

July 16, 2021

New York State Department
of Environmental Conservation
Division of Materials Management
Pesticide Product Registration

Docid:
574997

AMINOPYRALID GROUP 4 HERBICIDE



WHETSTONE™ HERBICIDE

For control of annual and perennial broadleaf weeds including invasive and noxious weeds, certain annual grasses, and certain woody plants and vines, on:

- rangeland, permanent grass pastures (including grasses grown for hay*), Conservation Reserve Program (CRP);
- non-crop areas for example, airports, barrow ditches, communication transmission lines, electric power and utility rights-of-way, fencerows, gravel pits, industrial sites, military sites, mining and drilling areas, oil and gas pads, non-irrigation ditch banks, parking lots, petroleum tank farms, pipelines, roadsides, railroads, storage areas, dry storm water retention areas, substations, unimproved rough turf grasses; and
- natural areas (open space) for example, campgrounds, parks, prairie management, trailheads and trails, recreation areas, wildlife openings, and wildlife habitat and management areas including seasonally dry flood plains, deltas, marshes, prairie potholes, or vernal pools;
- including grazed areas in and around these sites.

*Hay from grass treated with WHETSTONE HERBICIDE within the preceding 18-months can only be used on the farm or ranch where the product is applied unless allowed under specific use directions for certain states on this label.

Not for Sale, Sale into, Distribution, and/or Use in Nassau and Suffolk counties of New York State.

ACTIVE INGREDIENT:

Triisopropanolammonium salt of 2-pyridine
carboxylic acid, 4-amino-3,6-dichloro- 40.6%

OTHER INGREDIENTS: 59.4%

TOTAL: 100.0%

Acid Equivalent: aminopyralid (2-pyridine carboxylic acid,
4-amino-3,6-dichloro-) - 21.1% - 2 lb/gal

EPA Reg. No. 81927-82

EPA Est. No. 81927-AL-001^{PM}
7401-TX-001^{TX}

Letter(s) in lot number correspond(s) to superscript in EPA Est. No.

KEEP OUT OF REACH OF CHILDREN CAUTION

| FIRST AID | |
|--|---|
| If in eyes: | <ul style="list-style-type: none"> • 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. | |

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

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

Manufactured for:
Alligare, LLC
1565 5th Avenue
Opelika, AL 36801

Net Contents: 2.5 Gallons (9.46 liters)

EPA 20201002



PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- 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

Do not apply directly to water. Take care to minimize the incidental overspray along the shoreline when applying to terrestrial plants at the water's edge or to water in areas where surface water is present. Do not apply directly to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

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. Application around a cistern or well may result in contamination of drinking water or groundwater.

DIRECTIONS FOR USE

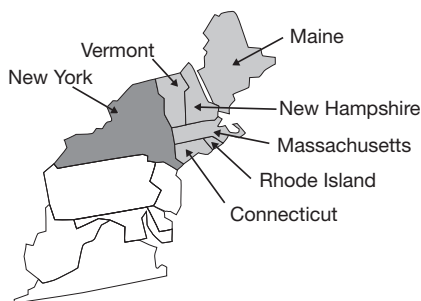
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

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

Not for Sale, Sale into, Distribution, and/or Use in Nassau and Suffolk counties of New York State.

Not for use on pastures in Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. All other labeled uses are permitted in these states including grazed areas in and around these sites.



Gray = states where use in pasture is not permitted.

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. 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 48 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 including polyethylene or polyvinyl chloride
- Shoes plus socks
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS does not pertain to nonagricultural use on sites, such as, rangeland, permanent grass pastures, or non-cropland. See the Agricultural Use Requirements section below for information where the WPS applies.

Entry Restrictions for Non-WPS Uses: For applications on rangeland and permanent grass pastures (not harvested for hay) and non-cropland areas, do not enter or allow worker entry into treated areas until sprays have dried.

Weed Resistance Management

This product is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

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

- Avoid the consecutive use of this product or other target site of action Group 4 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Scout fields prior to application to identify the weed species present and their growth state to determine if the intended application will be effective.
- Scout fields after application to verify that the treatment was effective and to monitor weed populations for early signs of resistance development.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Suspected herbicide-resistant weeds may be identified by these indicators:

- o Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;

- o A spreading patch of non-controlled plants of a particular weed species; and
- o Surviving plants mixed with controlled individuals of the same species.

Report any incidence of non-performance of this product against a particular weed species to your Alligare LLC retailer, representative or call 888-255-4427. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

Development of plant populations resistant to this herbicide mode of action is usually not a problem on rangeland, permanent grass pastures, Conservation Reserve Program (CRP), or non-cropland sites since these sites receive infrequent pesticide applications.

Use Precautions

- Applications made during periods of intense rainfall, to soils saturated with water, surfaces paved with materials such as asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of this product. Injury to crops may result if treated soil and/or runoff water containing this product is washed or moved onto land used to produce crops. Exposure to this product may injure or kill susceptible crops and other plants, such as grapes, soybeans, tobacco, sensitive ornamentals.
- **Grass revegetation:**
 - This product can be used to control broadleaf plants in grass revegetation programs. Consult your Alligare, LLC representative for more details about WHETSTONE™ HERBICIDE applications and grass stand establishment.
- **Application before seeding grasses**
 - This product can be applied to control broadleaf weeds prior to grass planting. Grass seed germination and seedling development can be adversely affected by many factors such as seed viability and seedling vigor, soil condition (sub-optimal soil temperatures or soil water content), weather after planting, seedbed preparation and seed placement, disease, insects, or animals. WHETSTONE HERBICIDE applications will help to reduce competition from weeds and improve the chance for successful grass stand establishment. Some grass species are more sensitive to this product; contact your Alligare, LLC representative for more details.
- **Postemergence applications on grass:** During the season of establishment, apply this product only after perennial grasses are well established (have developed a good secondary root system and show good vigor). Most perennial grasses are tolerant to this product at this stage of development. WHETSTONE HERBICIDE may suppress certain established grasses, such as smooth brome (*Bromus inermis*), especially when plants are stressed by adverse environmental conditions. Plants should recover from this transient suppression with the onset of environmental conditions favorable to grass growth and upon release from weed competition.
- **Seeding Broadleaf Plants (Forbs) and Wildflowers**

This product can be applied in the summer to control broadleaf weeds prior to forb planting. Forbs can be seeded 90 days after a summer application as a dormant fall planting or the following spring. Consult your Alligare, LLC representative for more details.
- **Field Bioassay Instructions:** In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, rainfall pattern or drainage. The field bioassay can be initiated one year after the last application of aminopyralid in that field. Observe the test crop for symptoms of herbicidal activity, such as poor stand (effect on seed

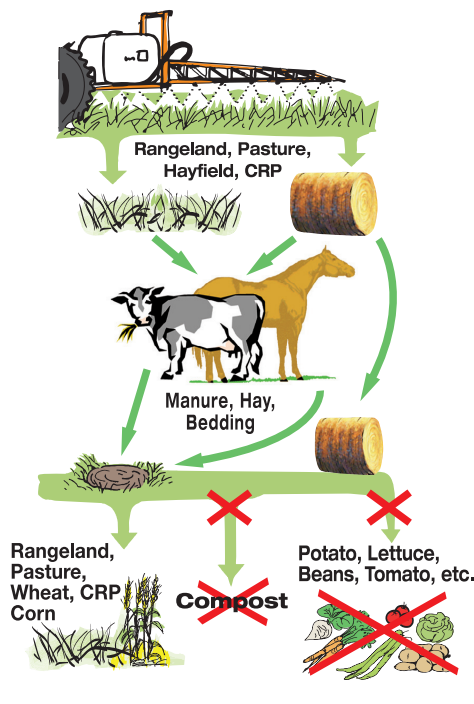
germination), chlorosis (yellowing), epinasty, and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the intended rotational crop; plant only to wheat, corn, forage grasses, native grasses or grasses grown for hay.

Consult with an Alligare, LLC representative if you do not understand the “Use Precautions and Restrictions.” Call (888) 255-4427 for more information.

IMPORTANT USE PRECAUTIONS AND RESTRICTIONS TO PREVENT INJURY TO DESIRABLE PLANTS

- Carefully read the section “*Restrictions in Hay or Manure Use.*”
- It is mandatory to follow the “*Use Precautions and Restrictions*” section of this label.
- Manure and urine from animals consuming grass or hay treated with this product may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- Hay can only be used on the farm or ranch where product is applied unless allowed under specific use directions for certain states on this label.
- Consult with an Alligare, LLC representative if you do not understand the “Use Precautions and Restrictions”. Call (888) 255-4427

Forage and Manure Management



Pasture and Rangeland Restrictions

- Do not use grasses treated with this product in the preceding 18-months for hay intended for export outside the United States.
- Hay from areas treated with this product in the preceding 18-months CANNOT be distributed or made available for sale off the farm or ranch where harvested unless allowed under specific use directions for certain states on this label.
- Hay from areas treated with this product in the preceding 18-months CANNOT be used for silage, haylage, baylage and green chop unless allowed under specific use directions for certain states on this label.
- Do not move hay made from grass treated with this product within the preceding 18-months off farm unless allowed under specific use directions for certain states on this label.
- Do not use hay or straw from areas treated with this product within the preceding 18-months or manure from animals feeding on hay treated with this product in compost.
- Do not use grasses treated with this product in the preceding 18-months for seed production.

Restrictions for All Uses

Maximum Application Rate: On all labeled use sites do not broadcast apply more than 7 fl. oz. (0.11 lb. ae) per acre of WHETSTONE HERBICIDE per year. The total amount of WHETSTONE HERBICIDE applied broadcast, as a re-treatment, and/or spot treatment cannot exceed 7 fl. oz. (0.11 lb. ae) per acre per year. Spot treatments may be applied at an equivalent broadcast rate of up to 14 fl. oz. (0.22 lb. ae) of WHETSTONE HERBICIDE per acre per year; however, not more than 50% of an acre may be treated at that rate. Do not apply more than a total of 7 fl. oz. (0.11 lb. ae) per acre of this product per year as a result of broadcast, spot or repeat applications.

Obtain Required Permits: Consult with appropriate state or local water authorities before applying this product around public waters. State or local public agencies may require permits.

- **Avoiding Injury to Non-Target Plants:** Do not aerially apply this product within 50 feet of a border downwind (in the direction of wind movement), or allow spray drift to come in contact with, any broadleaf crop or other desirable broadleaf plants, including, but not limited to, alfalfa, cotton, dry beans, flowers, grapes, lettuce, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes or other broadleaf or vegetable crop, fruit trees, ornamental plants, or soil where sensitive crops are growing or will be planted. Avoid application under conditions that may allow spray drift because very small quantities of spray may seriously injure susceptible crops. Read and consider the "Precautions for Avoiding Spray Drift and Spray Drift Advisory" to help minimize the potential for spray drift.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- **Do not contaminate water intended for irrigation or domestic purposes.** Do not treat inside banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes.
- Do not apply this product to lawns, turf, ornamental plantings, urban walkways, driveways, tennis courts, golf courses, athletic fields, commercial sod operations, or other high-maintenance, fine turfgrass areas, or similar areas.
- Trees adjacent to or in a treated area can occasionally be affected by root uptake of this product. Do not apply WHETSTONE HERBICIDE within the root zone of desirable trees unless such injury can be tolerated. Use special caution near roses, and leguminous trees such as locusts, redbud, mimosa, and caragana.
- Do not treat frozen soil where runoff could damage sensitive plants.
- **Grazing and Haying Restrictions:** There are no restrictions on grazing or grass hay harvest following application of this product at labeled rates. Cutting hay too soon after spraying weeds will reduce weed control. Wait 14 days after herbicide application to cut grass hay to allow herbicide to work. Do not transfer grazing animals from areas treated with this product to areas where sensitive broadleaf crops occur without first allowing 3 days of grazing on an untreated pasture. Otherwise, urine and manure may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- **Grazing Poisonous Plants:** Herbicide application may increase palatability of certain poisonous plants. Do not graze treated areas until poisonous plants are dry and no longer palatable to livestock.
- **Restrictions in Hay or Manure Use:**
 - o Do not use aminopyralid-treated plant residues, including grass, wood plants, trees, hay or straw from areas treated within the preceding 18-months, in compost, mulch wood chips, or mushroom spawn.
 - o Do not use manure from animals that have eaten aminopyralid-treated forage or hay within the previous 3 days in compost, mulch or mushroom spawn. Livestock must have 3 days of eating nonaminopyralid-treated materials in order to clear their system of aminopyralid. Do not use aminopyralid-treated plants in areas where commercially grown mushrooms or susceptible broadleaf plants may be grown.
 - o Do not spread manure from animals that have consumed aminopyralid-treated forage or hay within the previous 3 days on land used for growing susceptible broadleaf crops.
 - o Manure from animals that have consumed aminopyralid-treated forage or hay within the previous 3 days may only be used on areas used for pasture, grass grown for seed, wheat and corn.
 - o Do not plant a broadleaf crop (including soybeans, sunflower, tobacco, vegetables, field beans, peanuts, and potatoes) in fields or areas treated with aminopyralid or manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas until an adequately sensitive field bioassay is conducted to determine that the aminopyralid concentration in the soil is at level that is not injurious to the crop to be planted.
 - o Do not plant a broadleaf crop in fields or areas treated in the previous year with manure from animals that have consumed aminopyralid-treated forage or hay until an adequately sensitive field bioassay is conducted to determine that the aminopyralid concentration in the soil is at level that is not injurious to the crop to be planted.
 - o To promote herbicide decomposition, plant residues should be evenly incorporated in the surface soil or burned. Breakdown of aminopyralid in plant residues or manure is more rapid under warm, moist soil conditions and may be enhanced by supplemental irrigation.
- **Crop Rotation:** Do not rotate to any crop from rangeland, permanent pasture or CRP acres within one year following treatment. Cereals and corn can be planted one year after treatment. Broadleaf crops are sensitive to aminopyralid residues in the soil and prediction of crop safety by field bioassay (see instructions below) is the BEST way to determine planting options. Broadleaf crops such as canola, flax, and alfalfa can require at least 2 to 3 years depending on the crop and environmental conditions. More sensitive crops such as soybeans, tobacco, peanuts, potatoes, and peas may require a longer plant back interval and should not be planted until a field bioassay shows that the level of aminopyralid present in the soil will not adversely affect that broadleaf crop.

Grass Harvested for Hay Intended for Distribution or Sale off the Farm or Ranch and Grass Harvested for Silage, Haylage, Baylage, or Green Chop Intended for Use On the Farm or Ranch

(For use only in the states of AL, AR, AZ, CO, FL, GA, ID, KS, KY, LA, MO, MS, MT, ND, NE, NV, NM, OK, SD, TN, TX, UT, WY)

Restrictions

- It is mandatory to follow the **Use Precautions and Restrictions** section of this label.
- Manure and urine from animals consuming treated grass or forage may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- The Applicator must provide the land manager with a copy of the Alligare, LLC Stewardship instructions regarding uses of forage from areas treated with aminopyralid.
- Do not use grasses treated with WHETSTONE HERBICIDE in the preceding 18-months for hay intended for export outside the United States.
- Do not use hay or straw from areas treated with WHETSTONE HERBICIDE within the preceding 18-months, or manure from animals feeding on hay treated with WHETSTONE HERBICIDE, in compost.
- Do not use grasses treated within the preceding 18-months for seed production.
- Do not use on Timothy hay or other cool-season grasses grown for hay.
- Do not overseed ryegrass for 4 months after treatment.
- **WHETSTONE HERBICIDE is highly active against many broadleaf plant species.** Do not use this product on areas where loss of desirable broadleaf forage plants, including legumes, cannot be tolerated.
- **Seeding Legumes:** Do not plant forage legumes until a soil bioassay has been conducted to determine if aminopyralid or metsulfuron concentration remaining in the soil will adversely affect the legume establishment
- **Grazing and Haying Restrictions:** There are no restrictions on grazing or grass hay harvest following application of WHETSTONE HERBICIDE at labeled rates. Cutting hay too soon after spraying weeds will reduce weed control. Wait 14 days after herbicide application to cut grass hay to allow herbicide to work. Do not transfer grazing animals from areas treated with WHETSTONE HERBICIDE to areas where sensitive broadleaf crops occur without first allowing 3 days of grazing on an untreated pasture. Otherwise, urine and manure may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- **Grazing Poisonous Plants:** Herbicide application may increase palatability of certain poisonous plants. Do not graze treated areas until poisonous plants are dry and no longer palatable to livestock.
- **Transfer of Animals Feeding on WHETSTONE HERBICIDE-Treated Forage:** Do not transfer animals grazing or feeding on hay from areas treated with WHETSTONE HERBICIDE to areas where sensitive broadleaf crops occur without first allowing 3 days of grazing on an untreated pasture. Otherwise, urine and manure may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- **Restrictions in Hay or Manure Use:**
 - Do not use treated plant residues, including hay or straw from areas treated within the preceding 18-months in compost, mulch or mushroom spawn.
 - Do not use manure from animals that have grazed forage or eaten hay harvested from treated areas within the previous 3 days, in compost, mulch or mushroom spawn.
 - Do not spread manure from animals that have grazed or consumed forage or hay from treated areas within the previous 3 days on land

used for growing broadleaf crops.

- Manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas within the previous 3 days may only be used on pasture grasses, grass grown for seed, and wheat.
- Do not plant a broadleaf crop in fields treated in the previous year with manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas until an adequately sensitive field bioassay is conducted to determine that the aminopyralid residues in the soil is at level that is not injurious to the crop to be planted.
- To promote herbicide decomposition, plant residues should be evenly incorporated in the surface soil or burned. Breakdown of aminopyralid in plant residues or manure is more rapid under warm, moist soil conditions and may be accelerated by supplemental irrigation.
- **Crop Rotation:** Do not rotate non-cropland to cropland for one year following an application of WHETSTONE HERBICIDE. Do not plant a broadleaf crop until an adequately sensitive field bioassay shows that the level of aminopyralid present in the soil will not adversely affect that broadleaf crop.
 - Trees adjacent to or in a treated area can occasionally be affected by root uptake of WHETSTONE HERBICIDE through movement into the soil. Do not apply WHETSTONE HERBICIDE within the root zone of desirable trees unless such injury can be tolerated. Use special caution near roses, and leguminous trees such as locusts, redbud, mimosa, and caragana.

Field Bioassay Instructions: In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, rainfall pattern or drainage. The field bioassay can be initiated one year after the last application of aminopyralid in that field. Observe the test crop for symptoms of herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the intended rotational crop; plant only to wheat, forage grasses, native grasses or grasses grown for hay.

Rangeland, Permanent Grass Pastures, CRP Acres, Non-Cropland Areas, Non-Irrigation Ditch Banks, Natural Areas, and Grazed Areas In and Around These Sites (WA only)

- Carefully read the section **Restrictions in Hay or Manure Use.**
- It is mandatory to follow the **Use Precautions and Restrictions** section of this label.
- Manure and urine from animals consuming grass or hay treated with this product may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- Hay can only be used on the farm or ranch where product is applied unless allowed under specific use directions for certain states on this label.

Pasture and Rangeland Restrictions

- Do not use grasses treated with WHETSTONE HERBICIDE in the preceding 18-months for hay intended for export outside the United States.
- Hay from areas treated with WHETSTONE HERBICIDE in the preceding 18-months CANNOT be distributed or made available for sale off the farm or ranch where harvested unless under specific use directions for certain states on this label.
- Hay from areas treated with WHETSTONE HERBICIDE in the preceding 18-months CANNOT be used for silage, haylage and baylage and green chop unless allowed under specific use directions for certain states on this label.

- Do not move hay made from grass treated with WHETSTONE HERBICIDE within the preceding 18-months off farm unless allowed under specific use directions for certain states on this label.
- Do not use hay or straw from areas treated with WHETSTONE HERBICIDE within the preceding 18-months or manure from animals feeding on hay treated with WHETSTONE HERBICIDE in compost.
- Do not use grasses treated with WHETSTONE HERBICIDE in the preceding 18-months for seed production.

Spray Drift Management

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

Avoid application under conditions that may allow spray drift because very small quantities of spray, which may not be visible, may injure susceptible crops. This product should be applied only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, non-target crops and other plants) is minimal (e.g., when wind is blowing away from the sensitive areas). A drift control aid may be added to the spray solution to further reduce the potential for drift. If a drift control aid is used, follow the use directions and precautions on the manufacturer's label. Do not use a thickening agent with Microfoil, Thru-Valve booms, or other spray delivery systems that cannot accommodate thickened spray solutions.

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.

Ground Equipment: With ground equipment spray drift can be lessened by keeping the spray boom as low as possible; by applying 10 gallons or more of spray per acre; by keeping the operating spray pressures at the manufacturer's specified minimum pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); and by spraying when the wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to thermal inversions. Direct sprays no higher than the tops of target vegetation and keep spray pressures low enough to provide coarse spray droplets to minimize drift.

Aerial Application: Avoid spray drift at the application site. The interaction of many equipment- and weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The boom length must not exceed 75% of the fixed wingspan and must be located at least 8-10 inches below the trailing edge of the fixed wing; the boom length must not exceed 85% of the rotary blade.
2. Nozzles should be pointed backward parallel with the air stream or not pointed downwards more than 45 degrees.

State and local regulations must be followed.

The applicator should be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory**. This information is advisory in nature and does not supersede mandatory label requirements.

Aerial Drift Reduction Advisory

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

Controlling Droplet Size:

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

Boom Length: The distance of the outer most operating nozzles on the boom must not exceed 75% of wingspan for airplanes or 85% of rotor blade diameter for helicopters.

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

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

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

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

Temperature Inversions: Applications should not occur during a local, low-level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not

present, inversions can also be identified by the movement of the 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.

Sprayer Clean-Out Instructions

It is recommended to use separate spray equipment on highly sensitive crops such as tobacco, soybeans, potatoes, peanuts and tomatoes.

Do not use spray equipment used to apply this product for other applications to land planted to, or to be planted to, broadleaf plants unless it has been determined that all residues of this herbicide have been removed by thorough cleaning of equipment.

Equipment used to apply this product should be thoroughly cleaned before reusing to apply any other chemicals as follows:

1. Rinse and flush application equipment thoroughly after use. Dispose of rinse water in non-cropland area away from water supplies.
2. Rinse a second time, adding 1 quart of household ammonia or tank cleaning agent for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Spray nozzles and screens should be removed and cleaned separately.

- Do not apply this product with mist blower systems that deliver very fine spray droplets. Use of mist blower equipment can reduce control achieved with the herbicide and increase spray drift potential.

Use Information

Apply the specified rate of this product as a coarse low-pressure spray. Do not apply this product with mist blower systems that deliver very fine spray droplets. Spray volume should be sufficient to uniformly cover foliage or intended application site. Increase spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. To enhance foliage wetting and coverage, a non-ionic agricultural surfactant or other adjuvant may be added to the spray mixture as specified by the adjuvant label.

This product may be applied by ground or aerial application equipment on any registered use site specified on this label.

Ground Broadcast Application: Higher spray volumes (greater than 10 gallons per acre) generally provide better coverage and better control, particularly in dense and/or tall foliage.

Aerial Broadcast Application: Do not apply less than 2 gallons per acre total spray volume. Five gallons per acre or greater will generally provide better coverage and better control, particularly in dense and/or tall foliage.

High-Volume Foliar Application: High volume foliar treatments may be applied at rates equivalent to a maximum of 7 fl. oz. (0.11 lb. ae) per acre per year. Use sufficient spray volume to thoroughly and uniformly wet foliage and stems.

For basal bark and cut stubble and all types of cut surface applications, see woody plant section.

Low-Volume Foliar Treatment

To control susceptible woody plants, use WHETSTONE HERBICIDE alone or in tank mixes with other herbicides in water. The spray concentration of WHETSTONE HERBICIDE tank mixes and total spray volume per acre should be adjusted according to the size and density of target woody plants and type of spray equipment used. With low volume appli-

cation, use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems, and root collars.

For best results, an adjuvant should be added to all spray mixtures. Match equipment and delivery rate of spray nozzles to height and density of woody plants. When treating tall, dense brush, a truck mounted spray gun with spray tips that deliver up to 2 gallons per minute at 40 to 60 psi may be required. Backpack or other types of specialized spray equipment with spray tips that deliver less than 1 gallon of spray per minute may be appropriate for short, low to moderate density brush.

Spot Application: Spot treatments may be applied at an equivalent broadcast rate of up to 14 fl. oz. (0.22 lb. ae) WHETSTONE HERBICIDE per acre per year; however, not more than 50% of an acre may be treated at that rate. Do not apply more than a total of 7 fl. oz. (0.11 lb. ae) per acre of this product per year as a result of broadcast, spot or repeat applications. Spray volume should be sufficient to thoroughly and uniformly wet weed foliage, but not to the point of runoff. Repeat treatments may be made, but the total amount of this product applied must not exceed 7 fl. oz. (0.11 lb. ae) per acre per year. To prevent misapplication, spot treatments should be applied with a calibrated sprayer with a known volume per acre. Table 1 shows WHETSTONE HERBICIDE amount to mix for various sprayer outputs in gallons per acre (GPA)

Table 1: Amount of WHETSTONE HERBICIDE (in mL) to mix in 1 gallon of water

| Gallons per acre | WHETSTONE HERBICIDE amount (in mL) to mix to achieve target application rates | | | |
|------------------|---|-------------|-------------|--------------|
| | GPA | 5 fl. oz./a | 7 fl. oz./a | 14 fl. oz./a |
| 20 | | 7.5 | 10.5 | 21.0 |
| 30 | | 5.0 | 7.0 | 14.0 |
| 40 | | 3.8 | 5.3 | 10.5 |
| 50 | | 3.0 | 4.2 | 8.4 |
| 60 | | 2.5 | 3.5 | 7.0 |
| 70 | | 2.1 | 3.0 | 6.0 |
| 80 | | 1.9 | 2.6 | 5.3 |
| 90 | | 1.7 | 2.3 | 4.7 |
| 100 | | 1.5 | 2.1 | 4.2 |

Note: Table 1 above shows mixes for various sprayer outputs in gallons per acre (GPA).

Use a syringe to measure cc.

Conversions:

1 tsp = 5 mL 30 ml = 1 fluid ounce 1 cc = 1 mL
3 tsp = 1 Tbsp 2 Tbsp = 1 fluid ounce

Mixing Instructions

Mixing with Water: To prepare the spray, add about half the required amount of water in the spray tank. Then, with agitation, add the specified amount of this product and other herbicides, if tank mixing. Finally, with continued agitation, add the rest of the water and additives such as adjuvants, surfactants or drift control and deposition aids.

Addition of Surfactants or Adjuvants on All Labeled Use Sites: The addition of a high quality non-ionic surfactant (of at least 80% active principal) or adjuvant at 0.25 to 0.5 % volume per volume (1 to 2 quarts per 100 gallons of spray) is recommended to enhance herbicide activity under adverse environmental conditions (such as, high temperature, low relative humidity, drought conditions, dusty plant surfaces) or when weeds are heavily pubescent or more mature.

Tank Mixing with Other Herbicides: This product may be applied in tank mix combination with labeled rates of other herbicides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated and (2) mixing is not prohibited by the label of the tank mix product(s), and (3) that the tank mix combination is physically compatible (see tank mix compatibility testing below). When tank mixing,

use only in accordance with the restrictions, precautions and limitations on the respective product labels.

- 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.
- Do not exceed specified application rates. If products containing the same active ingredient are mixed, do not exceed the maximum allowable active ingredient use rates.
- For direct injection or other spray equipment where the product formulations will be mixed in undiluted form, special care should be taken to ensure tank mix compatibility.
- Always perform a jar test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: Perform a jar test prior to mixing in a spray tank to ensure compatibility of this product and other pesticides or carriers. Use a clear glass jar with lid and mix ingredients in the same order and proportions as will be used in the spray tank. The mixture is compatible if the materials mix readily when the jar is inverted several times. The mixture should remain stable after standing for 30 minutes or, if separation occurs, should readily remix if agitated. An incompatible mixture is indicated by separation into distinct layers that do not readily remix when agitated and/or the presence of flakes, precipitates, gels, or heavy oily film in the jar. Use of an appropriate compatibility aid may resolve mix incompatibility. If the mixture is incompatible do not use that tank mix partner in tank mixtures.

Invert emulsion spray mixtures

This product can be applied in an invert emulsion using oil and an appropriate inverting agent. Follow label directions of the inverting agent.

Mixing with Sprayable Liquid Fertilizer Solutions: This product is usually compatible with liquid fertilizer solutions. It is anticipated that WHETSTONE HERBICIDE will not require a compatibility agent for mixing with fertilizers; however, a compatibility test (jar test) should be made prior to mixing. Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when water sources change, or when tank mixture ingredients or concentrations are changed. Compatibility may be determined by mixing the spray components in the desired order and proportions in a clear glass jar before large scale mixing of spray components in the spray tank.

Note: The lower the temperature of the liquid fertilizer, the greater the likelihood of mixing problems. Use of a compatibility aid may be required if this product is mixed with a 2,4-D-containing product and liquid fertilizer. **Mixing WHETSTONE HERBICIDE and 2,4-D in N-P or N-P-K liquid fertilizer solutions is more difficult than mixing with straight nitrogen fertilizer and should not be attempted without first conducting**

Table 2: Weeds and Woody Plants Controlled

Note: Numbers in parentheses (-) refer to specific use directions for a particular weed species.

| Common Name | Scientific Name | Rate Range fl. oz./acre (lb. ae/acre) | Life Cycle | Plant Family |
|-------------------|-----------------------------------|---|------------|---------------|
| amaranth, spiny | <i>Amaranthus spinosus</i> | 4 to 7 (0.06 to 0.11) | annual | Amaranthaceae |
| bedstraw | <i>Galium</i> spp. | 4 to 7 (0.06 to 0.11) | perennial | Rubiaceae |
| beggarticks | <i>Bidens</i> spp. | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| broomweed, annual | <i>Amphichyris dracunculoides</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |

a successful compatibility jar test. Agitation in the spray tank must be vigorous to be comparable with jar test agitation. Apply the spray mixture the same day it is prepared while maintaining continuous agitation. Rinse the spray tank thoroughly after use.

Note: Foliar-applied liquid fertilizers themselves can cause yellowing of the foliage of forage grasses and other vegetation.

Use Rates and Timing

This product may be applied as a broadcast spray by ground or aerial equipment or as a spot application to control weeds including, but not limited to, those listed on this label. When a rate range is given, use the higher rate to control weeds at advanced growth stages or when under less-than-favorable growing conditions. For optimum uptake and translocation of this product, avoid mowing, haying, shredding, burning, or soil disturbance in treated areas for at least 14 days following application.

This product provides post emergence control and preemergence control of emerging seedlings of susceptible weeds, and re-growth of certain perennial weeds following application. Preventing establishment of weeds will depend upon application rate, season of application, and environmental conditions after application.

WHETSTONE HERBICIDE can provide long-term control of susceptible weeds. The length of control is dependent upon the application rate, condition and growth stage of target weeds, environmental conditions at and following application, and the density and vigor of competing desirable vegetation. Long-term weed control is most effective where grass vegetation is allowed to recover from overgrazing, drought, etc., and compete with weeds.

WHETSTONE HERBICIDE can be an important component of integrated vegetation management programs designed to renovate or restore desired plant communities. To maximize and extend the benefits of weed control provided by this product, it is important that other vegetation management practices, including proper grazing management, biological control agents, replanting, fertilization, prescribed fire, etc., be used in appropriate sequences and combinations to further alleviate the adverse effects of weeds on desirable plant species and to promote development of desired plant communities. Agricultural and natural resources specialists with federal and state government agencies can provide guidance on best management practices and development of integrated vegetation management programs.

Plants Controlled

The following weeds and woody plants will be controlled with the rates of WHETSTONE HERBICIDE indicated below (Table 2). For best results, most weeds and woody plants should be treated when they are actively growing and under conditions favorable for growth. Use a higher rate in the rate range when growing conditions are less than favorable or when weed foliage is tall and dense, or when optimal longer term residual control is desired. This product also provides preemergence control of germinating seeds or seedlings of susceptible weeds following application.

| Common Name | Scientific Name | Rate Range fl. oz./acre (lb. ae/acre) | Life Cycle | Plant Family |
|---------------------------|---------------------------------|---|-----------------|-----------------|
| burdock, common | <i>Arctium minus</i> | 4 to 7 (0.06 to 0.11) | biennial | Asteraceae |
| buttercup, hairy | <i>Ranunculus sardous</i> | 4 to 7 (0.06 to 0.11) | annual | Ranunculaceae |
| buttercup, tall | <i>Ranunculus acris</i> | 4 to 7 (0.06 to 0.11) | perennial | Ranunculaceae |
| buttercup spp. | <i>Ranunculus</i> spp. | 4 to 7 (0.06 to 0.11) | various | Ranunculaceae |
| camelthorn | <i>Alhagi pseudalhagi</i> | 5 to 7 (0.08-0.11) | perennial | Fabaceae |
| cat's ear, common | <i>Hypochaeris radicata</i> | 5 to 7 (0.08-0.11) | perennial | Asteraceae |
| cat's ear | <i>Hypochaeris</i> spp. | 5 to 7 (0.08-0.11) | perennial | Asteraceae |
| chamomile, scentless | <i>Matricaria inodora</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| chicory | <i>Cichorium intybus</i> | 4 to 6 (0.06 to 0.09) | perennial | Asteraceae |
| chickweed | <i>Stellaria media</i> | 7 (0.11) | annual | Caryophyllaceae |
| cinquefoil, sulfur (1) | <i>Potentilla recta</i> | 4 to 7 (0.06 to 0.11) | perennial | Rosaceae |
| cocklebur | <i>Xanthium strumarium</i> | 3 to 5 (0.05 to 0.08) | annual | Asteraceae |
| clover | <i>Trifolium</i> spp. | 5 to 7 (0.08-0.11) | perennial | Fabaceae |
| crazyweed | <i>Oxytropis</i> | 5 to 7 (0.08-0.11) | perennial | Fabaceae |
| croton, tropic | <i>Croton glandulosus</i> | 3 to 5 (0.05 to 0.08) | annual | Euphorbiaceae |
| crownvetch | <i>Securigera varia</i> | 5 to 7 (0.08-0.11) | perennial | Fabaceae |
| cudweed, purple | <i>Gamochoeta purpurea</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| daisy, oxeye (1) | <i>Leucanthemum vulgare</i> | 4 to 7 (0.06 to 0.11) | perennial | Asteraceae |
| dock, curly | <i>Rumex crispus</i> | 4 to 7 (0.06 to 0.11) | perennial | Polygonaceae |
| evening primrose, cutleaf | <i>Oenothera laciniata</i> | 4 to 7 (0.06 to 0.11) | annual | Onagraceae |
| fiddleneck | <i>Amsinckia</i> spp. | 4 to 7 (0.06 to 0.11) | annual | Boraginaceae |
| fireweed | <i>Epilobium angustifolium</i> | 5 to 7 (0.08-0.11) | perennial | Onagraceae |
| fleabane, flax-leaf | <i>Conyza bonariensis</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| fleabane, hairy | <i>Conyza bonariensis</i> | 5 to 7 (0.08-0.11) | annual/biennial | Asteraceae |
| hawkweed, orange (2) | <i>Hieracium aurantiacum</i> | 4 to 7 (0.06 to 0.11) | perennial | Asteraceae |
| hawkweed, yellow (2) | <i>Hieracium aurantiacum</i> | 4 to 7 (0.06 to 0.11) | perennial | Asteraceae |
| henbane, black | <i>Hyoscyamus niger</i> | 5 to 7 (0.08-0.11) | annual/biennial | Solanaceae |
| henbit | <i>Lamium amplexicaule</i> | 5 to 7 (0.08-0.11) | annual/biennial | Lamiaceae |
| hogweed, giant | <i>Heracleum mantegazzianum</i> | 7 (0.11) | perennial | Apiaceae |
| horsenettle, Carolina | <i>Solanum carolinense</i> | 4 to 7 (0.06 to 0.11) | perennial | Solanaceae |
| horseweed (marestail) | <i>Conyza canadensis</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| ironweed, tall | <i>Vernonia gigantea</i> | 5 to 7 (0.08-0.11) | perennial | Asteraceae |

| Common Name | Scientific Name | Rate Range fl. oz./acre (lb. ae/acre) | Life Cycle | Plant Family |
|------------------------------------|------------------------------------|---|--------------------|------------------|
| ironweed, western | <i>Vernonia baldwinii</i> | 7 (0.11) | perennial | Asteraceae |
| knapweed, diffuse (3) | <i>Centaurea diffusa</i> | 5 to 7 (0.08-0.11) | biennial/perennial | Asteraceae |
| knapweed, meadow | <i>Centaurea debeauxii</i> | 5 to 7 (0.08-0.11) | perennial | Asteraceae |
| knapweed, Russian (4) | <i>Acroptilon repens</i> | 5 to 7 (0.08-0.11) | perennial | Asteraceae |
| knapweed, spotted (3) | <i>Centaurea stoebe</i> | 5 to 7 (0.08-0.11) | biennial/perennial | Asteraceae |
| knapweed, squarrose | <i>Centaurea virgata</i> | 5 to 7 (0.08-0.11) | biennial/perennial | Asteraceae |
| knapweeds | <i>Centaurea</i> spp. | 5 to 7 (0.08-0.11) | biennial/perennial | Asteraceae |
| knotweeds, Japanese, bohemian (11) | <i>Reynoutria japonica</i> | 7-14 (0.11 to 0.22) | perennial | Polygonaceae |
| kudzu | <i>Pueraria montana</i> | 7 (0.11) | perennial | Fabaceae |
| lady's thumb | <i>Polygonum persicaria</i> | 3 to 5 (0.05 to 0.08) | annual | Polygonaceae |
| lambquarters | <i>Chenopodium album</i> | 5 to 7 (0.08-0.11) | annual | Chenopodiaceae |
| lespedeza, annual | <i>Lespedeza striata</i> | 5 to 7 (0.08-0.11) | annual | Fabaceae |
| licorice, wild | <i>Glycyrrhiza lepidota</i> | 7 (0.11) | perennial | Fabaceae |
| locoweed | <i>Astragalus</i> spp. | 5 to 7 (0.08-0.11) | perennial | Fabaceae |
| locust, black | <i>Robinia pseudoacacia</i> | 7 (0.11) | woody perennial | Fabaceae |
| locust, honey | <i>Gleditsia triacanthos</i> | 7 (0.11) | woody perennial | Fabaceae |
| loosestrife, purple (12) | <i>Lythrum salicaria</i> | 7-14 (0.11 to 0.22) | perennial | Lythraceae |
| mayweed, scentless | <i>Tripleurospermum perforatum</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| mayweed, stinking | <i>Anthemis cotula</i> | 7 (0.11) | annual | Asteraceae |
| medic, black | <i>Medicago lupulina</i> | 4 to 7 (0.06 to 0.11) | perennial | Fabaceae |
| mimosa | <i>Albizia julibrissin</i> | 7 (0.11) | woody perennial | Fabaceae |
| mullein (5) | <i>Verbascum</i> spp. | 7 (0.11) | biennial | Scrophulariaceae |
| nightshade, silverleaf | <i>Solanum elaeagnifolium</i> | 4 to 7 (0.06 to 0.11) | perennial | Solanaceae |
| oxtongue, bristly | <i>Picris echioides</i> | 5 to 7 (0.08-0.11) | biennial | Asteraceae |
| pea, Swainson | <i>Sphaerophysa salsula</i> | 5 to 7 (0.08-0.11) | perennial | Fabaceae |
| povertyweed | <i>Iva axillaris</i> | 5 to 7 (0.08-0.11) | perennial | Asteraceae |
| ragweed, common | <i>Ambrosia artemisiifolia</i> | 3 to 5 (0.05 to 0.08) | annual | Asteraceae |
| ragweed, western | <i>Ambrosia psilostachya</i> | 4 to 7 (0.06 to 0.11) | perennial | Asteraceae |
| ragweed, giant | <i>Ambrosia trifida</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| ragwort, tansy | <i>Senecio jacobaea</i> | 5 to 7 (0.08-0.11) | perennial | Asteraceae |
| redbud | <i>Cercis canadensis</i> | 7 (0.11) | woody perennial | Fabaceae |
| rush skeletonweed | <i>Chondrilla juncea</i> | 5 to 7 (0.08-0.11) | perennial | Asteraceae |

| Common Name | Scientific Name | Rate Range fl. oz./acre (lb. ae/acre) | Life Cycle | Plant Family |
|---------------------------------|---------------------------------|---|-----------------|----------------|
| sicklepod | <i>Cassia obtusifolia</i> | 7 (0.11) | perennial | Fabaceae |
| smartweed, Pennsylvania | <i>Polygonum pennsylvanicum</i> | 3 to 5 (0.05 to 0.08) | annual | Polygonaceae |
| sneezeweed, bitter | <i>Helenium amarum</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| soda apple, tropical (6) | <i>Solanum viarum</i> | 5 to 7 (0.08-0.11) | perennial | Solanaceae |
| sowthistle, annual | <i>Sonchus oleraceus</i> | 7 (0.11) | annual | Asteraceae |
| sowthistle, perennial | <i>Sonchus arvensis</i> | 3 to 5 (0.05 to 0.08) | perennial | Asteraceae |
| spanishneedles | <i>Bidens bipinnata</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| St. Johnswort, common | <i>Hypericum perforatum</i> | 5 to 7 (0.08-0.11) | perennial | Clusiaceae |
| stiltgrass, Japanese | <i>Microstegium vimineum</i> | 5 to 7 (0.08-0.11) | annual | Poaceae |
| starthistle, Malta (7) | <i>Centaurea melitensis</i> | 3 to 5 (0.05 to 0.08) | annual | Asteraceae |
| starthistle, purple (7) | <i>Centaurea calcitrapa</i> | 3 to 5 (0.05 to 0.08) | biennial | Asteraceae |
| starthistle, yellow (7) | <i>Centaurea solstitialis</i> | 3 to 5 (0.05 to 0.08) | annual | Asteraceae |
| sunflower, common | <i>Helianthus annuus</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| sweetclover, white | <i>Melilotus albus</i> | 5 to 7 (0.08-0.11) | biennial | Fabaceae |
| sweetclover, yellow | <i>Melilotus officinalis</i> | 5 to 7 (0.08-0.11) | biennial | Fabaceae |
| teasel | <i>Dipsacus</i> spp. | 4 to 7 (0.06 to 0.11) | biennial | Dipsacaceae |
| thistle, artichoke | <i>Cynara cardunculus</i> | 5 to 7 (0.08-0.11) | perennial | Asteraceae |
| thistle, blessed milk | <i>Silybum marianum</i> | 4 to 7 (0.06 to 0.11) | biennial | Asteraceae |
| thistle, bull (8) | <i>Cirsium vulgare</i> | 3 to 5 (0.05 to 0.08) | biennial | Asteraceae |
| thistle, Canada (9) | <i>Cirsium arvense</i> | 5 to 7 (0.08-0.11) | perennial | Asteraceae |
| thistle, woolly distaff | <i>Carthamus lanatus</i> | 4 to 7 (0.06 to 0.11) | annual | Asteraceae |
| thistle, Italian | <i>Carduus pycnocephalus</i> | 7 (0.11) | annual | Asteraceae |
| thistle, musk (8) | <i>Carduus nutans</i> | 3 to 5 (0.05 to 0.08) | biennial | Asteraceae |
| thistle, plumeless (8) | <i>Carduus acanthoides</i> | 3 to 5 (0.05 to 0.08) | biennial | Asteraceae |
| thistle, Scotch | <i>Onopordum acanthium</i> | 5 to 7 (0.08-0.11) | biennial | Asteraceae |
| thistle, Russian (preemergence) | <i>Salsola</i> spp. | 7 (0.11) | annual | Chenopodiaceae |
| tree of heaven | <i>Ailanthus altissima</i> | 7 (0.11) | perennial | Simaroubaceae |
| vetch | <i>Vicia</i> spp. | 3 to 7 (0.05 to 0.11) | perennial | Fabaceae |
| willoweed, panicle | <i>Epilobium brachycarpum</i> | 5 to 7 (0.08-0.11) | annual | Onagraceae |
| wisteria | <i>Wisteria brachybotris</i> | 7 (0.11) | woody perennial | Fabaceae |
| wormwood, absinth (10) | <i>Artemisia absinthium</i> | 6 to 7 (0.09 to 0.11) | perennial | Asteraceae |
| yarrow, common | <i>Achillea millefolium</i> | 7 (0.11) | perennial | Asteraceae |

- (1) **Sulfur cinquefoil or oxeye daisy:** Apply this product at 4 to 6 fl. oz. (0.06 to 0.09 lb. ae) per acre to plants in the prebud stage of development.
- (2) **Orange or yellow hawkweeds:** Apply this product at 4 to 7 fl. oz. (0.06 to 0.11 lb. ae) per acre to plants in the bolting stage of development.
- (3) **Diffuse, spotted, and squarrose knapweeds:** Apply this product at 5 to 7 fl. oz. (0.08 to 0.11 lb. ae) per acre when plants are actively growing with the optimum time of application occurring from rosette to the bolting stages of development or in the fall. Plants will be controlled by mid-summer and fall applications even though plants may not show any changes in form or stature the year of application.
- (4) **Russian knapweed:** Apply this product at 5 to 7 fl. oz. (0.08 to 0.11 lb. ae) per acre to plants in the spring and summer at early bud to flowering stages and to dormant plants in the fall.
- (5) **Mullein:** Apply to the rosette stage
- (6) **Tropical soda apple:** Apply this product at 5 to 7 fl. oz. (0.08 to 0.11 lb. ae) per acre at any growth stage, but application by flowering will reduce seed production potential.
- (7) **Malta, purple, and yellow starthistle:** Apply this product at 3 to 5 fl. oz. (0.05 to 0.08 lb. ae) per acre to plants at the rosette through bolting growth stages.
- (8) **Bull, musk, and plumeless thistles:** Apply this product at 3 to 5 fl. oz. (0.05 to 0.08 lb. ae) per acre in the spring and early summer to rosette or bolting plants or in the fall to seedlings and rosettes. Apply at 4 to 5 fl. oz. (0.06 to 0.08 lb. ae) when plants are at the late bolt through early flowering growth stages. 2,4-D at 1 lb ae/acre should be tank-mixed with this product starting at the late bud stages
- (9) **Canada thistle:** Apply this product at 5 to 7 fl. oz. (0.08 to 0.11 lb. ae) per acre in the spring after all plants have fully emerged (some may be budding) until the oldest plants are in full flower stage. Use the higher rate when applying to the flower stage. Applications are also effective in the fall before a killing frost. Use higher rates for older/dense stands or for longer residual control.
- (10) **Absinth wormwood:** Apply this product at 6 to 7 fl. oz. (0.09 to 0.11 lb. ae) per acre before wormwood is 12 inches tall. When applying by air on CRP, coverage is important and a minimum of 3 GPA is specified. Remove old duff and litter by fire or mowing for best results.
- (11) **Invasive knotweeds:** Japanese, Bohemian, giant knotweeds: Optimum suppression of invasive knotweeds with WHETSTONE HERBICIDE is obtained when applications are made to plants that are at least 3 to 4 feet tall. Results of field trials conducted in the western U.S. indicate that high volume applications (100 gpa or greater) of this product at 7 fl. oz. (0.11 lb. ae)/A or a spot treatment rate up to 14 fl. oz. (0.22 lb. ae)/A applied in summer will provide good control of invasive knotweeds. In the upper Midwest, mowing in summer followed by fall application of this product (prior to frost) provided the best control. Infestations of invasive knotweed that are mowed should be allowed to regrow to at least 3 feet in height prior to herbicide treatment. Monitoring and follow-up herbicide treatments on regrowth will be necessary to control resprouts and achieve long-term control.
- (12) **Purple loostrife:** For optimum control apply this product at 7 fl. oz. (0.11 lb. ae) per acre plus 1 pt to 1 qt. of Alligare 2,4-D Amine (EPA Reg. No. 81927-38) or 1 to 2 qts. of Alligare Triclopyr 3 (EPA Reg. No. 81927-13). Spot treatments may also be made by applying this product at 14 fl. oz. (0.22 lb. ae) (see Spot treatment section of the label) with or without the addition of Alligare 2,4-D Amine (EPA Reg. No. 81927-38) or Alligare Triclopyr 3 (EPA Reg. No. 81927-13).

- (13) **Fiddleneck:** For optimum control apply this product at 4 to 7 fl. oz. (0.06 to 0.11 lb. ae) per acre when the plants are young and before flowering. Use higher rates if the plants are older and larger. In California optimal application timing is November through March.

For Control or Suppression of Medusahead Rye

WHETSTONE HERBICIDE applied broadcast at 7 to 14 fl. oz. (0.11 to 0.22 lb. ae)/A can suppress or control many winter annual grasses including medusahead rye (*Taeniatherum caput-medusae*) and downy brome (*Bromus tectorum*, also called cheatgrass). The key to optimum results is the timing of application. Applications should be made in late summer prior to rains and seed germination in order to provide the best possibility of suppression or control. In general, annual grass control or suppression will be poor if any of the winter annual grass seeds have germinated prior to application even if they have not yet emerged through the soil surface. Tank mixes with Glyphosate 4 Plus (EPA Reg. No. 81927-9) at 12 fl oz/A, where a non-selective herbicide can be used or where desired grasses are dormant and will not be harmed and will aid in controlling any winter annual grasses that germinated prior to application. Spot treatment restrictions (see spot treatment section) apply for rates above 7 fl. oz. (0.11 lb. ae)/A for broadcast applications.

Control of Terrestrial Weeds near and up to the Water's Edge

This product can be used to treat terrestrial weeds that extend up to the water's edge. **Do not apply directly to water.** This product must not be used to treat vegetation standing in the water. When controlling terrestrial weed species near and up to the water's edge, take precautions to minimize incidental overspray to the adjacent water. Consult local public water control authorities before applying this product near public waters. Permits may be required to treat such areas. Apply the specified rate, listed in Table 2 of this product as a coarse low-pressure spray as ground broadcast or spot applications. Do not apply aerially for control of weeds growing at or near the water's edge. Spray volume should be sufficient to uniformly cover foliage. Increase the spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. It is also permissible to treat target weeds within dry non-irrigation ditches and seasonally dry transitional areas between upland and lowland sites (such as flood plains, deltas, marshes, prairie potholes or vernal pools), but only at times when those sites are dry and are forecasted or managed by water control systems to remain dry for at least 2 weeks following application.

Use Rate Restrictions:

Do not broadcast apply more than 7 fl. oz. (0.11 lb. ae) per acre of this product per year.

The total amount of this product applied broadcast, as a re-treatment, and/or spot treatment cannot exceed 7 fl. oz. (0.11 lb. ae) per acre per year. Spot treatments may be applied at an equivalent broadcast rate of up to 14 fl. oz. of this product (0.22 lb. ae) per acre per year; however, not more than 50% of an acre may be treated at that rate. Do not apply more than a total of 7 fl. oz. of this product (0.11 lb. ae) per acre per year as a result of broadcast, spot or repeat applications.

Woody Plant Control

This product may be applied to control woody plants by any application method listed on the label on any site listed.

WHETSTONE HERBICIDE may be applied alone or in tank-mix combinations with labeled rates of other herbicides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated and (2) mixing is not prohibited by the label of the registered tank mixed products. Use as directed in the Directions of Use section of the tank-mix partner. Follow Mixing Instructions.

Add this product to tank mixes for improved brush control on species such as alder, aspen, blackberry, boxelder, cherry, coyote brush, conifers, cottonwood, elm, maple, poplar, oak, brooms (Scotch, Spanish,

French, Portuguese), gorse, hackberry, Russian and Autumn olive, salt-cedar.

Low or High Volume Foliar Applications:

For broad spectrum brush control using a foliar application, this product may be added to tank mixes with Glyphosate 4 Plus (EPA Reg. No. 81927-9), Alligare Imazapyr 4 SL (EPA Reg. No. 81927-24), Alligare 2,4-D Amine (EPA Reg. No. 81927-38), Alligare Triclopyr 4 (EPA Reg. No. 81927-11), Boulder 6.3 (EPA Reg. No. 81927-54), Alligare Triclopyr 3 (EPA Reg. No. 81927-13), Alligare Triumph 22K Herbicide (EPA Reg. No. 81927-18) or other products labeled for use on the intended site.

Low Volume Basal Bark Applications:

To control susceptible woody plants with stems less than 6 inches in basal diameter, apply herbicide mix (see below for rates) with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground in a manner that thoroughly wets the lower stems but not to the point of runoff. The use of a Spraying Systems Y2 nozzle or similar nozzle is recommended, which will narrow the spray pattern to target individual stems. Herbicide concentration should vary with tree diameter, bark thickness, volume used per acre, and susceptibility of species treated. Apply anytime, including the winter months, except when snow or water prevent spraying to the ground line or when stem surfaces are saturated with water.

This product may be used as a low volume basal treatment alone, for sensitive woody species in the Fabaceae family (legumes), or in combination with other products such as Alligare Triclopyr 4 (EPA Reg. No. 81927-11) or Boulder 6.3 (EPA Reg. No. 81927-54) for broader control of other sensitive woody species. Do not exceed the maximum use rate per acre for the site.

Mix this product at 0.5 to 5% v/v alone, or with Alligare Triclopyr 4 (EPA Reg. No. 81927-11) or Boulder 6.3 (EPA Reg. No. 81927-54) in a commercially available basal diluent (or other oils or basal diluents as recommended by the manufacturer); the basal oil should be compatible with a water soluble herbicide such as WHETSTONE HERBICIDE. See table 3 to calculate the amount of this product that can be applied per acre at the various volumes and rates. Make a stable tank mixture for basal bark application by first combining each product with a compatibility agent prior to final mixing in the desired ratio. If using a tank mix, mix the oil-based products such as Alligare Triclopyr 4 (EPA Reg. No. 81927-11) thoroughly with basal oil and add any other oil-based products before adding the water-based products. If the mixture stands for more than 30 minutes, reapplication may be required.

Oil and water-based mixtures can separate over time. Long-term storage is not recommended without vigorous agitation prior to use or without a recommended compatibility agent.

Use caution when treating areas adjacent to susceptible and desirable species to avoid root uptake and possible injury when using this product or other soil active herbicides.


Low Volume Stem Bark Band Treatment

To control susceptible woody plants (see Table 2) with stems less than 6 inches in basal diameter, mix 0.5 to 5 gallons of this product in enough oil to make 100 gallons of spray mixture. Apply with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Apply the spray in a 6- to 10- inch wide band that completely encircles the stem. Spray in a manner that completely wets the bark, but not to the point of runoff. The treatment band may be positioned at any height up to the first major branch. For best results apply the band as low as possible. Spray mixture concentration should vary with size and susceptibility of species to be treated. Applications may be made anytime, including winter months.

Table 3:

| % of WHETSTONE HERBICIDE in Basal Mix | Fluid ounces of WHETSTONE HERBICIDE by GPA (gallons per acre) | | | | | | |
|---------------------------------------|---|------|------|------|------|------|------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1.0 | 1.3 | 2.6 | 3.8 | 5.1 | 6.4 | 7.7 | 9.0 |
| 1.5 | 1.9 | 3.8 | 5.8 | 7.7 | 9.6 | 11.5 | 13.4 |
| 2.0 | 2.6 | 5.1 | 7.7 | 10.2 | 12.8 | | |
| 2.5 | 3.2 | 6.4 | 9.6 | 12.8 | | | |
| 3.0 | 3.8 | 7.7 | 11.5 | | | | |
| 3.5 | 4.5 | 9.0 | 13.4 | | | | |
| 4.0 | 5.1 | 10.2 | | | | | |
| 5.0 | 6.4 | 12.8 | | | | | |

 within spot treatment labeled rate

 in excess of spot treatment labeled rate

NOTE: Avoid treating high density of stems adjacent to desirable trees with roots in the treatment zone. See table 4 for guidance on estimated volume per acre by treated stem density. Trees adjacent to or in a treated area can occasionally be affected by root uptake of this product. Applications of this product within the root zone of desirable trees should not be made unless injury can be tolerated. Severe injury or plant death can occur if used near roses, or leguminous trees such as locusts, redbud, mimosa, and caragana.

Table 4:

| Estimated gallons of spray solution per acre for basal bark applications on various stem densities per acre | | |
|---|-------------------------|---|
| Number of Stems/Acre | Volume Range (gal/acre) | Target Spacing (ft between brush/trees) |
| 250 | 1.0 - 1.7 | 8.4 |
| 500 | 2.0 - 3.3 | 5.9 |
| 750 | 3.0 - 5.0 | 4.9 |
| 1000 | 4.0 - 6.6 | 4.2 |
| 1250 | 5.0 - 8.3 | 3.8 |
| 1500 | 5.9 - 9.9 | 3.4 |

Cut surface

Apply this product in the cut surface applications listed below for control of susceptible tree species such as legumes like albizia, mimosa, locust, etc. Mixtures of this product and Alligare Triclopyr 3 (EPA Reg. No. 81927-13) or Alligare Triclopyr 4 (EPA Reg. No. 81927-11) may be effective on species other than legumes such as elm, maple, oak and conifers.

Cut surface applications may be used successfully at any season except during periods of heavy sap flow of certain species - for example, maples in the spring.

Cut-Stump Treatment

Apply this product as a 10% dilution v/v in water, by spraying or painting all the exposed cambium layer on the freshly cut surface. The cambium area next to the bark is the most vital area to wet.

With Tree Injector Method

Apply by injecting 1 milliliter of 10% v/v WHETSTONE HERBICIDE in water through the bark at intervals of 3 to 4 inches between centers of the injector wound. The injections should completely surround the tree at any convenient height. Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is injected directly into plants.

With Hack and Squirt Method

Make cuts around the tree trunk at a convenient height with a hatchet or similar equipment so that the cuts overlap slightly and make a continuous circle around the trunk. Spray 1 milliliter of 10% v/v WHETSTONE

HERBICIDE in water into the pocket created between the bark and the inner stem/trunk by each cut.

With Frill or Girdle Method

Make a single girdle through the bark completely around the tree at a convenient height. The frill should allow for the herbicide to remain next to the inner stem and absorb into the plant. Wet the cut surface with 10% v/v WHETSTONE HERBICIDE in water.

For use in Hawaii only:

Incision Point Application (IPA) also known as Tree Injection or Hack and Squirt

For control of susceptible tree species such as albizia, and other legumes and susceptible tree species, make cuts around the tree trunk at a convenient height with a machete, hatchet or similar equipment so that the cuts are about 6 inches apart between centers. Inject ½ to 1 milliliter of undiluted WHETSTONE HERBICIDE into the pocket created between the bark and the inner stem/trunk by each cut as soon as possible after cutting. The cambium area next to the bark is the most vital area to wet.

Preemergent Weed Control

Typically this product is used as a post emergent herbicide but it has pre-emergent activity on susceptible weeds. Use WHETSTONE HERBICIDE as a preemergence spray prior to weed seed germination. Control will depend upon species susceptibility, application timing, and environmental conditions, such as precipitation, following application. When applied at rates lower than 7 fl. oz. (0.11 lb. ae) per acre, this product can provide short-term control of some susceptible weeds but when applied at 7 fl. oz. (0.11 lb. ae) (broadcast) or 14 fl. oz. (0.22 lb. ae) (spot treatment), weed control is extended.

Best results for use as a preemergent application for total vegetation control are obtained if this product at 7 fl. oz. (0.11 lb. ae) per acre is tank mixed with other herbicides to broaden the weed spectrum and to control grasses. If grasses and broadleaf weeds tolerant to this product are present at the time of application or will germinate on the site, then tank mixtures with other herbicides, such as Glyphosate 4 Plus (EPA Reg. No. 81927-9), Alligare SFM 75 (EPA Reg. No. 81927-26), Esplanade (EPA Reg. No. 432-1512), PROMENADE Herbicide (EPA Reg. No. 81927-67), Alligare Diuron 80DF (EPA Reg. No. 81927-12) or other herbicides labeled for total vegetation control applications.

SPOT TREATMENTS FOR AREAS SUCH AS SUBJECT POLES, SUBSTATIONS, AND OTHER SMALL AREAS

Spot treatments may be applied at an equivalent broadcast rate of up to 14 fl. oz. (0.22 lb. ae) per acre per year to small spots for clearing around utility subject poles to help prevent fire damage, on small substations and other spot areas. To prevent misapplication, spot treatments should be applied with a calibrated sprayer.

STORAGE AND DISPOSAL

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

Pesticide Storage: If this product is exposed to subfreezing temperatures, the active ingredient may crystallize and settle out of solution. Under these conditions the product should be warmed to at least 40°F and agitated well to dissolve any crystallized active ingredient prior to use.

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

Container Handling:

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

To the extent consistent with applicable law, upon purchase or use of this product, purchaser and user agree to the following terms:

Warranty: Alligare, LLC (the Company) warrants that this product conforms to the chemical description on the label in all material respects and is reasonably fit for the purpose referred to in the directions for use, subject to the exceptions noted below, which are beyond the Company's control. To the extent consistent with applicable law, the Company makes no other representation or warranty, express or implied, concerning the product, including no implied warranty of merchantability or fitness for a particular purpose. To the extent consistent with applicable law, no such warranty shall be implied by law, and no agent or representative is authorized to make any such warranty on the Company's behalf.

Terms of Sale: The Company's directions for use of this product must be followed carefully. 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, and the manner of use or application (including failure to adhere to label directions), all of which are beyond the Company's control. To the extent consistent with applicable law, all such risks are assumed by the user.

Limitation of Liability: To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damages, and in no event shall damages or any other recovery of any kind exceed the price of the product which caused the alleged loss, damage, injury or other claim. To the extent consistent with applicable law, under no circumstances shall the Company be liable for any special, indirect, incidental or consequential damages of any kind, including loss of profits or income. Some states do not allow the exclusion or limitation of incidental or consequential damages.

The Company and the seller offer this product, and the purchaser and user accept this product, subject to the foregoing warranty, terms of sale and limitation of liability, which may be varied or modified only by an agreement in writing signed on behalf of the Company by an authorized representative.

WHETSTONE™ is a trademark of Alligare, LLC

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