



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 20, 2023

Alison Suffill  
Label Facilitator  
Atticus, LLC  
5000 CentreGreen Way, Suite 100  
Cary, NC 27513

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from the Interim Decision for Metolachlor and the National Marine Fisheries Services' (NMFS) Biological Opinion on the Effects of Metolachlor on Pacific Salmonids  
*Product Name:* A308.12  
*EPA Registration Number:* 91234-65  
*Application Dates:* March 23, 2021, and September 3, 2021  
*Decision Numbers:* 589039, 589040

Dear Alison Suffill:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Metolachlor Interim Decision. The Agency has concluded that your submission is acceptable.

This letter also addresses the label mitigation resulting from the NMFS' Biological Opinion on the effects of Metolachlor on Pacific salmonids. The Agency has concluded that your submission is also acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling

Page 2 of 2  
EPA Reg. No. 91234-65  
Decision No. 589039, 589040

before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact DeMariah Koger at [Koger.demariah@epa.gov](mailto:Koger.demariah@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure

Note to reviewer: [Text] in brackets denotes optional or explanatory language  
 [Note to reviewer: {Text} in braces denotes where in the final label text will appear

**{BOOKLET FRONT PANEL LANGUAGE}**

<b>SULFENTRAZONE</b>	<b>GROUP</b>	<b>14</b>	<b>HERBICIDE</b>
<b>METOLACHLOR</b>	<b>GROUP</b>	<b>15</b>	<b>HERBICIDE</b>

# A308.12<sup>[TM]</sup>

<b>ACTIVE INGREDIENTS:</b>	<b>% BY WT.</b>
Sulfentrazone .....	7.55%
Metolachlor .....	68.25%
<b>OTHER INGREDIENTS:</b> .....	<u>24.20%</u>
<b>TOTAL:</b> .....	100.00%

Contains a total of 7.0 lb/gal which include 0.7 lb ai sulfentrazone and 6.3 lb ai metolachlor per gallon.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

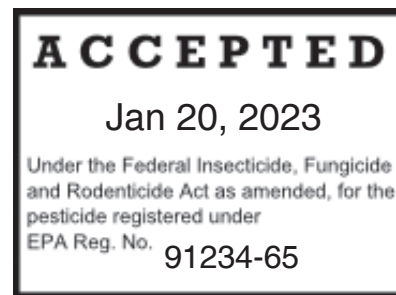
See inside label booklet for First Aid, Precautionary Statements and Directions for Use.

**EPA Reg. No.: 91234-65**

**EPA Est. No.:**

**Net Contents:**

**Manufactured For:**  
 Atticus, LLC  
 5000 CentreGreen Way, Suite 100  
 Cary, NC 27513



## {LANGUAGE INSIDE BOOKLET}

<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15- 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>Note to Physician:</b> Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at <b>1-844-685-9173</b> for emergency medical treatment information.	

**For Chemical Emergency**  
**Spill, Leak, Fire, Exposure, or Accident**  
**Call CHEMTREC Day or Night**  
**Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
**CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some people. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**Personal Protective Equipment (PPE):**

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants,
- chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, or Viton ≥ 14 mils,
- Chemical-resistant footwear plus socks,
- Chemical resistant apron when cleaning equipment, mixing, or loading,
- Chemical-resistant headgear for overhead exposure.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them.

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:**

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. Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)]. When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS****Users should:**

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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:**

This pesticide is toxic to fish and marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

**Mixing/loading Instructions:**

Care must be taken when using this product to prevent back-siphoning into wells, spills or improper disposal of excess pesticide, spray mixtures, or rinsates. Check-valves or antisiphoning devices must be used on all mixing and/or irrigation equipment.

**A308.12** may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad.

Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

**Groundwater advisory:**

Sulfentrazone and metolachlor are known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**Do not use on coarse soils classified as sand, which have less than 1% organic matter.**

**Surface water advisory:**

This product can contaminate surface water through spray drift. This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or months after application. 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 loading of metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

**NON-TARGET ORGANISM ADVISORY**

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

**Reporting Ecological Incidents:**

To report ecological incidents, including mortality, injury, or harm to plants and animals, call 984-465-4800.

**Physical/Chemical Hazards:**

Do not use or store near heat or open flame.

**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.

**Endangered Species Protection Requirements:**

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

### 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 interval. These requirements 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.**

**Exception:** if the product is soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

Personal Protective Equipment (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:

- Chemical-resistant headgear for overhead exposure,
- Coveralls over short-sleeve shirt and short pants,
- Chemical-resistant gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, or Viton  $\geq$  14 mils,
- Chemical-resistant footwear plus socks.

### WEED RESISTANCE MANAGEMENT

For resistance management, please note that **A308.12** contains both a group 14 and a group 15 herbicide. Any weed population may contain plants naturally resistant to group 14 and/or group 15 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of **A308.12** or other Group 14 Group 15 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available use the less resistance-prone partner at a rate that will control the target weeds equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation and that considers tillage or other mechanical control methods, cultural, biological and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds.
  - A spreading patch of non-controlled plants of a particular weed species.
  - Surviving plants mixed with controlled individuals of the same species.
- If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

- For further information or to report suspected resistance contact your Atticus representative or call 984-465-4800.

**PRODUCT INFORMATION**

**A308.12** is a soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds.

If adequate moisture (1/2" to 1") from rainfall or irrigation is not received within 7 to 10 days after the **A308.12** treatment, a shallow incorporation (less than 2"), may be needed to obtain desired weed control.

When activating moisture is not received a planned post-emergence application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1") is not received **A308.12** will provide a reduced level of control of susceptible germinating weeds.

Observe all instructions, crop restrictions, mixing directions, application precautions, replanting directions, rotational crop guidelines and other label information of each product when tank mixing with **A308.12**. Tank mixtures are permitted only in those states where the tank mix partner is registered. **A308.12** can be mixed with water, liquid fertilizer, or mixtures of water and liquid fertilizer and applied as a preplant or preemergence treatment to labeled crops. It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Under normal growing conditions, **A308.12** exhibits excellent crop safety. Soil applications of **A308.12** must be made before crop seed germination to prevent injury to the emerging crop seedlings. **A308.12** applied after crop emergence will cause severe injury to the crop. Poor growing conditions, such as excessive soil moisture, cool temperatures, and soil compaction or the presence of various pathogens may impact seedling vigor. Under these conditions, the active ingredients in **A308.12** can contribute to crop response. Refer to the specific use directions for a particular crop/use pattern as set forth below for additional information.

**Mechanism of Action:**

Following the application of **A308.12** to soil, germinating seeds and seedlings take up **A308.12** from the soil solution. The amount of **A308.12** in soil solution available for weed uptake is determined primarily by soil type, soil organic matter and soil pH. Similar to other herbicides, **A308.12** adsorbs to the clay and organic matter (OM) fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds.

**Influence of soil type, organic matter and pH on A308.12 use rates and crop response:**

Coarse textured and high pH >7.2 soils (see table below) will exhibit increased weed control and crop response with **A308.12**. It is important to know the soil type and soil pH levels of the field (or areas within a field) before application to determine the proper rate of **A308.12** for the crop. Soil organic matter content and soil pH can vary widely and independently of soil type and requires an accurate analysis of representative soil samples or grids of soil samples within a specific field to determine its content.

It is important to note that irrigation with highly alkaline water (high pH) following a **A308.12** soil application can also significantly increase the amount of **A308.12** available in the soil solution. Irrigation with water having a pH greater than 7.2 could result in adverse crop response. This response will ultimately depend on initial **A308.12** application rate, timing, amount and pH of irrigation water and sensitivity of the crop and its growth stage when irrigated. The risk of adverse crop response will lessen with the advance in growth stage among most crops.

**SOIL TEXTURE CLASSIFICATION CHART**

<b>COARSE</b>	<b>MEDIUM</b>	<b>FINE</b>
Sand	Sandy clay loam	Silty clay loam
Loamy sand	Sandy clay	Silty clay



Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

## APPLICATION INFORMATION

### Ground and Aerial Application:

Utilize a sprayer equipped with the appropriate nozzles providing optimum spray distribution and coverage at the appropriate operating pressures. Refer to the restrictions for specific droplet sizes to avoid drift. Apply a minimum of 10 gallons of finished spray solution per acre by ground or 5 gallons by air. The sprayer should be properly calibrated to deliver the appropriate volume of herbicide solution. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

For boom spraying, the minimum release height must be 30 inches from the soil for ground applications and 10 feet from the top of the crop canopy for aerial applications (unless a greater application height is required for pilot safety)

### Restrictions:

- Do not apply other products containing sulfentrazone or metolachlor to the crop unless specified in the individual crop section.
- Do not use in nurseries, turf or landscape plantings.
- Do not apply when wind speed favors drift beyond the area intended for treatment.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas. To prevent off-site movement due to runoff or wind erosion:
  - Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates, such as paved or highly compacted surfaces.
  - Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops, unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.
- Select nozzles and application pressure that deliver medium to coarse or larger spray droplets as indicated in the nozzle manufacturer's recommendations and in accordance with ASABE Standard S-572.
- Select coarse to very coarse droplet size when used as a preemergent/preplant application.
- Select medium to very coarse droplet size when used postemergence with a contact burndown herbicide.
- Applicators may spray only when wind speed is between 3 and 10 mph.
- Do not apply as spray droplets smaller than medium to coarse (as defined by ASABE standard).

### Restrictions for Ground Application:

- Ground applicators must use a minimum finished spray volume of 10 gallons per acre.
- When tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre.
- For boom spraying, the maximum release height is 30 inches from the soil for ground applications.

### Restrictions for Aerial Application:

- Aerial application is allowed only when environmental conditions prohibit ground application. Aerial application will be allowed when the field is too wet to safely apply pesticides using ground equipment.
- When this product is allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons per acre.
- The maximum release height must be 10 feet from the top of the crop canopy, unless a greater application height is required for pilot safety.

**Chemigation Application:**

Apply **A308.12** in 0.25 to 1 inch of water. Use the lower water volume on coarse textured soil and higher volume on fine textured soils. Applying >1" of irrigation water may result in reduced weed control by moving the product below the weed germination zone in the soil. Apply immediately after planting unless specified differently in the individual crop section. **A308.12** may be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set, or hand move irrigation systems. Crop injury, lack of effectiveness or illegal residues on or in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. 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.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must also 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. 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.

**A308.12** should be metered into the irrigation system continuously for the duration of the water application.

**A308.12** should be diluted in sufficient volume to ensure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the soil surface. Continuous agitation is required to maintain product suspension in the solution tank. A jar test should be conducted to ensure that phase separation would not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable weed control. Flush the lines at the completion of the application and then turn the water off promptly.

When using water from public water systems; DO NOT APPLY **A308.12** THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM. 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 of the year. **A308.12** may be applied through irrigation systems, which may be supplied by a public water system only if water from the water system is 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 to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

It is important to note that irrigation with highly alkaline water (high pH) following a **A308.12** soil application may significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.2 could result in adverse crop response.

**Restrictions:**

- Do not apply this product through any other type of irrigation system.
- Do not connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system.

**Application with Dry Fertilizers:**

**A308.12** may be applied impregnated on dry fertilizers. When applied as directed with adequate soil coverage, **A308.12**/dry bulk fertilizer mixtures will provide satisfactory weed control.

Follow all **A308.12** label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions. Apply **A308.12**/dry fertilizer mixtures with ground equipment only. All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company preparing, storing, transporting, selling or applying the **A308.12**/dry fertilizer mixture.

**Impregnation Directions:**

To impregnate **A308.12** on dry bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment.

Prepare a slurry of **A308.12** in a clean container using clear water. Slowly add the **A308.12**/water slurry to the impregnation spray tank and finish filling as needed with clear water. Spray nozzles must be placed to provide uniform coverage of **A308.12** onto the fertilizer during mixing.

Refer to the SPRAYER EQUIPMENT CLEAN-OUT section for directions for cleaning impregnation equipment, transport equipment, loading equipment and application equipment.

Apply the **A308.12** dry bulk fertilizer with an accurately calibrated dry fertilizer spreader. The **A308.12** dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading leaving untreated areas can cause poor weed control or overlapping areas with potential increased **A308.12** use rates could result in possible crop response.

A minimum of 200 pounds of dry bulk fertilizer impregnated with the listed amount of **A308.12** must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

Refer to the appropriate crop section of the **A308.12** label to determine the rate of **A308.12** to be applied per acre. Use the following table to determine the amount of **A308.12** to be impregnated on a ton (2000 pounds) of dry bulk fertilizer based on the rate of fertilizer that will be applied per acre.

For those rates not listed in the table below, RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH **A308.12**, calculate the amount of **A308.12** to be impregnated on a ton of dry bulk fertilizer using the following formula:

**RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH A308.12**

Dry Fertilizer Rate / Acre (lb/A)	Fluid Ounces of A308.12 Per Ton of Fertilizer		
	A308.12 Use Rate Per Acre		
	14 Fl Oz / Acre	26 Fl Oz / Acre	35 Fl Oz / Acre
200	140	260	350
250	112	208	280
300	93	173	233
350	80	148	200
400	70	130	175
450	62	114	154

**Restrictions:**

- Do not impregnate **A308.12** onto coated ammonium nitrate, potassium nitrate, or sodium nitrate either alone or in blends with other fertilizers because these materials will not absorb the herbicide.

- Do not use **A308.12** alone or in mixtures on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.
- To avoid crop injury, do not use the herbicide/fertilizer mixture on crops where bedding occurs.

**Application with Liquid Fertilizer:**

**A308.12** may be applied using liquid fertilizer or fertilizer and water mixtures as the carrier. Adequate soil coverage is essential to achieve acceptable levels of weed control.

Herbicide mixing, solution stability and/or compatibility problems may occur when liquid fertilizers are used as a carrier. Compatibility tests must be conducted prior to mixing to insure tank mixture compatibility and stability. The use of compatibility agents may be beneficial to achieve and maintain a homogenous solution.

**Mixing Instructions for Liquid Fertilizer Applications:**

Fill the clean spray tank to one half of the total volume with the fertilizer solution. Start the spray tank agitation system. Pre-slurry **A308.12** with water prior to adding to the spray tank. Carefully rinse the empty container, adding the rinsate to the spray tank.

Complete filling the spray tank to the desired level. Sufficient and continuous spray tank agitation is required at all times to maintain a homogenous spray solution. The spray system must be designed such that there is sufficient flow capacity to uniformly apply the spray mixture and maintain adequate tank agitation. Some systems may require separate pumps to simultaneously supply the spray system and the spray tank agitation system. Ensure the **A308.12** slurry is thoroughly mixed before application. For tank mixtures with other herbicide(s), a compatibility test must be conducted to insure product compatibility before mixing. Read and follow all the directions, precautions and restrictions of the tank mixture products prior to mixing.

Apply the **A308.12** spray mixture immediately after mixing. It is not recommended to store the sprayer overnight or for any extended period of time with the **A308.12** spray mixture remaining in the tank. Thoroughly re-agitate spray mixture if product is left sitting in the tank for extended period of time.

If **A308.12** is mixed and loaded in nurse tanks, thorough agitation of spray solution is required prior to off-loading and application.

Follow all **A308.12** label directions regarding product use rates per acre, registered crops, application instructions, incorporation directions, special instructions and all precautions.

All individual state regulations relating to liquid fertilizer blending, storage, transportation, registration, labeling, and application are the responsibility of the individual and/or company preparing, selling or applying the **A308.12** and fertilizer mixture.

## MANDATORY SPRAY DRIFT MANAGEMENT

### Aerial Applications:

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- If the wind speed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the wind speed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

### Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select the nozzles and pressure that deliver medium or coarser droplets (ASABE S572).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

### Boomless Ground Applications:

- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplet size (ASABE S572.3) for all applications.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

### **Spray Drift Advisories**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### **Controlling Droplet Size – Ground Boom**

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### **Controlling Droplet Size – Aircraft**

- **Adjust Nozzles** - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **BOOMLESS GROUND APPLICATIONS:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

### **HANDHELD TECHNOLOGY APPLICATIONS:**

Take precautions to minimize spray drift.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

### **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### **Off-Target Movement of A308.12:**

Drift of dilute spray mixtures containing **A308.12** must be prevented. Observation of the environmental conditions, correct application equipment design, calibration and application practices will reduce the risk of off-target spray drift. **A308.12** can cause damage by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by **A308.12** drift mixtures. Depending on sensitivity of the plants, the concentration of the spray solution and droplets size these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but can reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In drift instances with sensitive crops, defoliation of affected foliage could result.

### **MAXIMUM ALLOWABLE A308.12 for Dry Beans & Peas, and Soybeans USE PER ACRE PER 12 MONTH CROPPING YEAR PERIOD**

The total allowed usage includes all applications made to the field per twelve-month cropping year. This includes all pre-plant and after plant pre-emerge treatments.

### **Restrictions:**

- Do not exceed maximum allowed use rate of sulfentrazone or metolachlor on each crop. Refer to the crop section of this label for specific product use directions.
- Do not exceed 38.7 fl. oz./A of **A308.12**, equal to 0.21 lb. sulfentrazone ai/A; and 1.90 lbs. metolachlor ai/A.

### **CROP ROTATIONAL RESTRICTIONS**

The following Table, **CROP ROTATIONAL RESTRICTIONS**, shows the minimum interval in months from the time of the last **A308.12** application until **A308.12** treated soil can be replanted to the crops listed. When **A308.12** is tank mixed with another herbicide, refer to the partner label for re-cropping instructions, following the directions that are most restrictive.

- Some crops have rotational intervals greater than 12 months after a **A308.12** application due to potential crop injury. A representative bioassay of the field shall be completed with the rotational crop to accurately determine the planned crop's sensitivity to **A308.12**.

**CROP ROTATIONAL RESTRICTIONS**

Crop	Interval (Months)	Crop	Interval (Months)
Alfalfa*	12	Potatoes	2
Barley	4.5	Rice	10
Cabbage	2	Rye	4.5
Cereal Grains (Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice)	12	Sorghum	10
Buckwheat	12	Soybeans	Anytime
Corn, Field	12	Sugar Beets	36
Corn, Pop, Sweet	18	Triticale	4.5
Cotton	18	Tobacco	10
Dry Shell Peas and Beans	Anytime	Tomato	2
Horseradish	2	Wheat	4.5

\* To avoid injury to rotational alfalfa, (1) Do not apply more than 1.9 lb ai metolachlor per acre in the previous crop, and (2) Do not make lay-by or other postemergent applications of products containing metolachlor in the previous crop.

For all other crops not listed, the rotation interval is a minimum of 12 months with a representative bioassay to determine crop safety before planting.

**REPLANTING INSTRUCTIONS**

If initial planting of labeled crops fails to produce a stand, only crops labeled for **A308.12** or the tank mix partner; whichever is most restrictive, may be planted based on the amount of product initially applied. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

**Restrictions:**

- Do not retreat field with **A308.12** or other herbicide containing sulfentrazone and metolachlor.
- Do not plant treated fields to any crop at intervals that are inconsistent with the Rotational Crop Guidelines on this label.

**BAND TREATMENT APPLICATIONS**

For band treatments, apply the broadcast equivalent rate and volume per acre. To determine these:

Band width in inches	X	Broadcast rate per acre	=	Band Rate
Row width in inches				

Band width in inches	X	Broadcast volume per acre	=	Band volume
Row width in inches				

**MIXING AND LOADING INSTRUCTIONS**

### **A308.12 Applied Alone**

Select the proper labeled application rate of **A308.12** from the appropriate crop section. Fill the spray tank with approximately one-half of the volume of water needed for the acreage being treated. With agitator operating, add the required amount of **A308.12** for acreage being treated. Allow the product to fully disperse. Complete the addition of spray water. Maintain agitation during filling, mixing and application. Apply the **A308.12** spray mixture immediately after mixing.

### **A308.12 Applied in Tank Mix Combination**

Select the proper labeled application rate of A308.11 from the appropriate crop section. Read and follow all applicable use directions, precautions and restrictions on the respective tank mix product labels. To ensure product compatibility, conduct a jar test before large volume mixing. Provided the jar test indicates the mixture is compatible, prepare the tank mixture as follows.

Fill the spray tank with approximately one-half of the volume of water needed for the acreage being treated. With agitator operating, add the required amount of **A308.12** for the acreage being treated by opening the bottle(s) and measuring directly into the spray tank. Allow the product to fully disperse. Next, add the amount(s) of the additional tank mix product(s) in the following order: first dry formulations (e.g., wettable powders, dry flowables), next liquid suspensions (e.g., flowables) and finally liquids (e.g., EC's). Allow time for complete mixing and dispersion after each addition, adding water as necessary. Complete the addition of spray water. Maintain agitation during filling, mixing and application. Use **A308.12** tank mixtures immediately after mixing.

### **SPRAYER EQUIPMENT CLEAN-OUT**

As soon as possible after spraying **A308.12** and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop affects using the following procedure. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with **A308.12** as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.
2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.
3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.
4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.
5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with **A308.12** solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.



Should small quantities of **A308.12** remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. Atticus accepts no liability for any effects due to inadequately cleaned equipment.

Do not drain or flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other crops.

**SOYBEANS**

<b>A308.12 Use Rate</b>			
Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	Fluid Ounces of A308.12 per Acre		
% Organic Matter	Soil Texture		
	Coarse	Medium	Fine
<1.5	19-25	25-32	25-32
1.5 – 3	25	25-32	25-32
>3	25	25-32	32-38.7
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories For soils with pH > 7.2 use the lowest rate for that specific soil texture and organic matter.			

**Weeds Controlled:**

The following is a general list of weeds for which **A308.12** has shown control or suppression. The level of control will vary per use rate, cropping system, environmental conditions, moisture levels and soil type. **A308.12** may not control all of the weeds listed under all crop conditions.

Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, spiny	<i>Amaranthus, spinosus</i>
Amaranth, spleen	<i>Amaranthus dubius</i>
Barnyardgrass	<i>Echinochloa crus-galli (L.) Beauv.</i>
Broadleaf signalgrass	<i>Urochloa platyphylla (Nash) R. D.</i>
Copperleaf, hophornbeam	<i>Acalypha ostryifolia Riddell</i>
Crabgrass spp.	<i>Digitaria spp.</i>
Crowfootgrass	<i>Dactyloctenium aegyptium (L.) Willd.</i>
Cupgrass, Prairie	<i>Eriochloa contracta Hitchc.</i>
Cupgrass, Southwestern	<i>Eriochloa acuminata (J. Presl) Kunth</i>
Fall Panicum	<i>Panicum dichotomiflorum Michx.</i>
Florida Pusley	<i>Richardia scabra L.</i>
Foxtail, Giant	<i>Setaria faberi Herrm.</i>
Foxtail, Green	<i>Setaria viridis (L.) Beauv.</i>
Foxtail, Robust	<i>Setaria viridis var. robusta</i>
Foxtail, Yellow	<i>Setaria glauca (L.) Beauv.</i>
Foxtail, bristly	<i>Setaria verticillata (L.) Beauv.</i>
Goosegrass	<i>Eleusine indica (L.) Gaertn.</i>
Groundcherry, cutleaf	<i>Physalis angulate L.</i>
Hairy galinsoga	<i>Galinsoga ciliata (Raf) Blake</i>
Kochia (ALS and Triazine Resistant)	<i>Kochia scoparia (L.) Schrad</i>
Lambsquarters, common	<i>Chenopodium album</i>
Morningglory, entireleaf	<i>Ipomea hederacea integriusc</i>
Morningglory, ivyleaf	<i>Ipomea hederacea</i>
Morningglory, Palmleaf	<i>Ipomea Wrightii</i>
Morningglory, pitted	<i>Ipomoea lacunosa L.</i>
Morningglory, purple	<i>Ipomea turbinata</i>

Morningglory, red	<i>Ipomea coccinea</i>
Morningglory, scarlet	<i>Ipomea hederifolia</i>
Morningglory, small flower	<i>Jacquemontia tamnifolia (L.) Griseb.</i>
Morningglory, tall	<i>Ipomea, purpurea</i>
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, eastern black	<i>Solanum americanum</i>
Pigweed, red root	<i>Amaranthus retroflexus</i>
Pigweed, spiny	<i>Amaranthus</i>
Sida, prickly	<i>Sida spinosa L.</i>
Smartweed, Pennsylvania (seedling)	<i>Polygonum pennsylvanicum L.</i>
Star of Bethlehem	<i>Omithogalum umbellatum L.</i>
Texas panicum	<i>Panicum texanum L</i>
Thistle, Russian	<i>Salsola tragus L.</i>
Tropical Spiderwort	<i>Commelina benghalensis L.</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>
Witch grass	<i>Panicum capillare L.</i>
<b>SEDGES (suppression only)</b>	
Nutsedge, purple	<i>Cyperus rotundus</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>
Sedge, annual	<i>Cares spp.</i>

#### Fall Applications:

**A308.12** may be applied as a fall treatment to the stubble of harvested crops for preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. Fall applications of **A308.12** must be made in weed control programs that include, as needed, spring application of preplant, preemergence or postemergence herbicides for the following crop season. Applications to ridge till production systems must be made after the formation of ridges or bedded. Apply when the sustained soil temperature at a 4-inch depth is less than 55°F and falling.

If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates.

#### For Fall Application:

- Apply after September 30 in ND, SD, MN, WI and north of Route 30 in IA.
- Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- Apply after October 31 north of Route 136 in IL.
- Do not make fall applications south of Interstate 70.

#### Early Preplant, Preplant Incorporated, and Preemergence Applications (Spring Applications):

Use on medium to fine soils with minimum tillage or no-tillage systems in CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV and WY. **A308.12** can be applied Early Preplant, Preplant Incorporated or Preemergence up to 3 days after planting but prior to emergence. For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. **A308.12** applied near or after crop emergence may cause severe injury to the crop. **A308.12** can be applied alone or in combination with other soybean herbicides, including those containing sulfentrazone, as long as the sulfentrazone active ingredient rate does not exceed 0.375 lb a.i./A per season. Do not apply more than 2.387 lb a.i./A metolachlor per season. **A308.12** may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. When using **A308.12** in no-till or minimum till cropping systems, tank mix with

an appropriate burndown herbicide for improved control of existing weeds. Apply on coarse soils no more than 2 weeks prior to planting.

**Precautions:**

- When applying **A308.12** with other registered herbicides, refer to specific label information on precautions, restrictions, instructions, limitations, application methods and timings, and weeds controlled.

**Restrictions:**

- The maximum single application rate for **A308.12** is 38.7 fl oz/A the equivalent of 0.21 lb sulfentrazone + 1.91 lb Metolachlor lb a.i./A.
- The maximum annual application rate for **A308.12** is 38.7 fl oz/A the equivalent of 0.21 lb sulfentrazone + 1.91 lb Metolachlor lb a.i./A.
- Do not apply within 90 days of harvest
- Do not graze or feed treated forage or hay from soybeans to livestock following a post-emergence application.
- Do not graze or feed treated soybean forage, hay or straw to livestock for 30 days after treatment.
- Do not use on soils classified as sand, which have less than 1 % organic matter.
- Do not apply to frozen soils or existing snow cover to prevent **A308.12** runoff from rain or snowmelt that may occur following application.
- Do not apply after crop seed germination.

**DRY SHELLED BEANS AND PEAS**

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*)(includes field bean, black bean, kidney bean, lima bean (dry), navy bean, pink bean, pinto bean, tepary bean), small red bean, great northern bean; bean (*Vigna*) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea moth bean, lentil, mung bean, rice bean, southern pea, urd bean); broad bean (dry); guar; lab lab bean; pea (*Pisum*) (includes field pea and chickpea) and pigeon pea.

A308.12 Use Rate			
Fall or Spring Early Preplant, Preemergence and Preplant Incorporated Applications			
Broadcast Rate	Fluid ounces of A308.12 per acre		
% Organic Matter	Soil Texture		
	Coarse	Medium	Fine
<1.5	13-17	17-26	17-26
1.5 – 3	17-26	21-34	26-34
>3	21-34	26-38.7	30-38.7
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories For soils with pH > 7.2 use the lowest rate for that specific soil texture and organic matter.			

**Weeds Controlled:**

The following is a general list of weeds for which **A308.12** has shown control or suppression. The level of control will vary per use rate, cropping system, environmental conditions, moisture levels and soil type. **A308.12** may not control all of the weeds listed under all crop conditions. For crops where lower use rates are needed for crop tolerance refer to their specific weed list.

Amaranth, Palmer	Kochia (ALS and Triazine Resistant)	Pigweed, red root
Barnyardgrass	Lambsquarters, common	Pigweed, smooth
Fall Panicum	Morningglory, ivyleaf	Thistle, Russian
Foxtail, giant	Morningglory, tall	Waterhemp, common
Foxtail, green	Nightshade, black	Waterhemp, tall
Foxtail, yellow	Nightshade, Eastern black	Witch grass

Note: Partial control will occur under dry conditions, under heavy pest pressure or at low use rates under 26 fl oz/A. Under these conditions plan to use a labeled post-emergence herbicide for improved control.

#### **Fall Application**

**A308.12** may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. **A308.12** should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fall or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent **A308.12** runoff from rain or snow that may occur following application. **A308.12** may be tank mixed with other labeled herbicides to control emerged weeds. When activating moisture is not received a planned post-emergence application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1.0") is not received **A308.12** will provide a reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced. Fall application of **A308.12** may require a follow up grass herbicide treatment as grass escapes may occur. **A308.12** should be applied when the sustained soil temperature is 55°F and falling at a soil depth of 4 inches. Applications to ridge till production systems must be made after the formation of ridges or bedded.

#### **For Fall Application:**

- Apply after September 30 in ND, SD, MN and WI and north of Route 30 in IA.
- Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- Apply after October 31 north of Route 136 in IL.

**A308.12** can be tank mixed with other labeled herbicides. Observe all restrictions, precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

#### **Early Preplant and Preemergence (Spring Applications):**

**A308.12** can be applied early Preplant or Preemergence up to 3 days after planting if seedlings have not broken the soil surface and if the seed furrow is completely closed and completely covered with soil. Adequate moisture (1/2" to 1") is required for herbicide activation from rainfall. If adequate moisture is not received within 7 to 10 days after the **A308.12** treatment, a shallow incorporation (less than 2 inches) may be needed to obtain desired weed control. When activating moisture is not received a planned post-emergence application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1.0") is not received **A308.12** will provide a reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced.

If weeds are emerged at the time of **A308.12** application, use a burndown herbicide such as AIM herbicide, glyphosate or paraquat at the full-labeled rate in combination with **A308.12** as needed.

#### **Preplant Incorporated (PPI):**

**A308.12** can be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry beans and peas. **A308.12** should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating **A308.12** deeper than 2 inches can result in inconsistent weed control. Minimize furrow and ridge formation in the tillage operations. Use the appropriate rate from above table for the soil texture, soil organic matter, and soil pH level.

#### **Precautions:**

- Under extended periods of dry weather, adequate weed control may not be achieved. Adequate moisture (1/2" to 1") is required for herbicide activation from rainfall. If adequate moisture is not received within 7 to 10 days after the **A308.12** treatment, a shallow incorporation may be needed to obtain desired weed control. When activating moisture is not received a planned post-emergence application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1") is not received **A308.12** will provide a

reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced.

- Adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.2 or higher, or on highly eroded soils, hilltops, or in areas of calcareous outcroppings. **A308.12** use rates should be reduced to 13 fl oz/A in those areas or not applied in these areas at all. Inadequate seed furrow closure or shallow planting (less than 1.5 inch) may result in undesirable crop response and this product should not be applied. Poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of **A308.12** and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Product Application Instructions, **A308.12** Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled, Crop Liability Disclaimer and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with **A308.12**. Consult seed companies and university or extension weed management personnel for additional information on specific local varieties or cultivars and any other pertinent information on **A308.12** under specific local conditions.

**Restrictions:**

- The maximum single application rate for **A308.12** is 38.7 fl oz/A the equivalent of 0.21 lb sulfentrazone + 1.91 lb Metolachlor lb a.i./A.
- The maximum annual application rate for **A308.12** is 38.7 fl oz/A the equivalent of 0.21 lb sulfentrazone + 1.91 lb Metolachlor lb a.i./A.
- Do not apply additional sulfentrazone containing products to dry field beans and peas if **A308.12** has been previously applied within the same twelve month period.
- Do not apply after crop emerges, or if the seedling is close to the soil surface.
- Do not incorporate to depths greater than 2 inches.
- Do not apply to frozen soils or to existing snow cover to prevent **A308.12** runoff from rain or snow melt that may occur following application.
- Do not use on soils classified as sand, which have less than 1 % organic matter.
- Do not use for forage within 60 days after an application of **A308.12**.
- Do not cut for hay within 120 days after an application of **A308.12**.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area. Do not freeze. Do not store below 40°F. Carefully open containers. If crystals are observed, warm material to above 60°F by place in container in warm location. Shake or roll container periodically to redissolve solids. After partial use, replace lids and close tightly.

**Pesticide Disposal:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, 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.

### **Container Handling:**

**Nonrefillable containers ≤ 5 gallons:** Non-refillable 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 ¼ full with water and recap. Shake container 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. Then offer container for recycling, if available, or puncture and dispose of container in a sanitary landfill, or by incineration.

**Nonrefillable containers > 5 gallons:** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container ¼ 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. Then offer container for recycling, if available, or puncture and dispose of container in a sanitary landfill, or by incineration.

**Refillable Plastic 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.

## LIMITATION OF WARRANTY AND LIABILITY

**IMPORTANT: READ BEFORE USE.** Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. All such risks shall be assumed by the user or buyer. **DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law,

neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

**[A308.12]** is a trademark of Atticus, LLC

**{LANGUAGE ON LABEL AFFIXED TO CONTAINER}**

**A308.12™**

<b>Active Ingredients:</b>	(% by weight)
Sulfentrazone.....	7.55%
Metolachlor.....	68.25%
<b>Other Ingredients</b> .....	24.20%
<b>Total</b> .....	100.0%

Contains a total of 7.0 lb/gal which include 0.7 lb ai sulfentrazone and 6.3 lb ai metolachlor per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>Note to Physician:</b> Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at <b>1-844-685-9173</b> for emergency medical treatment information.	

**For Chemical Emergency**

**Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night**  
**Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
**CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some people. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish and marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

**Groundwater advisory:** Sulfentrazone and metolachlor are known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are

permeable, particularly where the water table is shallow. **Do not use on coarse soils classified as sand, which have less than 1% organic matter.**

**Surface water advisory:** This product can contaminate surface water through spray drift. This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or months after application. 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 loading of metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

**Physical/Chemical Hazards:**

Do not use or store near heat or open flame.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage and disposal.  
**Pesticide Storage:** Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area. Do not freeze. Do not store below 40°F. Carefully open containers. If crystals are observed, warm material to above 60°F by place in container in warm location. Shake or roll container periodically to redissolve solids. After partial use, replace lids and close tightly. **Pesticide Disposal:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, 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. **Container Handling: Nonrefillable containers ≤ 5 gallons:** Non-refillable 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 ¼ full with water and recap. Shake container 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. Then offer container for recycling, if available, or puncture and dispose of container in a sanitary landfill, or by incineration. **Nonrefillable containers > 5 gallons:** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container ¼ 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. Then offer container for recycling, if available, or puncture and dispose of container in a sanitary landfill, or by incineration. **Refillable Plastic 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.

See inside label booklet for additional Precautionary Statements and Directions for Use.

**Manufactured for:**  
 Atticus, LLC  
 5000 CentreGreen Way, Suite 100  
 Cary, NC 27513

**EPA Reg. No. 91234-65**  
**EPA Est. No. \_\_\_\_\_**  
**NET CONTENTS: \_\_\_\_\_**