

# MARENGO™

GROUP 29 HERBICIDE

## Herbicide

Pre-emergent Herbicide for the Control of Annual Grasses,  
Annual Sedges, and Broadleaf Weeds in Production Ornamentals, Conifers,  
Christmas Trees, and Ornamental Production Sites and Hardscapes  
**DO NOT USE FOR THE MANUFACTURING OF FERTILIZER**

**ACTIVE INGREDIENT:**

Indaziflam ..... 7.4%

**OTHER INGREDIENTS:** ..... 92.6%

**TOTAL:** ..... 100.0%

Contains 0.622 lbs. active ingredient per gallon

EPA Reg. No. 432-1518-59807

EPA Est. No. 071106-GA-003

### KEEP OUT OF REACH OF CHILDREN

For TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-423-9300

For MEDICAL and PRODUCT USE Information Call 1-800-356-4647

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

Produced for:

OHP, Inc.

PO Box 230

Mainland, PA 19451

(800) 356-4647

Product of Germany

**985645**

Net Contents:

**0.5 Gallon (64 fl. oz. or 1.892 L)**

 Partners  
with  
solutions

<b>FIRST AID</b>	
<b>If swallowed:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything to an unconscious person.</li></ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"><li>• Hold eyes open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</b>	

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear long-sleeved shirt and long pants, and shoes plus socks.

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

## ENGINEERING CONTROLS STATEMENTS

When handlers use closed systems or enclosed cabs 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/PPE immediately if pesticide gets inside. Then wash body thoroughly and put on clean clothing.

## ENVIRONMENTAL HAZARDS

This product is toxic to fish, aquatic invertebrates, and plants. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean watermark. Do not contaminate water when disposing of equipment rinsate or washwater. This product may enter water through spray drift or runoff. Follow directions for use to avoid spray drift and runoff. A level well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential for getting into water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

This product may enter water through drift of spray in wind. Follow precautions for use to avoid wind spray drift.

**Surface Water Advisory:** This pesticide may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application.

**Ground Water Advisory:** This pesticide has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

## **DIRECTIONS FOR USE**

**It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.  
Read entire label before using this product.**

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls, waterproof gloves and shoes plus socks.

### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of the treated areas until sprays have dried.

## PRODUCT INFORMATION

**MARENGO** is a selective, pre-emergent alkylazine herbicide. **MARENGO** provides extended residual control of many annual grasses including crabgrass, goosegrass, and annual bluegrass, as well as annual sedges, and broadleaf weeds in production nursery including in-ground and pot-in-pot container grown ornamentals, conifers and Christmas trees, non-bearing fruit and nut trees in nurseries, ornamental production facilities (such as shade-houses, hoop-houses, and lath-houses) and hardscapes. **MARENGO** also demonstrates limited early post-emergent activity against some weeds, including annual bluegrass, crabgrass and oxalis.

**MARENGO** controls weeds by reducing the emergence of seedlings through inhibition of cellulose biosynthesis (CB Inhibitor). Necrosis or chlorosis may be observed if the herbicide is applied to herbaceous tissue such as leaves and green stems of susceptible plants including sensitive ornamentals. **MARENGO** does not control plants emerging from tubers, rhizomes, bulbs, corms, existing rootstocks, and woody vegetation. **MARENGO** suppresses the development of some additional hard-to-control weeds.

**MARENGO** needs to be activated prior to weed germination for most effective control. For maximum activity against germinating weeds, **MARENGO** requires rainfall or irrigation prior to weed germination.

**MARENGO** is a highly active herbicide that provides effective weed control when applied to the soil around many field grown woody ornamentals. **MARENGO** may damage sensitive plants, if the product is allowed to remain in contact with foliage. Carefully apply **MARENGO** in strict accordance to the label. Be sure to follow all label restrictions.

## PRODUCT USE RESTRICTIONS

- Do not exceed the maximum single application rates specified under each use.
- Do not exceed 18.5 fl. oz. per acre of **MARENGO** for all applications within a 12 month period.
- Do not contaminate water intended for irrigation and domestic use.
- Do not apply within 25 feet of ponds, lakes, rivers, streams, wetlands, and habitat containing aquatic and semi-aquatic plants when **MARENGO** is used on production nurseries, and non-crop areas (excluding lawns).

- Do not apply **MARENGO** through an irrigation or chemigation system.
- Do not apply **MARENGO** by air.
- Follow use precautions and restrictions on this label and for all tank-mix partners, if mixing **MARENGO** with other pesticides.
- **MARENGO** is not for sale, distribution, or use in Nassau County or Suffolk County in New York State.

Not all products are registered in all states; please verify state registration of these products in your state before selling, distributing, or using.

## DEACTIVATING MARENGO

Activated charcoal has been shown to deactivate **MARENGO** if applied within several days of application. Application of activated charcoal within 2 weeks of an application of **MARENGO** will not reverse phytotoxic symptoms immediately, but it will aid in recovery over time. Follow directions for the amount of charcoal to apply on the label of the activated charcoal.

## SPRAY DRIFT MANAGEMENT

Spray equipment and weather affect spray drift. Consider all factors when making application decisions. Where states have more stringent regulations, they must be observed. Avoiding spray drift is the responsibility of the applicator or grower. To reduce the potential for drift, the application equipment must be set to apply medium to large droplets (i.e., ASAE Standard 572) with corresponding spray pressure. Use high flow rate nozzles to apply the highest practical spray volume. With most nozzle types, narrower spray angles produce larger droplets. Follow the nozzle manufacturer's directions on pressure, orientation, spray volume, etc., in order to minimize drift and optimize coverage and control.

### Wind

Avoid making applications when spray particles may be carried by air currents to areas where sensitive crops and plants are growing. Do not spray near sensitive plants if wind is gusty, below 2 mph, or in excess of 10 mph and moving in the direction of adjacent areas of sensitive crops or plants. Do not apply during temperature inversions. Always make applications when there is some air movement to determine the direction and distance of possible spray drift.

Local terrain may influence wind patterns; the applicator should be familiar with local conditions and understand how they may impact spray drift. Boom or nozzle shielding can reduce the effects of wind or air currents on drift. Verify that the shields do not interfere with uniform deposition of product prior to application.

#### **Temperature Inversion**

A surface temperature inversion (i.e., increasing temperature with increasing altitude) greatly increases the potential for drift. Avoid application when conditions are favorable to inversion. Presence of ground fog is a good indicator of a surface temperature inversion.

#### **Sensitive Areas**

Sensitive areas to **MARENGO** are defined as bodies of water (ponds, lakes, rivers, and streams), wetlands, habitats for endangered species, and non-labeled agricultural crop areas. Applicators must take all precautions necessary to keep spray drift from reaching sensitive areas.

#### **Spray Drift Management (Ornamentals)**

Apply **MARENGO** to dormant (prior to bud break) or actively growing plants. In either case, the spray must be directed at the base of the plant or away from the plant. Do not allow **MARENGO** to come in contact with the foliage, as some leaf malformations or discoloration may occur. Minimize contact with above ground stems.

#### **Spray Drift Management (Conifers/Christmas Trees)**

For Christmas trees and conifers, direct the spray to the base of the trees with a band or with a broadcast application. Do not allow **MARENGO** to come into contact with the foliage.

### **APPLICATION INFORMATION**

Apply **MARENGO** with a properly calibrated sprayer according to the manufacturer's directions and check periodically to be certain that the equipment is working properly prior to each use. Uniform application is essential for satisfactory weed control. Avoid skips for the best weed control.

#### **Application Volume**

Apply **MARENGO** in a minimum of 10 gallons of water per acre (1 quart of water per 1,000 sq. ft.) and ensure adequate coverage for optimum weed control.

## IRRIGATION AND WATERING AFTER APPLICATION

To activate **MARENGO** for maximum herbicidal benefit, irrigate within 2 days after application to move the herbicide into the soil. With dry soil, use a minimum of 0.25 inches of irrigation water. With soil at or greater than field capacity, the amount of irrigation water should be reduced. In either case, do not create conditions that cause visible run-off of irrigation water. Adequate rainfall following an application will negate the need for irrigation.

## MIXING AND COMPATIBILITY

### Mixing Instructions

**MARENGO** should be added to the tank and agitated, prior to introduction of another pesticide. Mix the amount of **MARENGO** needed for immediate application needs. Settling can occur if the spray mixture is allowed to sit over an extended period of time. Re-agitate the spray solution before application.

### Compatibility Testing With Other Pesticides

**MARENGO** is generally compatible with many pesticides and liquid fertilizers. A compatibility test should be conducted with any potential tank-mix partner with **MARENGO**. Using a clear container, conduct the test as described below:

1. Fill the container three-quarters full with water.
2. Add the products to be tank-mixed in the following order: (a) wettable powders (b) dry flowable, (c) aqueous suspensions, (d) **MARENGO\***, (e) liquids, (f) solutions and emulsifiable liquid concentrates, (g) micronutrients and liquid fertilizers.
3. Shake or stir after each addition to mix thoroughly.
4. After adding all ingredients, let the mixture stand for 15 minutes and look for separation, large flakes, precipitates, gels, and heavy oily film or other signs of incompatibility.
5. If the compatibility test shows signs of incompatibility, do not tank-mix the product tested with **MARENGO**.

**\*Note that a labeled spray rate for MARENGO should be used in any compatibility test. Dilute from a concentrated suspension, or sample from a properly diluted spray solution.**



## SPRAYER CLEANUP PROCEDURE

Spray equipment used to apply **MARENGO** must be cleaned prior to use on sensitive ornamentals, or injury may result. Before and after using **MARENGO**, triple rinse all mixing and spray equipment, including tanks, pumps, lines, filters, screens, and nozzles with a good quality tank cleaner on an approved rinse pad. Proper PPE must be worn while cleaning. Follow the directions below.

For each rinse cycle, complete the following:

- Completely drain the spray and mixing tanks.
- Rinse the spray tank inside and outside including all lines and screens. A rotating cleaning nozzle may be beneficial to dislodge any product from the sides of the tank.
- Fill the tank with water and cleaner.
- Circulate solution to ensure that the pumps, valves, and all lines are flushed.
- Remove and clean all filters, screens, and nozzles.
- Drain all cleaning solution and then rinse once more with clean water.
- Visually inspect the filters, screens, and tank walls to ensure that no product remains.
- Dispose of rinsate in an approved way.

## RESISTANCE MANAGEMENT

**MARENGO** controls weeds by inhibiting cellulose biosynthesis. Cellulose is a component in the formation plant cell walls. **MARENGO** is classified as a Group 29 herbicide. No known resistance to **MARENGO** exists, and there are no known instances of cross-resistance between **MARENGO** and other classes of herbicides or other modes of action. Performance of **MARENGO** is not affected by the presence of biotypes resistant to glyphosate, triazines, ALS inhibitors, mitotic inhibitors, growth regulators, or herbicides with other modes of action. Prolonged use of any herbicide with the same mode of action may lead to selection of resistant weed populations and a reduction in efficacy. Rotation of herbicides with an alternate mode of action can help prevent the development and spread of resistant weed populations. If resistance to **MARENGO** is suspected, use a herbicide with an alternate mode of action. The decision to use a particular herbicide should always be based on an IPM program and involve consideration of all cultural practices and other pesticides in use.

<b>Weeds Controlled or Suppressed by MARENGO**</b>	
<b>Broadleaf Weeds</b>	
American black nightshade	<i>Solanum americanum</i>
Bittercress	<i>Cardamine</i> sp.
Black medic*	<i>Medicago lupulina</i>
Buckwheat, wild	<i>Polygonum convolvulus</i>
California burclover	<i>Medicago polymorpha</i>
Canada thistle, common	<i>Cirsium arvense</i>
Chickweed, common	<i>Stellaria media</i>
Chickweed, mouse-ear	<i>Cerastium vulgatum</i>
Clover, white	<i>Trifolium repens</i>
Corn speedwell	<i>Veronica arvensis</i>
Cudweed, linear-leaf/purple	<i>Gnaphalium purpureum</i>
Curly dock	<i>Rumex crispus</i>
Dandelion, cat's ear	<i>Hypochoeris radicata</i>
Dandelion, common	<i>Taraxacum officinale</i>
Eclipta	<i>Eclipta alba</i>
Evening primrose, common	<i>Oenothera biennis</i>
Evening primrose, cutleaf	<i>Oenothera laciniata</i>
False chamomile*	<i>Matricaria maritima</i>
Filaree, redstem	<i>Erodium cicutarium</i>
Florida pusley	<i>Richardia scabra</i>

<b>Weeds Controlled or Suppressed by MARENGO** (continued)</b>	
<b>Broadleaf Weeds</b>	
Groundsel, common	<i>Senecio vulgaris</i>
Hairy fleabane	<i>Erigeron bonariensis</i>
Hairy nightshade	<i>Solanum sarrachoides</i>
Henbit	<i>Lamium amplexicaule</i>
Marestail	<i>Conyza canadensis</i>
Kochia	<i>Kochia scoparia</i>
Lambsquarters, common	<i>Chenopodium album</i>
Lawn burweed	<i>Soliva sessilis</i>
Little mallow	<i>Malva parviflora</i>
London rocket*	<i>Sisymbrium irio</i>
Longstalked phyllanthus	<i>Phyllanthus tenellus</i>
Mulberry weed	<i>Fatousa villosa</i>
Mustard, black*	<i>Brassica nigra</i>
Mustard, wild	<i>Sinapis arvensis</i>
Parthenium	<i>Parthenium hysterophorus</i>
Pigweed, prostrate	<i>Amaranthus blitoides</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Plantain, buckhorn	<i>Plantago lanceolata</i>
Plantain, paleseed	<i>Plantago virginica</i>

(continued)

<b>Weeds Controlled or Suppressed by MARENGO** (continued)</b>	
<b>Broadleaf Weeds</b>	
Prostrate knotweed	<i>Polygonum aviculare</i>
Prostrate spurge	<i>Euphorbia maculata</i>
Puncturevine	<i>Tribulus terrestris</i>
Purslane, common	<i>Portulaca oleracea</i>
Ragweed, common*	<i>Ambrosia artimisiifolia</i>
Redmaids	<i>Calandrinia</i> spp.
Sesbania, hemp*	<i>Sesbania exaltata</i>
Shepherd's-purse	<i>Capsella bursa-pastoris</i>
Sida, prickly/teaweed*	<i>Sida spinosa</i>
Southern brassbuttons*	<i>Cotula australis</i>
Sowthistle, annual	<i>Sonchus oleraceus</i>
Spurge, spotted	<i>Euphorbia maculata</i>
Sunflower*, common	<i>Helianthus annuus</i>
Swinecress	<i>Coronopus didymus</i>
Tassel flower	<i>Emilia sonchifolia</i>
Tropic ageratum	<i>Ageratum conyzoides</i>
Velvetleaf*	<i>Abutilon theophrasti</i>
Vetch, purple*	<i>Vicia benghalensis</i>
Wild carrot*	<i>Daucus carota</i>
Willowherb	<i>Epilobium brachycarpum</i>

<b>Weeds Controlled or Suppressed by MARENGO** (continued)</b>	
<b>Broadleaf Weeds</b>	
Woodsorrel, yellow*	<i>Oxalis stricta</i>
Woodsorrel/Oxalis*	<i>Oxalis</i> sp.
<b>Grasses, Monocots, and Sedges</b>	
Annual bluegrass/'Poa'	<i>Poa annua</i>
Annual kyllinga	<i>Cyperus sesquiflorus</i>
Barnyardgrass, common	<i>Echinochloa crus-galli</i>
Cheatgrass	<i>Bromus secalinus</i>
Crabgrass	<i>Digitaria</i> sp.
Crabgrass, henry	<i>Digitaria ciliaris</i>
Crabgrass, large/hairy	<i>Digitaria sanguinalis</i>
Crabgrass, smooth	<i>Digitaria ischaemum</i>
Doveweed	<i>Murdannia nudiflora</i>
Foxtail brome	<i>Bromus rubens</i>
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Pennisetum glaucum</i>
Goosegrass	<i>Eleusine indica</i>
Guineagrass	<i>Panicum maximum</i>
Kyllinga, fragrant/annual	<i>Kyllinga odorata</i>
Mouse barley	<i>Hordeum murinum</i>

<b>Weeds Controlled or Suppressed by MARENGO** (continued)</b>	
<b>Grasses, Monocots, and Sedges</b>	
Nutsedge, purple*	<i>Cyperus rotundus</i>
Nutsedge, yellow*	<i>Cyperus esculentus</i>
Red brome	<i>Bromus rubens</i>
Rice flatsedge	<i>Cyperus iria</i>
Ryegrass, italian	<i>Lolium multiflorum</i>
Ryegrass, perennial	<i>Lolium perenne</i>
Sandbur	<i>Cenchrus longispinus</i>
Sedge, annual***	<i>Cyperus</i> spp.
Tufted lovegrass	<i>Eragrostis pectinacea</i>
<p>*Weeds suppressed by <b>MARENGO</b></p> <p>**Higher labeled rates should be used if weed pressure is historically high or longer residual control is desired (See Use Rates in the <b>MARENGO</b> chart). Weed control can also be achieved with multiple applications of <b>MARENGO</b>. Do not exceed a total of 18.5 fl. oz. per acre per year with multiple applications.</p> <p>***<b>MARENGO</b> only controls sedges and annual kyllinga emerging from seed. It does not control perennial sedge emerging from nutlets or perennial forms of kyllinga.</p>	

## **ORNAMENTALS, CHRISTMAS TREES, AND CONIFER PLANTATIONS**

**MARENGO** may be applied for pre-emergent weed control in production ornamentals in outdoor nurseries, shadehouses, hoopouses, Christmas trees, and conifer plantations. Apply **MARENGO** as a directed spray, prior to weed seed germination to the soil surface around dormant or actively growing ornamentals as listed in the table below. Ornamentals should be established prior to applying **MARENGO**.

**USE RESTRICTIONS FOR MARENGO ON PRODUCTION ORNAMENTALS,  
CHRISTMAS TREES, AND CONIFERS**

- Do not exceed the maximum single application rates specified under each Ornamental use.
- Do not exceed a total of 18.5 fl. oz. of **MARENGO** per acre in a 12 month period.
- Do not allow spray to contact foliage. **MARENGO** may cause localized injury to the foliage, especially young leaf tissue. If the spray should contact the foliage, remove affected foliage or wash off immediately.
- Do not use **MARENGO** around bedding plants (annuals and herbaceous plants not specified, or not listed as tolerant on this label).
- Do not apply **MARENGO** during windy conditions where it might contact desirable foliage.
- Do not use **MARENGO** around bearing fruit and nut trees. **MARENGO** may be used around non-bearing trees or vines if they are at least 1-year old (citrus) and 3-years old (all others). Non-bearing trees are defined as trees that will not bear fruit until at least 1 year after treatment.
- Do not mix **MARENGO** into the soil. Cultivating or disturbing the soil surface after application may reduce weed control activity.
- If transplanting mature plants listed as tolerant on this label into soil treated with **MARENGO** within the preceding 12 months, discard existing soil from the planting hole and add new soil around roots to minimize effects on plant establishment.
- Do not use **MARENGO** on ornamentals being grown in a greenhouse.
- Do not use **MARENGO** on nursery seedbeds, rooted cuttings or young plants in liners.
- Do not apply **MARENGO** to ornamentals growing in containers except pot-in-pot ornamentals.
- Do not apply **MARENGO** to ornamental bulbs in production fields.
- Do not apply **MARENGO** to ornamental bulbs in commercial fields while they are emerging or after they have emerged.
- Do not apply **MARENGO** to herbaceous perennials (e.g., hosta) while they are emerging or after they have emerged.
- Do not apply **MARENGO** over-the-top of ornamentals.

- Do not apply **MARENGO** to budded grafts or graft unions as this could cause plant injury or death.
- Do not apply **MARENGO** by air.

#### **SYMPTOMS OF MARENGO INJURY ON ORNAMENTALS**

**MARENGO** may injure sensitive ornamentals by damaging roots or leaves. Plant foliage damaged by root absorption will appear stunted, deformed, and may not recover. If **MARENGO** is allowed to contact leaves, leaf symptoms including leaf spot, leaf discoloration, and leaf curl may appear. Symptoms appear within several days after application. Leaves formed after appearance of symptoms may recover.

Users must assess the severity of any symptoms on cultivars not listed on this label, before proceeding with large-scale applications of **MARENGO**. The user assumes all responsibility for damage on cultivars not listed on this label.

#### **PRODUCTION ORNAMENTAL USES**

**MARENGO** provides up to 8 months of weed control with a single application. The exact length of control depends on many environmental factors as well as the weeds to be controlled and the weed pressure. Apply **MARENGO** as a directed spray to the soil surface only to established (rooted) plants in the soil or in pots and not to newly rooted cuttings/or seedling beds in production nurseries. Do not apply **MARENGO** to newly rooted cuttings/or seedling beds. To avoid root damage, apply **MARENGO** around transplants when the plant is well established and the soil has firmly settled around the root area. Irrigation or rainfall will help to settle the soil and seal surface cracks. Apply **MARENGO** around dormant plants. If applied after dormancy, care should be taken not to contact expanding buds or new leaves. Applications of **MARENGO** should only be made to ornamentals listed on this label. **MARENGO** should be applied to soil free of weeds, debris, and soil clods for optimum efficacy. Herbicidal efficacy may be reduced if soil is disturbed after application.

Application of **MARENGO** to deciduous foliage or green bark may result in unacceptable injury. Apply **MARENGO** to established ornamentals. If the grower is uncertain about ornamental establishment after transplanting, wait 2 months before applying **MARENGO**.

**AMOUNT TO USE:** Apply **MARENGO** as a broadcast, directed spray at 7.5-15.5 fl. oz. of **MARENGO** per acre (0.17-0.36 fl. oz. per 1,000 sq. ft.) around ornamentals in 20-100 gallons



of water per acre (0.5-2.3 gallons of water per 1,000 sq. ft.). When applying **MARENGO** with a backpack sprayer, follow all above restrictions.

To activate **MARENGO** for maximum herbicidal benefit, irrigate the area treated with **MARENGO** to move the herbicide into the soil within 2 days after application. With dry soil, use a minimum of 0.125-0.25 inches of irrigation water. With soil at or greater than field capacity, reduce the amount of irrigation water. In either case, do not create conditions that cause visible run-off of irrigation water. Adequate rainfall following an application will negate the need for irrigation.

A subsequent application of **MARENGO** can be made within 90 days after the initial application provided that the maximum allowed rate does not exceed 18.5 fl. oz. per acre in a 12 month period.

#### **COMBINATIONS OF MARENGO WITH NON-SELECTIVE HERBICIDES AROUND ORNAMENTALS**

Remove existing weed growth before application of **MARENGO** or use a post-emergence herbicide labeled for control. **MARENGO** may be used in combination with a non-selective herbicide such as Finale. Avoid contact of spray containing a non-selective herbicide with foliage, stems, green bark, or bare roots of trees, shrubs, or other desirable vegetation, since severe damage may result. If spraying areas adjacent to desirable plants with a non-selective herbicide, use a shield while spraying to help prevent spray from contacting foliage of desirable plants.

Do not apply **MARENGO** to plant types not listed as tolerant on this label. **MARENGO** may be applied to cultivars of listed tolerant plants that are not listed on this label. Prior to large-scale applications, treat a small number of such plants at the desired use rate. Treated plants should then be evaluated 1 to 2 months after application for possible injury and acceptable tolerance.

**IMPORTANT:** Direct application of **MARENGO** to the soil surface and away from plant foliage and bark. Avoid direct spray contact on plant surfaces, foliage, and green bark or injury may result. Application of **MARENGO** after bud swell may cause injury if herbicide contacts foliage. Avoid application under environmental conditions that favor drift to non-targeted areas. Deep cultivation reduces the effectiveness of **MARENGO** and should be avoided.

## ORNAMENTALS AND THEIR CULTIVARS TOLERANT TO MARENGO

Tolerant ornamentals and their cultivars are listed in the following table. If a cultivar to be treated is not listed on this label, treat several plants of the cultivar at the single maximum desired use rate and evaluate 1 to 2 months later for possible injury and acceptable tolerance. The user assumes responsibility for application on cultivars not listed in this table. If a plant type (designated by genus and/or species) is not listed on this label, do not apply **MARENGO**.

Common Name	Scientific Name	Cultivar
Abelia	<i>Abelia grandiflora</i>	
Arborvitae	<i>Thuja</i> sp.	Green Giant
Arborvitae	<i>Thuja</i> sp.	Nigra
Azalea	<i>Rhododendron</i> sp.	Girard's Rose
Azalea	<i>Rhododendron</i> sp.	Fashion
Azalea	<i>Rhododendron</i> sp.	VF 14
Azalea	<i>Rhododendron</i> sp.	Golden Torch
Azalea, Encore	<i>Rhododendron</i> sp.	Autumn Debutante
Black Tupelo	<i>Nyssa sylvatica</i>	
Boxwood	<i>Buxus microphylla</i>	Green Beauty
Boxwood	<i>Buxus microphylla</i>	Baby Gem
Butterfly Bush	<i>Buddleia</i>	Nanho Blue
Camellia	<i>Camellia japonica</i>	Margaret Heathcliff Pink
Camellia	<i>Camellia sasanqua</i>	Cleopatra Pink
Cedar, Atlantic white	<i>Chamaecyparis</i> sp.	

(continued)

## ORNAMENTALS AND THEIR CULTIVARS TOLERANT TO MARENGO *(continued)*

Common Name	Scientific Name	Cultivar
Cedar, Japanese	<i>Cryptomeria japonica</i>	Black Dragon
Cedar, Japanese	<i>Cryptomeria japonica</i>	Yoshino
Cotoneaster	<i>Cotoneaster</i>	Coral Beauty
Cypress, false	<i>Chamaecyparis</i> sp.	Gold Mops
Cypress, Mediterranean	<i>Cupressus sempervirens</i>	
Elm, American	<i>Ulmus americana</i>	
Florida Pipestem	<i>Leucothoe populifolia</i>	
Forsythia	<i>Forsythia</i>	Lynwood
Fragrant tea olive	<i>Osmanthus fragrans</i>	
Gardenia	<i>Gardenia radicans</i>	Radicans
Gardenia	<i>Gardenia jasminoides</i>	Mystery
Gardenia	<i>Gardenia jasminoides</i>	Frostproof
Green Ash	<i>Fraxinus pennsylvanica</i>	
Hibiscus, Chinese	<i>Hibiscus rosa-sinensis</i>	San Diego Red
Holly, Chinese	<i>Ilex cornuta</i>	Needlepoint
Holly, Gallberry	<i>Ilex glabra</i>	Densa
Holly, Meservae	<i>Ilex meservae</i>	Blue Princess
Holly, Sky Pencil	<i>Ilex</i> sp.	Sky Pencil
Indian Hawthorn	<i>Raphiolepis indica</i>	Pink Lady

## ORNAMENTALS AND THEIR CULTIVARS TOLERANT TO MARENGO *(continued)*

Common Name	Scientific Name	Cultivar
Japanese Cleystera	<i>Ternstroemia gymnanthera</i>	
Japanese Mock-orange	<i>Pittosporum tobira</i>	Variegata
Juniper, Bar Harbour	<i>Juniperus horizontalis</i>	Bar Harbour
Juniper, Blue Pacific	<i>Juniperus conferta</i>	Blue Pacific
Juniper, Blue Rug	<i>Juniperus horizontalis</i>	Blue Rug
Lilac	<i>Syringa</i> x 'Penda'	Bloomerang
Loropetalum	<i>Loropetalum chinensis</i>	Burgundy
Loropetalum	<i>Loropetalum chinensis</i>	Ruby
Maple, red	<i>Acer rubrum</i>	
Maple, sugar	<i>Acer saccharum</i>	
Podocarpus	<i>Podocarpus macrophyllus</i>	
Rose	<i>Rosa</i> sp.	Pink Knock Out®
Rose	<i>Rosa</i> sp.	Knock Out®
Rose, Virginia	<i>Rosa virginiana</i>	
Rose Mallow	<i>Hibiscus moscheutos</i>	
Rose of Sharon	<i>Hibiscus syriacus</i>	Pink Heart
Viburnum, Burkwood	<i>Viburnum</i> x <i>burkwoodii</i>	
Viburnum, popcorn	<i>Viburnum plicatum</i>	Popcorn
Wax myrtle, southern	<i>Myrica cerifera</i>	

## Do not use MARENGO on any of these plants, as injury will occur.

Common Name	Scientific Name
Euonymus, Japanese	<i>Euonymus japonicus</i>
Hydrangea	<i>Hydrangea macrophylla</i>

## CONIFERS AND CHRISTMAS TREES

**MARENGO** may be used for pre-emergence weed control in conifer nurseries and Christmas tree farms. **MARENGO** may be applied as a directed spray to soil surrounding established plants. Avoid contacting plant stems and leaves with the directed spray solution as injury may occur. Established plants are transplants that are actively growing and where the soil has settled. Do not apply to seedlings or seedling beds. Apply 7.5-15.5 fl. oz. of **MARENGO** per acre for these uses. Do not exceed 18.5 fl. oz. of **MARENGO** per acre in a growing season.

**MARENGO** may be tank-mixed with products containing the following active ingredients labeled for use in conifers: glyphosate or glufosinate (Finale). Do not apply tank-mixes of **MARENGO** with these active ingredients to conifer and Christmas tree foliage. Follow use restrictions on all labels.

## NON-SELECTIVE USES

### HARDSCAPES

**MARENGO** may be used to maintain bare ground in non-crop areas. These include gravel areas as well as rocky/sandy areas. All weeds and debris should be removed from the bed area to be treated for optimum control. Observe all restrictions and tolerances for applications of **MARENGO** around ornamentals listed on this label.

Apply 9 to 18.5 fl. oz. of **MARENGO** per acre with uniform coverage to target area. Use a minimum spray volume of 10-20 gallons per acre.

If weeds are present at the time of application, tank-mix a post-emergent herbicide such as Finale with **MARENGO**. Observe all use restrictions on this label and on the label of the

tank-mix partner. Adequate irrigation or rainfall after application of **MARENGO** will provide maximum weed control.

#### **ORNAMENTAL PRODUCTION FACILITIES**

**MARENGO** may be used in ornamental production facilities such as areas covered by landscape fabric, hoophouses, lathhouses and shadehouses to provide bare ground and general weed control beneath benches and potted plants. **MARENGO** may injure the foliage of ornamentals; prevent spray from contacting foliage. Make applications to these sites during clean up, sanitation and preparation prior to plant production. Apply 18.5 fl. oz. product per acre with uniform coverage to target area. Use a minimum spray volume of 20 gallons per acre.

If weeds are present at the time of application, tank-mix a post-emergent herbicide such as Finale with **MARENGO**. Observe all use restrictions on this label and on the label of the tank-mix partner. Water in **MARENGO** after application and allow applied surface to dry prior to introducing plants. For outdoor applications, containers can be moved onto the treated ground bed areas after irrigation or rainfall and once the treated surface has dried. Do not mix with products containing chlorine bleach products. When tank mixing with other products, it is the responsibility of the end-user/applicator to ensure that the tank-mix partner is registered in the state for the application being made.

## **STORAGE AND DISPOSAL**

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

### **PESTICIDE STORAGE**

Store in original container only. Store in a manner to prevent cross-contamination of other pesticides, fertilizer, food, and feed. Do not store in or around the home. Store in a dry, locked storage area.

### **PESTICIDE DISPOSAL**

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

### **CONTAINER HANDLING**

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. 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 puncture and dispose of in a sanitary landfill or by other procedures approved by State and local authorities.

## IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of OHP, Inc. All such risks shall be assumed by the user or buyer.

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