

Supplemental Label



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PAYLOAD[®] HERBICIDE EPA Reg. No. 59639-120

APPLICATION TO MAINTAIN BARE GROUND NON CROP AREAS

DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

GENERAL INFORMATION: *Payload* is a selective herbicide to maintain bare ground non-crop areas when used in accordance with this label. *Payload* is effective as a preemergence and/or postemergence herbicide for control of selected grass and broadleaf weeds.

Payload controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled preemergence when exposed to sunlight following contact with the soil applied herbicide. Preemergence weed control with *Payload* is most effective when applied to clean, weed free soil surfaces. Disturbing soil surfaces may reduce herbicide efficacy. Emerged weeds are controlled postemergence with *Payload* by inhibiting the same enzyme in plants with preemergence applications. The most effective postemergence weed control with *Payload* occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply when weather conditions favor spray drift from treated areas.
- Do not graze treated fields or feed treated forage or hay to livestock.
- Do not incorporate into soil after application.
- Do not apply this product through any type of irrigation system.
- Do not apply more than 12 oz. of *Payload* per acre per application.
- Do not apply more than 24 oz. of *Payload* per acre per year.
- Do not apply to moist or wet desirable plant foliage.
- Do not apply to areas with adjacent non-dormant pome or stone fruit crops.
- Treatment of powdery, dry soil or light sandy soil, or light sandy soil when there is little to no likelihood of rainfall soon after may result in off target movement and possible damage to actively growing susceptible crops when soil particles are moved by wind or water. Do not apply when these soil and environmental conditions are present.
- Not for use in forest management programs or for forest regeneration applications, bearing fruit or bearing nut trees and vine crops.

DIRECTIONS FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS

Payload, when used as directed, can be used for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free. Apply *Payload* only to:

- Bare ground under guard rails, above-ground pipelines, and railroad beds, railroad yards and surrounding areas
- Bare ground in parking and storage areas, plant sites, substations, pumping stations, and tank farms
- Bare ground areas of airports, brick yards, industrial plant sites, lumber yards, military installations, and storage areas
- Bare ground around farm buildings and along fence rows
- Road surfaces, improved roadside areas and gravel shoulders

Follow all applicable directions as outlined above under General Information. See Table 1 for a list of broadleaf weeds and grasses controlled by *Payload*.

Payload offers residual and postemergence control of susceptible broadleaf and grass weeds as well as additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase.

WEEDS CONTROLLED: When *Payload* is applied preemergence or postemergence at recommended rates and weed stages, the following grasses and broadleaf weeds are controlled.

TABLE 1. WEEDS CONTROLLED BY PAYLOAD

| COMMON NAME | SCIENTIFIC NAME |
|-------------------------|---|
| Alyssum, Hoary | <i>Berteroa incana</i> |
| Amaranth | |
| Palmer | <i>Amaranthus palmeri</i> |
| Spiny | <i>Amaranthus spinosus</i> |
| Barnyardgrass* | <i>Echinochloa crus-galli</i> |
| Beggarweed, Florida | <i>Desmodium tortuosum</i> |
| Bittercress, Hairy | <i>Cardamine hirsuta</i> |
| Bluegrass, Annual* | <i>Poa annua</i> |
| Burclover, California | <i>Medicago polymorpha</i> |
| Carpetweed | <i>Mollugo verticillata</i> |
| Chickweed | |
| Common | <i>Stellaria media</i> |
| Mouseear | <i>Cerastium vulgatum</i> |
| Crabgrass | |
| Large* | <i>Digitaria sanguinalis</i> |
| Smooth* | <i>Digitaria ischaemum</i> |
| Southern* | <i>Digitaria ciliaris</i> |
| Croton, Tropic | <i>Croton glandulosus</i> var. <i>septentrionalis</i> |
| Dandelion* | <i>Taraxacum officinale</i> |
| Dogfennel | <i>Eupatorium capillifolium</i> |
| Doveweed | <i>Murdannia nudiflora</i> |
| Eclipta | <i>Eclipta prostrata</i> |
| Filaree, Redstem* | <i>Erodium cicutarium</i> |
| Foxtail | |
| Bristly* | <i>Setaria verticillata</i> |
| Giant* | <i>Setaria faberi</i> |
| Green* | <i>Setaria viridis</i> |
| Yellow* | <i>Setaria glauca</i> |
| Galinsoga, Hairy | <i>Galinsoga ciliata</i> |
| Geranium, Carolina | <i>Geranium carolinianum</i> |
| Goosegrass* | <i>Eleusine indica</i> |
| Groundsel, Common | <i>Senecio vulgaris</i> |
| Henbit | <i>Lamium amplexicaule</i> |
| Indigo, Hairy | <i>Indigofera hirsuta</i> |
| Ivy, Ground* | <i>Glechoma hederacea</i> |
| Jimsonweed | <i>Datura stramonium</i> |
| Kochia | <i>Kochia scoparia</i> |
| Kyllinga, Green* | <i>Kyllinga brevifolia</i> |
| Ladysthumb | <i>Polygonum persicaria</i> |
| Lambsquarters, Common | <i>Chenopodium album</i> |
| Liverwort | <i>Marchantia polymorpha</i> |
| Lovegrass, California * | <i>Eragrostis diffusa</i> |
| Mallow | |
| Common | <i>Malva neglecta</i> |
| Little | <i>Malva parviflora</i> |
| Venice | <i>Hibiscus trionum</i> |
| Mayweed* | <i>Anthemis cotula</i> |

*Preemergence control only.

continued

TABLE 1. WEEDS CONTROLLED BY PAYLOAD

| COMMON NAME | SCIENTIFIC NAME |
|--------------------------|---|
| Morningglory | |
| Entireleaf | <i>Ipomoea hederacea</i> var. <i>integruscula</i> |
| Ivyleaf | <i>Ipomoea hederacea</i> |
| Red/Scarlet | <i>Ipomoea coccinea</i> |
| Smallflower | <i>Jacquemontia tamnifolia</i> |
| Tall | <i>Ipomoea purpurea</i> |
| Moss | <i>Bryum</i> spp. |
| Mustard | |
| Tumble | <i>Sisymbrium altissimum</i> |
| Wild | <i>Brassica kaber</i> |
| Nightshade | |
| Black | <i>Solanum nigrum</i> |
| Eastern Black | <i>Solanum ptycanthum</i> |
| Hairy | <i>Solanum sarrachoides</i> |
| Panicum | |
| Fall* | <i>Panicum dichotomiflorum</i> |
| Texas* | <i>Panicum texanum</i> |
| Parsley-Piert | <i>Alchemilla arvensis</i> |
| Pearlwort, Birdseye* | <i>Sagina procumbens</i> |
| Pennycress, Field | <i>Thlaspi arvense</i> |
| Phyllanthus, Longstalked | <i>Phyllanthus tenellus</i> |
| Pigweed | |
| Prostrate | <i>Amaranthus blitoides</i> |
| Redroot | <i>Amaranthus retroflexus</i> |
| Smooth | <i>Amaranthus hybridus</i> |
| Tumble | <i>Amaranthus albus</i> |
| Pineapple-weed* | <i>Matricaria matricarioides</i> |
| Plantain | |
| Broadleaf* | <i>Plantago major</i> |
| Buckhorn* | <i>Plantago lanceolata</i> |
| Poinsettia, Wild | <i>Euphorbia heterophylla</i> |
| Puncturevine | <i>Tribulus terrestris</i> |
| Purslane, Common | <i>Portulaca oleracea</i> |
| Pusley, Florida | <i>Richardia scabra</i> |
| Ragweed | |
| Common | <i>Ambrosia artemisiifolia</i> |
| Giant | <i>Ambrosia trifida</i> |
| Redmaids | <i>Calandrinia ciliata</i> |
| Redweed | <i>Melochia corchorifolia</i> |
| Rocket, Yellow | <i>Barbarea vulgaris</i> |
| Senna, Coffee | <i>Cassia occidentalis</i> |
| Sesbania, Hemp | <i>Sesbania exaltata</i> |
| Shepherd's-Purse | <i>Capsella bursa-pastoris</i> |
| Sida, Prickly (Teaweed) | <i>Sida spinosa</i> |
| Signalgrass* | <i>Brachiaria platyphylla</i> |
| Smartweed, Pennsylvania | <i>Polygonum pennsylvanicum</i> |
| Sowthistle, Annual | <i>Sonchus oleraceus</i> |
| Spurge | |
| Prostrate | <i>Euphorbia humistrata</i> engelm |
| Spotted | <i>Euphorbia maculata</i> |
| Starbur, Bristly* | <i>Acanthospermum hispidum</i> |
| Thistle | |
| Canada* | <i>Cirsium arvense</i> |
| Russian | <i>Salsola iberica</i> |
| Velvetleaf | <i>Abutilon theophrasti</i> |

*Preemergence control only.

continued

TABLE 1. WEEDS CONTROLLED BY PAYLOAD

| COMMON NAME | SCIENTIFIC NAME |
|-----------------------------|---|
| Waterhemp Common Tall | <i>Amaranthus rudis</i> <i>Amaranthus tuberculatus</i> |
| Woodsorrel, Yellow* | <i>Oxalis stricta</i> |

*Preemergence control only.

PREEMERGENCE APPLICATION: Preemergence application of *Payload* should be made prior to weed emergence. Moisture is necessary to activate *Payload* on soil for residual weed control. Moisture is needed to move *Payload* into the soil for preemergent weed control. Dry weather following application of *Payload* may reduce effectiveness.

Apply 8 to 12 oz. (0.25 to 0.38 lb. ai/A) of *Payload* per broadcast acre as a preemergence application. Preemergence (to weed emergence) applications of *Payload* should be made to a weed free soil surface. Preemergence applications of *Payload* must be completed prior to weed emergence. Moisture is necessary to activate *Payload* on soil for residual weed control. Dry weather following application of *Payload* may reduce effectiveness. However, when adequate moisture is received after dry conditions, *Payload* will control susceptible germinating weeds.

POSTEMERGENCE APPLICATION: For best results, *Payload* should be applied to actively growing weeds. Applying *Payload* under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply *Payload* when the crop or weeds are under stress due to drought, excessive water and extremes in temperatures or disease. Weeds under stress tend to become less susceptible to herbicidal action. *Payload* is most effective when applied under sunny conditions at temperatures above 65°F.

Payload is rainfast one hour after application. Applications should not be made if rain is expected within one hour of application or efficacy may be reduced.

Apply 8 to 12 oz. (0.25 to 0.38 lb. ai/A) of *Payload* per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). The addition of an adjuvant enhances *Payload* activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of *Payload*. Emerged weeds are controlled postemergence with *Payload*, however, translocation of *Payload* within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with *Payload* occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

APPLICATION EQUIPMENT: Important: Spray equipment, including all tanks, hoses, booms, screens and nozzles, should be thoroughly cleaned. **Spray equipment used to apply *Payload* should not be used to apply other materials to any desirable plant foliage.** Equipment with *Payload* residue remaining in the system may result in crop injury to subsequently treated crops.

SPRAYER PREPARATION: Before applying *Payload*, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms should be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to the sulfonyleurea and phenoxy herbicides, are active at very small amounts and can cause crop injury when applied to susceptible crops. The spray equipment should be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply *Payload*. If two or more products were tank mixed prior to *Payload* application, the most restrictive cleanup procedure should be followed.

MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. To ensure a uniform spray mixture, pre-slurry the required amount of *Payload* with water prior to addition to the spray tank. Use a minimum of 1 gal. of water per 10 oz. of *Payload*.
3. While agitating, slowly add the pre-slurried *Payload* to the spray tank. Agitation should create a rippling or rolling action on the water surface.
4. If tank mixing *Payload* with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.

5. Add any required adjuvants.
6. Fill spray tank to desired level with water. **Agitation should continue until spray solution has been applied.**
7. Mix only the amount of spray solution that can be applied the day of mixing. *Payload* should be applied within 24 hours of mixing.

SPRAYER CLEANUP: Except for dedicated bare ground herbicide application equipment, spray equipment should be cleaned each day following *Payload* application. The following steps should be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Top off tank, add suitable commercial spray tank cleaning material, following label directions, or add 1 gal. of 3% household ammonia for every 100 gals. of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes.
4. Drain tank completely.
5. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
6. Remove all nozzles and screens and rinse them with clean water.

Spray Drift Reduction: Do not apply under circumstances where possible drift to unprotected persons or to food, forage or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur.

- Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. For ground boom and aerial applications, use medium or coarser spray nozzles according to ASAE 572 definition for standard nozzles or a volume mean diameter (VMD) of 300 microns or greater for spinning atomizer nozzles.
- Make aerial or ground applications when the wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph. For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.
- Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.
- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.
- For ground boom applications, apply with nozzle height at the lowest boom height which provides uniform coverage and reduces exposure to evaporation and wind.

SOIL CHARACTERISTICS: Application of *Payload* to soils with high organic matter and/or high clay content may require higher dosages than with soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

CARRIER VOLUME AND SPRAY PRESSURE

PREEMERGENCE APPLICATION: To ensure uniform coverage, use 10 to 30 gals. of spray solution per acre. Nozzle selection should meet manufacturer's gallonage and pressure recommendation for preemergence herbicide application.

POSTEMERGENCE APPLICATION: To ensure thorough coverage, use 15 to 30 gals. of spray solution per acre. Use 20 to 30 gals. per acre if dense vegetation or heavy residue is present on the soil surface. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for postemergence herbicide application.

ADDITIVES

POSTEMERGENCE APPLICATION: Using *PAYLOAD* to control weeds after they emerge requires the addition of an agronomically approved adjuvant to the spray mixture. A crop oil concentrate which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient should be used when applying *Payload* as part of a postemergence weed control program. Mixing compatibility should be verified by a jar test before using.

A spray grade nitrogen source (either ammonium sulfate at 2.0 to 2.5 lb./A or a 28 to 32% nitrogen solution at 1 to 2 qt./A) may be added to the spray mixture along with a crop oil concentrate or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for crop oil concentrate or non-ionic surfactant.

JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND *PAYLOAD*: A jar test should be performed before mixing commercial quantities of *Payload*, when using *Payload* for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt. of water to a quart jar. The water should be from the same source and have the same temperature as the water used in the spray tank mixing operation.
2. Add 3 grams (approximately 1 level tsp.) of *Payload* for the 8 oz./A rate or 4 grams (approximately 1-1/2 tsp.) for 12 oz./A rate to the jar. Gently mix until product disperses.
3. Add 60 ml (4 Tbsp. or 2 fl. oz.) of additive to the quart jar and gently mix.
4. If nitrogen is being used, add 16 ml (1 Tbsp.) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 grams of AMS to the quart jar in place of the 28 to 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed the choice of adjuvant should be questioned:
 - a) Layer of oil or globules on the solution surface.
 - b) Flocculation: Fine particles in suspension or as a layer on the bottom of the jar.
 - c) Clabbering: Thickening texture (coagulated) like gelatin.

APPLICATION EQUIPMENT: Application equipment should be clean and in good repair. Nozzles should be uniformly spaced on boom and frequently checked for accuracy.

BROADCAST APPLICATION: Apply *Payload*, and *Payload* tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume.

BAND APPLICATION: When banding, use proportionately less water and *Payload* per acre.

HANDGUN APPLICATION: Applications may also be made using a handgun sprayer. Use a spray volume of at least 40 gals. per acre to insure uniform coverage.

AERIAL APPLICATION

- **Aerial applications are limited to maintaining weed free railroad beds, railroad yards and surrounding areas.**

To obtain satisfactory weed control with aerial applications of *Payload*, uniform coverage must be obtained. Do not spray when drift is possible or when wind velocity is more than 10 mph. Avoid spraying *Payload* within 200 feet of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed:

Volume Pressure: Use *Payload* in 5 to 10 gals. of water per acre with a maximum spray pressure of 40 PSI. Application at less than 5 gals. per acre will provide inadequate weed control. Higher gallonage applications provide more consistent weed control.

Nozzle and Nozzle Operation: Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles, such as diaphragm type nozzles to avoid unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.

Adjuvants: Refer to the additive section or the tank mix partner's label for adjuvant recommendation.

TANK MIX APPLICATION: In addition to weeds controlled by *Payload* used alone, tank mixtures with other preemergence and postemergence herbicides registered for use in non-crop areas provide a broader spectrum of weed control. *Payload* must be tank mixed with other non-crop herbicides including, but not limited to those products listed below.

TANK MIX COMBINATIONS FOR NON-SELECTIVE VEGETATION CONTROL

| | | |
|---------------|--------------------|---------------------|
| 2,4-D | hexazinone | picloram |
| bromacil | imazapic | pramitol |
| chlorsulfuron | imazapyr | prodiamine |
| dicamba | metsulfuron methyl | simazine |
| diuron | norfurazon | sulfometuron methyl |
| clorpyralid | oryzalin | tebuthiuron |
| glyphosate | pendimethalin | triclopyr |

IMPORTANT: Completely read and follow the label of any potential *Payload* tank mix partner. When using tank mixtures, use conditions must be in accordance with the most restrictive of the label limitations and precautions on either herbicide label.

THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF APPLICATION. PLEASE REFER TO CONTAINER LABEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS. FOLLOW ALL APPLICATION DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE EPA REGISTERED LABEL.

PLEASE CONTACT VALENT U.S.A. CORPORATION AT 1-800-89-VALENT (898-2536) TO DETERMINE IF THIS USE IS REGISTERED IN YOUR STATE.

Manufactured for
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Read and follow the label instructions before using.

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