints per acre for the less susceptible weeds after crop has tillered and up to early boot stage.

- Do not spray from boot to dough stage.
- Do not forage or graze meat animals on treated areas within 7 days of slaughter.
- Do not forage or graze dairy animals on treated areas within 7 days after treatment.
- Do not apply more than 1-2/3 pints (0.75 lb. acid equivalent) per acre per year.

### FLAX:

Use 1/4 to 1/2 pint per acre. Apply by ground sprayer or by airplane. Apply only when weeds are up and when flax is 4 to 8 inches high and before it comes into bud. Treatment after early bud stage may result in severe damage. If Canada Thistle is present, it may be necessary to go as high as 1/2 pint per acre to prevent seed head production. Some injury to the flax may result.

- Do not forage or graze meat animals on treated areas within 7 days of slaughter.
- Do not forage or graze dairy animals on treated areas within 7 days after treatment.
- Do not apply more than 1/2 pints (0.25 lb. acid equivalent) per acre per year.

## GRASSES

### ESTABLISHED PASTURE/RANGELAND:

Use 1 to 3 pints per acre in sufficient water (10 to 100 gallons) by airplane or ground sprayer application and give thorough coverage. Use higher rate for White Top, Canada Thistle and other less susceptible weeds. Spray perennials in early bud to full bloom stage and regrowth in fall; other weeds in spring or fall, when actively growing.

- Do not forage or graze meat animals on treated areas within 7 days of slaughter.
- Do not forage or graze dairy animals on treated areas within 7 days after treatment.
- Do not apply more than 3-1/4 pints (1.5 lb. acid equivalent) per acre per year
- Do not apply more than 2 applications per year with a minimum retreatment interval of 21 days.

### GRASSES GROWN FOR SEED – Aerial and surface applications:

Use 1 to 2 pints per acre, the higher rate where weed stands are heavy. In established grasses, apply in spring before head comes into boot and on seedling grass after grass has tillered.

**Note:** For weed control in grasses, repeated treatment may be needed for less susceptible weeds. In some areas bent, buffalo, carpet and St. Augustine grasses may also be injured by treatment.

- Do not apply more than 3-1/4 pints (1.5 lb. acid equivalent) per acre per year.
- Do not apply more than 2 applications per year with a minimum retreatment interval of 21 days.

### NON-CROP SPRAYING (In non-crop areas such as Roadsides, Fence Rows, Rights-of-Way and similar places to control Canada Thistle, White Top and Meadow Buttercup)

For Spot Treatment, use 1/4 pint in 3 to 4 gallons of water. Spray to wet weeds thoroughly when in bud to early bloom and again on fall regrowth.

- Do not apply more than 6-1/2 pints (3.0 lb. acid equivalent) per acre per year.

For Broadcast Treatment apply 2 to 3 pints per acre in sufficient water to give coverage for most extensive areas. Spray to wet weeds thoroughly when in bud to early bloom and again on fall regrowth.

- Do not apply more than 3-1/4 pints (1.5 lb. acid equivalent) per acre per year.
- Do not forage or graze livestock or dairy animals on treated areas within 7 days of treatment.
- Do not apply more than 2 applications per year with a minimum retreatment interval of 21 days.

### GOLF COURSES:

For controlling whitetop, dandelions and similar weeds, apply 1 to 2 pints per acre in sufficient water to provide thorough coverage. Treatment may reduce stands of clover which may be present. Do not apply to newly seeded turf until grass has become well established. MCPA may injure bent or other creeping grass types. For best result treat thistles when in the early bud stage.

- Do not apply more than 3 pints (1.5 lb. acid equivalent) per acre per year.
- Do not apply more than 2 applications per year with a minimum retreatment interval of 21 days.

### SOD FARMS:

For broadcast application, apply 1 to 3 pints per acre in a spray volume of 10 to 100 gallons of water. Use the higher rate for heavy infestations or less susceptible weed species. For best results, apply in spring or fall when weeds are rapidly growing and do not mow for 2 days before or after application. For spot treatment in small areas, use 1 fluid ounce per 1,000 square feet in 1 to 3 gallons of spray and apply uniformly.

**NOTE:** Repeat applications may be required for less susceptible weeds. In some areas, bent, buffalo, carpet and St. Augustine grasses may also be injured.

- Do not apply more than 3-1/4 pints (1.5 lb. acid equivalent) per acre per year.
- Do not apply more than 2 applications per year with a minimum retreatment interval of 21 days.

### **USE IN LIQUID NITROGEN FERTILIZER**

SOLVE™ MCPA Ester is specially formulated to be combined with liquid nitrogen fertilizer suitable for foliar application in one operation. Use SOLVE™ MCPA Ester according to directions on this label. Use liquid fertilizer at rates recommended by supplier or Extension Service Specialist. Mix the SOLVE™ MCPA Ester concentrate and fertilizer according to the following instructions.

Fill the tank approximately 1/2 full with the liquid fertilizer. Add the SOLVE™ MCPA Ester concentrate while agitating the tank. Add the remainder of the liquid fertilizer while continuing to agitate. Application should be made immediately, maintaining agitation until spray tank is empty. **DO NOT APPLY DURING COLD (NEAR FREEZING) WEATHER.** Spray mixture may not be stored.

### **CONDITIONS OF SALE AND WARRANTY**

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ALBAUGH, LLC, its Supplemental Distributors, or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

ALBAUGH, LLC, its Supplemental Distributors and the Seller warrant that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NEITHER ALBAUGH, LLC NOR ITS SUPPLEMENTAL DISTRIBUTORS MAKE ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS.**

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