

MATERIAL SAFETY DATA SHEET

PRODUCT: EP Base Oil Plus
DATE OF REVISION: 5-25-2007
ISSUE DATE: 12-15-06

MANUFACTURER: ECO-PAK LLC
SELMA, IN

IN CASE OF EMERGENCY CALL INFOTRAC: 1-800-535-5053

1. PRODUCT IDENTIFICATION

TRADEMARK: EP Base Oil Plus
SYNONYMS: Petroleum Distillate & Emulsifier
CHEMICAL FAMILY: Petroleum Hydrocarbon Oil

2. HAZARDOUS INGREDIENTS

OSHA REGULATED COMPONENTS

CHEMICAL INGREDIENTS	CASE NO.	WT%	EXPOSURE LIMITS
Light Paraffin Oil Distillate and Emulsifiers	Mixture	100	No Specific Limit

Maximum of 1 ppm Ethylene Oxide (EO) (75-21-8) may be present in the product.
The OSHA PEL and SCGIH TLV for EO is 1 ppm.

3. EFFECTS OF OVEREXPOSURE:

Harmful or fatal if swallowed. Pulmonary aspiration hazard if swallowed and/or vomiting occurs – can enter lungs and cause damage. Excessive exposure may cause irritation to eyes, nose, and throat. No acute effects expected to be twice exposure limit. Contact with skin is practically non-toxic if absorbed may result in mild irritation with prolonged or repeated contact.

4. EMERGENCY FIRST AID

Call a poison control center or doctor immediately for treatment advice.

IF SWALLOWED:

Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to and unconscious person

IF ON SKIN OR CLOTHING:

Take off contaminated clothing Rinse skin immediately with plenty of water for 15-20 minutes.

IF INHALED:

Move person to fresh air. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth to mouth if possible.

IF IN EYES:

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses if present, after the first 5 minutes, then continue rinsing eye. Have the product container with you when calling a poison control center or doctor, or going for treatment.

5. REACTIVITY DATA

STABILITY:	Stable
CONDITIONS TO AVOID:	Excessive heat
POLYMERIZATION:	Will Not Occur
CONDITIONS TO AVOID:	None known
INCOMPATIBLE MATERIALS:	Strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS:	Combustion may produce carbon monoxide and asphyxiates.

6. PHYSICAL PROPERTIES

APPEARANCE:	clear to light amber, may be dyed blue
ODOR:	Little Odor
BOILING POINT:	>200 degrees Fahrenheit
MELTING POINT:	Not Available
VAPOR PRESSURE:	Not Available
SPECIFIC GRAVITY:	0,899
VAPOR DENSITY:	Not Available
% VOLATILE (BY VOL):	NIL
OCTANOL/H ₂ O PARTITION COEF:	Not Applicable
pH:	Not Available
SATURATION IN AIR (BY VOL):	Not Applicable
EVAPORATION RATE:	(Ethyl Ether=1) >1

7. NFPA HAZARD RATING (National Fire Protection Association)

Fire: Slight: No hazard beyond that of ordinary combustible material.

8. FIRE AND EXPLOSION HAZARD INFORMATION

FLASHPOINT:	> 200 degrees Fahrenheit
SLAMMABLE LIMITS (% BY VOL):	Not Established
AUTOIGNITION TEMP:	Not Established
DECOMPOSITION TEMP:	Not Established
FIRE FIGHTING:	Wear self- contained breathing apparatus when fire fighting in confined space.
EXTINGUISHING MEDIA:	Carbon dioxide, dry chemical and chemical foam or water fog.
HAZARD:	Can be made to burn (Flash point greater than 200 degrees Fahrenheit)

9. SPECIAL PRECAUTIONS

HANDLING AND STORAGE/OTHER:

Maintain good housekeeping practices and clean up spills promptly. NFPA Class IIIB storage. Never siphon by mouth,. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

10. SPECIAL PROTECTION INFORMATION

Engineering controls are not usually necessary, if good hygiene practices are strictly followed. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. Wear impervious gloves and protective gear if prolonged contact is unavoidable. Launder soiled clothes. Respiratory protection is not normally necessary. However, if product is heated or misted, use MIOSH certified respiratory protection.

11. SPILL OR LEAK PROCEDURES

SPILL OR LEAK: Contain spill, cover with inert absorbent and transfer to waste disposal container. Aquatic toxicity: Not determined.

WASTE DISPOSAL: Disposal must be made in accordance with applicable governmental regulations. Do not flush to drain/storm sewer.

12. REGULATORY INFORMATION

COMPOUNDS WHICH REQUIRE REPORTING UNDER SARA TITLE III

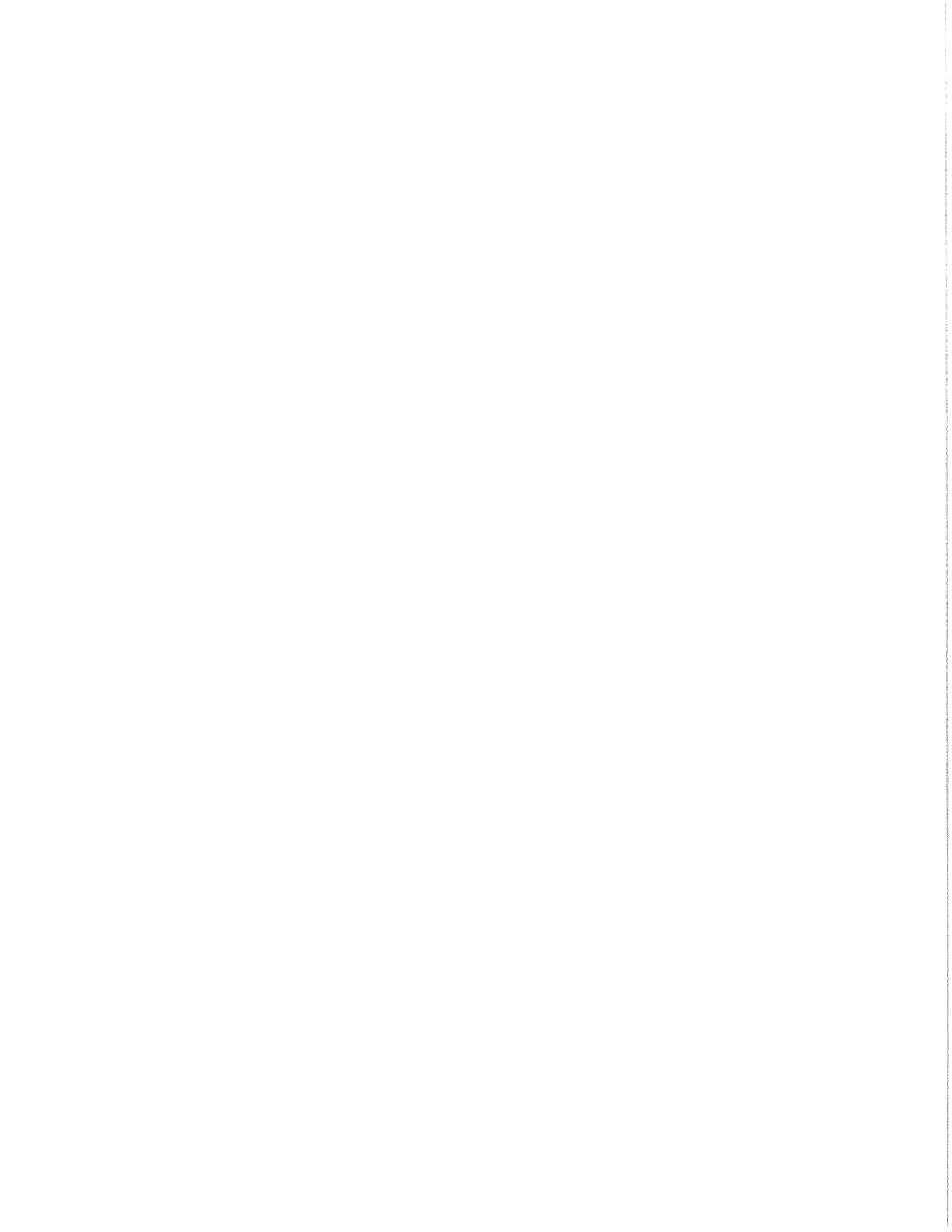
Sara Regulated Compounds	Section	CAS NO.	Percent
Residual Ethylene Oxide	302/304	75-21-8	0.001
Glycol Ethers	311	75-21-8	>0.1

California Prop. 65: The following detectable components of this product are substances, or belong to classes of substances, known to the state of California to cause cancer and/or reproductive toxicity.

Residual Ethylene Oxide	302/304	75-21-8	0.001
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The recommendation for safe handling and protection procedures is believed to be generally suitable for the standard used of this compound. However, each user should identify his intended uses of this material and determine whether they are appropriate, all data included in this document is released as typical values and should not be utilized to determine the suitability of this material for a particular use or purpose. No warranty, either expressed or implied, is hereby made, nor do we give permission, inducement, or recommendations to practice any patented invention without a license. All data is offered for consideration, investigation and verification purposes only.

ECO-PAK LLC
SELMA, INDIANA 47383





GROUP 4 HERBICIDE

TRICLOPYR 4

A Herbicide for Control of Woody Plants, Annuals and Perennial Broadleaf Weeds in Forests, Grass Pastures, Rangeland, CRP acres, Rights-of-Way, and in Non-Crop Areas and Ornamental Turf, Industrial Sites and Non-Irrigation Ditch Banks

ACTIVE INGREDIENT:	% BY WT.
*Triclopyr BEE: (3,5,6 Trichloro-2-Pyridinyl) oxyacetic acid, butoxyethyl ester	61.6%
OTHER INGREDIENTS:	<u>38.4%</u>
TOTAL:	100.0%

Contains petroleum distillates

*Contains 4 pounds of triclopyr acid equivalent per gallon (44.3%)

EPA Reg. No. 81927-11 EPA Est. No. 42750-MO-001^{ALB}
75640-COL-001^{PC}; 53883-TX-002^{CSI}
7401-TX-001^{TX}; 81927-AL-001^{PM}

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

KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCION

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.)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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

Net Contents: 2.5 Gallons (9.46 liters)

FIRST AID	
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person. • Do not give liquid to the person.
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.
If on skin or clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
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.	
NOTE TO PHYSICIAN	
May pose an aspiration hazard. Contains petroleum distillates.	

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

EPA 20210429



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PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) – in general, agricultural-plant uses are covered – must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, nitrile rubber, neoprene rubber, or viton
- Shoes plus socks

Applicators and other handlers who handle this pesticide for any use not covered by the Worker Protection Standard (40 CFR Part 170) – in general, only agricultural-plant uses are covered by the WPS – 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 are given, 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.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters 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.

Physical or Chemical Hazards

Combustible: Do not use or store near heat or open flame. Do not cut or weld container.

DIRECTIONS FOR USE

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

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

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 (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as barrier laminate, nitrile rubber, neoprene rubber, or Viton
- Protective eyewear
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow others to enter the treated area until sprays have dried, unless applicator and other handler PPE is worn.

Product Information

Alligare Triclopyr 4 is a herbicide used to control unwanted woody plants and annual and perennial broadleaf weeds

- in forests
- on permanent grass pastures, rangelands, and conservation reserve program (CRP) acres (including non-irrigation ditch banks and fence rows within these areas)
- on non-crop areas including industrial manufacturing and storage sites
- on rights-of-way such as electrical power lines, communication lines, pipelines, roadsides, and railroads
- on fence rows
- on non-irrigation ditch banks
- around farm buildings
- on perennial bluegrass, perennial ryegrass, and tall fescue ornamental turf (including sod farms, commercial turf, and golf courses)

Alligare Triclopyr 4 use on these sites may include application to grazed areas as well as for the establishment and maintenance of wildlife openings.

Use Precautions

- Local conditions may affect the use of herbicides. Consult your local specialist for advice in selecting treatments from this label to best fit local conditions.
- Avoid direct application to Christmas trees as conifer injury may result. When treating unwanted vegetation in Christmas tree plantations, use sprays directed away from conifers.
- While Alligare Triclopyr 4 is formulated as a low volatile ester, the combination of spray contact with impervious surfaces (such as roads and rocks) and increasing ambient air temperatures may result in an increase in the volatility potential for this herbicide, increasing a risk for off-target injury to sensitive crops such as grapes and tomatoes.
- Use of this product in certain portions of California, Oregon, and

Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et. al. v. EP, C01-0132C, (W.D. WA). For further information, please refer to <http://www.epa.gov/esp/wtc>.

Use Restrictions

- **Agricultural Use Requirements for Forestry Uses:** For use of this product on forestry sites, follow PPE and Reentry restrictions in the Agricultural Use Requirements section of this label
- **Use Requirements for Non-Cropland Areas:** No worker protection Standard worker entry restrictions or worker notification requirements apply when this product is applied to non-cropland.
- Alligare Triclopyr 4 may injure certain turfgrass species. Do not apply to bahiagrass, bentgrass, bermudagrass, centipedegrass, St. Augustine grass, or zoysiagrass, unless turf injury can be tolerated.
- Do not apply Alligare Triclopyr 4 to exposed roots of shallow rooted trees and shrubs.
- Do not apply Alligare Triclopyr 4 to golf course greens.
- Do not apply more than 2 qts. of Alligare Triclopyr 4 per acre in a single application when spot treating.
- On use sites other than grazable areas and forestry sites, do not apply more than 8 lbs. ae per acre per year of triclopyr (8 qts./A/yr Alligare Triclopyr 4).
- On use sites that may be grazed, including rights-of-way, pasture, fence rows, and rangeland, do not apply more than 2 lbs. ae per acre per year of triclopyr (2 qts./A/yr of Alligare Triclopyr 4).
- On forestry use sites, do not apply more than 6 lbs. ae per acre per year of triclopyr (6 qts./A/yr of Alligare Triclopyr 4).
- **In Arizona:** The state of Arizona has not approved Alligare Triclopyr 4 for use on plants grown for commercial production; specifically on designated grazing areas or use on sod farms.
- Do not apply this product through any type of irrigation system.
- Do not apply to ditches used to transport irrigation water. Do not apply where runoff or irrigation water may flow onto agricultural land as injury to crops may result.
- It is permissible to treat non-irrigation ditch banks, seasonably dry wetlands, flood plains, deltas, marshes, swamps, bogs and transitional areas between upland and lowland sites. Do not apply to open water such as lakes, reservoirs, rivers, streams, creeks, salt water bays, or estuaries.
- Do not apply this product through mist blowers unless a drift control additive, high viscosity inverting system, or equivalent is used to control spray drift.
- Do not make direct applications or allow spray mists to drift onto cotton, fruit or orchard trees, shrubs, grapes, peanuts, soybeans, tobacco, vegetable crops, flowers, citrus, or other desirable broadleaf plants.
- Many forbs (herbaceous broadleaves) are susceptible to Alligare Triclopyr 4. Unless injury or loss of such plants can be tolerated, do not spray pastures containing desirable broadleaf forbs (especially legumes such as clover). After applications the stand and growth of established grasses is usually improved, especially when rainfall is adequate and grazing is deferred.
- While established grasses are tolerant to this product, newly seeded grasses may be injured until well established (as indicated by vigorous growth, tillering and the development of a secondary root system). Do not reseed treated areas for a minimum of three weeks after treatment.
- Portions of grazed areas that intersect treated non-cropland, rights-of-way and forestry sites may be treated at up to 8 lbs. ae per acre if the area to be treated on the day of application comprises no more than 10% of the total grazable area.

Grazing and Haying Restrictions

Except for lactating dairy animals, there are no grazing restrictions following application of this product.

- **Grazing Lactating Dairy Animals:** Do not allow lactating dairy animals to graze treated areas until the next growing season following application of this product.
- Do not harvest hay for 14 days after application.

Slaughter Restrictions:

Withdraw livestock from grazing treated grass or consumption of treated hay at least 3 days before slaughter. This restriction applies to grazing during the season following treatment or hay harvested during the season following treatment.

APPLICATION DIRECTIONS

RATES

This table assists in determining proper volumes of Alligare Triclopyr 4 in the spray tank to avoid exceeding the maximum use rates listed:

Maximum Application Rates

Spray Volume Per Acre	Alligare Triclopyr 4 Quarts per 100 gallons of spray volume		
	2 quarts/acre	6 quarts/acre	8 quarts/acre
400	Do not use	1.5	2
300	Do not use	2	2.7
200	Do not use	3	4
100	2	6	8
50	4	12	16
20	10	30	40
10	20	60	80

Spray Additives

Surfactants - If a standard agricultural surfactant is used, use at a rate of 1 to 2 quarts per acre.

Drift Control Agents – Agriculturally registered spray thickening drift control agents or high viscosity invert systems may be used with Alligare Triclopyr 4. When using these agents, follow all use directions and precautions on the product label. Do not use a thickening agent with the Microfoil boom, Thru Valve boom, or other systems that cannot accommodate thick sprays.

Mixing Directions

Apply Alligare Triclopyr 4 foliarly by diluting with water or as an oil-water emulsion. NOTE: An oil-water emulsion performs more dependably under a broader range of conditions than a straight water dilution for woody plant control and is recommended for aerial applications.

Oil-Water Emulsions

NOTE: Prior to preparing oil-water emulsion sprays in the mixing tank, conduct a jar test to check spray mix compatibility.

Prepare the oil-water emulsion using diesel fuel, fuel oil, or kerosene plus an emulsifier such as Sponto 712 or Triton X-100.

- **Ground Application:** Add oil at a rate of 5 to 10% of the total to the spray mix (up to a maximum of 1 gallon of oil per acre) and use an agricultural spray emulsifier according to mixing instructions below.
- **Aerial Application:** Add a 1:5 ratio of oil and water (1 part oil to 5 parts water) to the spray mixture (up to a maximum of 1 gallon of oil per acre) according to the mixing instructions below.

Oil Mixture Sprays for Basal Treatment

When preparing an oil mixture, be sure to read and follow the use directions and precautions on the manufacturer's product label. Prepare oil-based spray mixtures using either diesel fuel, No. 1 or No. 2 fuel oil, kerosene or a commercially available basal oil. Substitute other oils or diluents only as recommended by the oil or diluent's manufacturer. Add Alligare Triclopyr 4 to the required amount of oil in the spray tank or mixing tank and mix thoroughly. Reagitate if the mixture stands for over 4 hours.

Water Dilutions

To provide improved wetting of foliage using water dilutions, an agricultural surfactant at the manufacturer's recommended rate may be added to the spray mixture. To help minimize spray drift, a drift control and deposition aid cleared for application to growing crops is recommended.

Tank Mixing

Alligare Triclopyr 4 may be applied in combination with labeled rates of other herbicides provided:

- The tank mix product(s) are labeled for the timing and method of application for the use site to be treated; and,
- Tank mixing is not prohibited by the label of the tank mix product(s).

NOTE: The following compatibility test (jar test) should be conducted prior to mixing ingredients in the spray tank when tank mixing Alligare Triclopyr 4 with other materials:

1. Use a clear glass quart jar with lid and mix the tank mix ingredients in the required order and their relative proportions.
2. Invert the jar containing the mixture several times and observe the mixture for approximately ½ hour.
3. If the mixture balls-up, forms flakes, sludges, jells, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Mixing Order for Tank Mixes: Add one-half of the needed water to the mixing tank and begin agitation. Add the tank mix partners in the order indicated below, allowing time for complete dispersion and mixing after the addition of each product.

1. Water soluble herbicide (if used)
2. Premix of oil, emulsifier, Alligare Triclopyr 4 and other oil-soluble herbicide (if used); see below

Add the remaining water. During the final filling of the tank, a drift control and deposition aid cleared for application to growing crops may be added, as well as an agricultural surfactant if a water dilution rather than an oil-water emulsion spray is used. To ensure spray uniformity, maintain continuous agitation of the spray mixture during mixing, final filling and throughout application.

Premixing: Prepare a premix of oil, emulsifier (if oil-water emulsion), and Alligare Triclopyr 4 plus other oil-soluble herbicides if used (for example 2,4-D ester). **Note:** Do not allow water or mixtures containing water to get into the premix or Alligare Triclopyr 4 since a thick "invert" (water in oil) emulsion may form that will be difficult to break. An emulsion may also be formed if the premix or Alligare Triclopyr 4 is put into the mixing tank prior to the addition of water.

Tank Mixing Precautions:

- Read carefully and follow all applicable use directions, limitations and precautions in the respective product labels.
- Do not exceed specified application rates. If products containing the same active ingredient are tank mixed, do not exceed the maximum allowable active ingredient use rates.
- When using spray equipment where the product formulations will be mixed in undiluted form (such as direct injection), special care should be taken to ensure tank mix compatibility.

Mixing with Liquid Fertilizer for Broadleaf Weed Control

For weed control and fertilization of grass pastures, Alligare Triclopyr 4 may be tank mixed with liquid nitrogen fertilizer and applied foliarly. Use Alligare Triclopyr 4 according to the use directions in this label for grass pastures, and apply at the rates recommended by your supplier or Extension Service Specialist provided that no maximum application rates specified on this label are exceeded. **Note:** Because foliage burn caused by liquid fertilizer may reduce herbicide effectiveness on woody plants, Alligare Triclopyr 4 is not recommended for use with liquid fertilizer on woody plants (brush).

Test for mixing compatibility using the desired procedure and spray mix proportions in clear glass jar before mixing in spray tank. A compatibility aid such as Unite or Complex may be needed in some situations, and in difficult situations premixing Alligare Triclopyr 4 with 1 to 4 parts water may help. **NOTE: Compatibility is best with straight liquid nitrogen fertilizer solutions. Mixing with N-P-K solutions or suspensions may not be satisfactory even with the addition of a compatibility aid.**

Fill the spray tank approximately half full with the liquid fertilizer, then begin agitating and add the herbicide. Complete filling the tank with fertilizer and apply immediately maintaining continuous agitation in the spray tank during application. **Do not store liquid fertilizer spray mixtures.** Because the likelihood of mixing or compatibility problems with liquid fertilizer increases under cold conditions, application during very cold weather (near freezing) is not recommended.

Note: Do not use spray equipment for other applications to land planted (or to be planted) to susceptible crops or desirable plants **unless** it has been determined that all phytotoxic herbicide residue has been removed by thoroughly cleaning the equipment.

APPLICATION EQUIPMENT AND TECHNIQUES

Avoid drift. Very small quantities of spray may seriously injure susceptible plants. Do not spray when wind is blowing toward susceptible desirable vegetation. The applicator may detect the potential for drift by producing smoke at or near the spray site and observing for a temperature inversion or for potential of off-site movement. If the smoke layers or indicates a potential of hazardous spray drift, do not spray.

Broadcast Applications

Alligare Triclopyr 4 may be applied aerially by fixed wing aircraft or helicopter to rangeland, permanent grass pastures, and conservation reserve program acres. For all other use sites listed on this label, Alligare Triclopyr 4 may only be applied aerially by helicopter.

For aerial application to rangeland, permanent grass pastures, and conservation reserve program acres:

Air (Fixed wing aircraft or Helicopter) – For aerial applications to rangeland, permanent grass pastures, and conservation reserve program acres, apply Alligare Triclopyr 4 through a Microfoil or Thru-Valve boom, or use an agriculturally labeled drift control additive. Do not use a thickening agent with the Microfoil or Thru-Valve booms, or other systems that cannot accommodate thick sprays. Keep spray pressures low enough to provide coarse spray droplets and spray only when the wind velocity is low (follow state regulations). Avoid application during air inversions.

Air (Helicopter Only) – When making aerial applications on rights-of-way or other areas near susceptible crops, efforts should be made to minimize drift. Applications should be made with nozzles and pressures which provide adequate plant coverage, but minimize the production of fine spray particles. Drift can be minimized by applying through the Microfoil boom or Thru-Valve boom. Drift control agents or high viscosity invert systems can also be used to minimize drift. Do not use the high viscosity invert system unless it is as effective as the booms listed or as effective as available drift control agents. Use of low pressure nozzles; and operating these nozzles in the lower end of the manufacturer's recommendations is advised. To minimize drift, use a spray boom that is no longer than ¾ the rotor length, spray when wind velocities are low; or by using an approved drift control system.

Note: Reference within this label to equipment produced by or available from other parties is provided without consideration for use by the reader at its discretion and subject to the reader's independent circumstances, evaluation, and expertise. Such reference by Alligare, LLC is not intended as an endorsement of such equipment, shall not constitute a warranty (express or implied) of such equipment, and is not intended to imply that other equipment is not available and equally suitable. Any discussion of

methods of use of such equipment does not imply that the reader should use the equipment other than is advised in directions available from the equipment's manufacturer. The reader is responsible for exercising their own judgment and expertise, or consulting with sources other than Alligare, LLC, in selecting and determining how to use its equipment.

Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

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

1. The distance of the outer most nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backwards parallel with the air stream and never be pointed downwards more than 45 degrees.

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

The applicator should be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory**. [This section is advisory in nature and does not supersede the 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 recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

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

Application Height

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

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the

applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.)

Wind

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

Temperature and Humidity

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

Temperature Inversions

Applications should not occur during a 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 smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

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

Ground – Applications should be made with nozzles and pressures which provide adequate plant coverage, but minimize the production of fine spray particles. Large droplet producing equipment, such as the Radiarc sprayer may aid in reducing off-target drift. Drift control agents or high viscosity invert systems can also be used to minimize drift. Use of low pressure nozzles; and operating these nozzles in the lower end of the manufacturer's specified rates is advised. To minimize drift, keep the spray boom as low as possible, apply in ≥ 20 gallons of spray volume per acre, spray when wind velocities are low; or use an approved drift control agent.

High Volume Leaf-Stem Treatments: Make applications no higher than brush tops with low pressure and coarse spray droplets to minimize spray drift. A drift control agent may be used to reduce spray drift.

Application Directions for Rights-of-Way, Industrial Sites, Non-Crop Areas, Non-Irrigation Ditch Banks, Forests, and Wildlife Openings including Grazed Areas on these Sites

Refer to Tables 1 and 2 of this label for a list of woody plants and broadleaf weeds that are controlled by Alligare Triclopyr 4.

Foliar Applications

Apply Alligare Triclopyr 4 at rates of 1 to 8 quarts per acre for the control of broadleaf weeds and woody plants. Do not exceed the maximum use rate for the use site being treated. Consult the Use Restrictions section of this label for maximum use rates. Apply in enough water to provide uniform and complete coverage of the plants to be controlled. For best results make applications when woody plants and weeds are actively growing. Use higher doses within the range when brush averages 15 feet or more in height or when brush covers $> 60\%$ of the area to be treated.

For hard-to-control species such as ash, black gum, choke cherry, elm, maples (other than vine or big leaf), oaks, pines, or winged elm; during late summer applications when plants are mature; or during drought; use higher rates of Alligare Triclopyr 4 alone or use in combination with Tordon* 101 Mixture or Tordon* or Picloram K. If lower rates are used on hard-to-control species, re-sprouting may occur in the year following treatment.

If easy to control brush species dominate, rates less than those specified may be effective. Consult state or local extension personnel for information.

When making applications of Alligare Triclopyr 4 in a tank mix with 2,4-D low volatile ester herbicide, use higher rates of Alligare Triclopyr 4 within the range for satisfactory brush control.

When tank mixing, refer to the individual product labels for precautionary statements, restrictions, specified rates, approved uses, and a list of weeds and woody plants controlled.

Foliar Applications with Ground Equipment

High Volume Foliar Applications

For control of woody plants, apply Alligare Triclopyr 4 at 1 to 3 quarts per 100 gallons of spray mixture. Coverage should be thorough to wet all leaves, stems, and root collars. See Table in **RATES** section for relationship between mixing rate, spray volume and maximum application rate.

Tank Mixing: 1 to 3 quarts of Alligare Triclopyr 4 may be tank mixed with labeled rates of 2,4-D low volatile ester herbicide, Tordon* or Picloram K, or Tordon* 101 Mixture diluted to make 100 gallons of spray. These applications should be made in 100 to 400 gallons of total spray per acre depending on size and density of woody plants. When tank mixing, refer to the individual product labels for precautionary statements, restrictions, specified rates, approved uses, and a list of weeds and woody plants controlled.

Low Volume Foliar Applications

For control of woody plants, mix up to 20 quarts of Alligare Triclopyr 4 in 10 to 100 gallons of spray solution. Adjust the spray concentration of Alligare Triclopyr 4 and total spray volume per acre to match the size and density of target woody plants and kinds of spray equipment used. With low volume sprays, use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems, and root collars. For best results, a surfactant should be added to all spray mixtures. See the **SPRAY ADDITIVES** section for a rate recommendation.

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. See Table in **RATES** section for relationship between mixing rate, spray volume and maximum application rate.

Tank Mixing: Up to 12 quarts of Alligare Triclopyr 4 may be applied in tank mix combinations with labeled rates of Tordon* or Picloram K, or Tordon* 101 Mixture as a low volume foliar spray. These applications should be made in 10 to 100 gallons of spray solution. When tank mixing, refer to the individual product labels for precautionary statements, restrictions, application rates, approved uses, and a list of weeds and woody plants controlled.

Broadcast Application With Ground Equipment

Use equipment that will assure thorough and uniform coverage at spray volumes applied.

Woody Plant Control

Foliage Treatment: Apply 4 to 8 quarts of Alligare Triclopyr 4 in a minimum of 5 gallons of spray solution per acre. Alligare Triclopyr 4 at 1.5 to 3 quarts per acre may be tank mixed with labeled rates of 2,4-D low volatile ester, Tordon* 101 Mixture, or Tordon* or Picloram K in a minimum of 5 gallons of spray solution per acre. When tank mixing, refer to the individual product labels for precautionary statements, restrictions, application rates, approved uses, and a list of weeds and woody plants controlled.

Broadleaf Weed Control

Apply 1 to 4 quarts of Alligare Triclopyr 4 in a minimum of 5 gallons of spray solution per acre. Apply at any time weeds are actively growing. Alligare Triclopyr 4 at 0.25 to 3 quarts per acre may be tank mixed with labeled rates of 2,4-D amine or low volatile ester; Tordon* or Picloram K; or Tordon* 101 Mixture to improve the spectrum of activity. For thickened (high viscosity) spray mixtures, Alligare Triclopyr 4 can be mixed with diesel oil or other inverting agent. When using an inverting agent, read and follow the use directions and precautions on the product label. When tank mixing, refer to the individual product labels for precautionary statements, restrictions, application rates, approved uses, and a list of weeds and woody plants controlled.

Aerial Application (Helicopter Only) - Aerial sprays should be applied using suitable drift control. See the **SPRAY ADDITIVES** and the **APPLICATION EQUIPMENT AND TECHNIQUES** section.

Foliage Treatment (Utility and Pipeline Rights-of-Way) - Apply 4 to 8 quarts of Alligare Triclopyr 4 alone per acre or tank mix 3 to 4 quarts per acre of Alligare Triclopyr 4 with labeled rates of 2,4-D low volatile ester; Tordon* 101 Mixture; or Tordon* or Picloram K. Do not apply more than 2 quarts per acre of Alligare Triclopyr 4 alone or in tank mix to areas that may be grazed unless the requirements specified in the Use Restrictions section are followed. Apply in total spray volume of 1 to 30 gallons per acre. Use the higher rates and volumes when plants are dense or under drought conditions. When tank mixing, refer to the individual product labels for precautionary statements, restrictions, application rates, approved uses, and a list of weeds and woody plants controlled.

Basal Bark and Dormant Brush Treatments

To control woody plants in rights-of-way, in other non-crop areas, forests, rangeland and permanent grass pastures; use Alligare Triclopyr 4 in oil or oil-water mixtures prepared and applied as described in the "Mixing Directions - Oil Mixture Sprays for Basal Treatment" section of this label. Do not graze treated areas following use of oil or oil-water mixtures. For non-foliar applications on rangeland and permanent grass pastures, apply no more than 2 quarts of Alligare Triclopyr 4 (2 lb. ae of triclopyr) per acre per year.

Oil Mixture Sprays - Add Alligare Triclopyr 4 to the required amount of oil in the spray tank or mixing tank and mix thoroughly. If the mixture is allowed to stand for more than 4 hours, agitation is required.

Oil-Water Mixture Sprays - Prepare a premix of Alligare Triclopyr 4, oil, and surfactant in a separate container. Do not allow any water or mixtures containing water to get into the Alligare Triclopyr 4 or the premix. Mix in spray tank as follows:

1. Fill spray tank ½ full with water.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add premix
4. Continue moderate agitation.
5. Fill remainder of spray tank.

Note: If the premix is put in the tank without any water, the first water added may form a thick "invert" (water in oil) emulsion which will be hard to break.