

Specimen Label



Herbicide

*Trademark of Dow AgroSciences LLC

A selective herbicide for preemergence control of certain annual grasses and broadleaf weeds

Active Ingredient:

ethalfluralin: *N*-ethyl-*N*-(2-methyl-2-propenyl)-
2,6-dinitro-4-(trifluoromethyl)benzenamine 10%

Inert Ingredients 90%

Total 100%

Contains 5 pounds of active ingredient per 50 pound bag.

EPA Reg. No. 62719-184

Precautionary Statements

Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

DANGER PELIGRO

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.)

Corrosive • Causes Irreversible Eye Damage • Harmful If Inhaled

Do not get in eyes or on clothing. Avoid breathing dust. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, 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.
- Users should 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.

First Aid

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

If swallowed: Call a doctor or get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person. Drink promptly a large quantity of milk, eggwhites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

If inhaled: Remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Environmental Hazards

This product is toxic to fish and aquatic invertebrates. Do not apply directly to any body of water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Runoff or erosion from treated areas may be hazardous to fish in neighboring areas.

Notice: Read the entire label. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" elsewhere on this label.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Keep away from food, feedstuffs and water supplies. Do not ship or store with food, feeds, drugs or clothing.

Avoid Freezing - Store Above 40°F

Directions for Use

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

Read all Directions for Use carefully before applying.

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

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

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

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 over long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

Storage and Disposal

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

Storage: Store in original container only. In case of spill, contain material and dispose as waste.

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

Container Disposal: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, in accordance with applicable regulations, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

General Information

Sonalan* 10G is a selective herbicide for preemergence control of certain annual grasses and broadleaf weeds. Apply and incorporate Sonalan 10G before planting. Sonalan 10G does not control established weeds.

General Use Precautions

Poor weed control and/or crop injury may result if directions are not followed. Uneven application or improper incorporation can result in erratic weed control or injury to the treated or rotational crops.

Do not graze or use treated crop for feed or forage including silage.

Do not apply Sonalan 10G to soils that are wet, cloddy, or subject to prolonged periods of flooding as poor weed control or crop injury may result.

Apply only in areas and to crops specified on this label.

Rotational Crop Restrictions

Replanting: If replanting is required, plant only those crops listed on this label.

Sugar Beets or Red Beets: Do not plant sugar beets or red beets within 13 months following an application of 11 or more pounds per acre of Sonalan 10G. Where less than 11 pounds per acre of Sonalan 10G have been applied, sugar beets or red beets may be planted 8 months after an application of Sonalan 10G provided that the treated area is moldboard plowed to a depth of 12 inches prior to planting.

Spinach or Oats: In California and Arizona do not plant spinach or oats within 8 months following an application of 11 pounds or more of Sonalan 10G.

Special Rotational Crop Restrictions for the States of Montana and Wyoming: Plant only rapeseed (canola), safflower or sunflower as rotational crops in the crop year following the crop treated with 11.25 pounds per acre of Sonalan 10G. In addition to rapeseed (canola), safflower or sunflower, spring seeded barley grown under irrigated conditions can be planted in the crop year following the crop treated with a 7.5 pound per acre rate of Sonalan 10G. If one of these specified crops is not planted, the land should be left idle or fallow for the entire year following the crop treated with Sonalan 10G.

Application Directions

Factors influencing the uniform application and incorporation of Sonalan 10G:

Crop Residues or Existing Weeds - Excessive amounts of crop residues or existing weeds may interfere with the incorporation of Sonalan 10G into the soil. A manageable level of such ground cover will allow Sonalan 10G to be uniformly mixed into the top two (2) to three (3) inches of the final seedbed. If the level of the ground cover is such that this cannot be done, the soil must be tilled prior to the application of Sonalan 10G.

Soil Roughness - The soil surface should be smooth enough so that you can operate a sprayer and incorporation equipment without wheel slippage and at speeds which ensure a uniform application and incorporation of Sonalan 10G.

General Soil Conditions - To assure uniform incorporation of Sonalan 10G, soil moisture conditions should be such that large clods can be broken up during the incorporation process.

Application

Apply Sonalan 10G only with equipment capable of accurate calibration and uniform application of herbicide granules. Apply at recommended rate for soil texture. Follow calibration directions provided by the equipment manufacturer.

Application Timing

Spring Application: Apply and incorporate Sonalan 10G any time after January 1 when soil can be worked and is in a condition which allows thorough mixing to insure uniform incorporation.

Fall Application: Sonalan 10G may be applied and incorporated in the fall prior to a spring planting of dry beans or sunflowers. Apply Sonalan 10G anytime between October 1 and December 31 at the recommended rates for crops and soil textures listed in the Approved Crops section of this label. Fall application of Sonalan 10G is not recommended on fields which remain wet or are subject to periods of flooding.

Soil Incorporation

Two incorporation passes are necessary for Sonalan 10G. Incorporation should occur as soon as possible after application and, to prevent loss of herbicidal activity, should not be delayed more than 48 hours after application. For best weed control results the second incorporation should be delayed for at least 5 days after the first. Use incorporation equipment capable of thoroughly and uniformly mixing Sonalan 10G into the top 2 to 3 inches of the final seedbed or erratic weed control and/or crop injury may result.

When fall applied, incorporate Sonalan 10G once within 48 hours after application. In the spring, tillage associated with seedbed preparation may be used to destroy established weeds and improve the uniformity of incorporation. To avoid bringing untreated soil to the surface, the second incorporation should not be deeper than the first and should occur before planting.

Optional Methods of Incorporation for Soybeans, Dry Beans and Peanuts on Medium and Coarse Textured Soils: Sonalan 10G may be applied as a surface application and incorporated by rainfall or sprinkler irrigation. Soil should be in good till and free of clods. Make applications to tilled land and/or standing or chopped stubble from the previous season's crop. Conditions should permit thorough movement into the top 2-3 inches of the final seedbed. Application should be made immediately after tillage and after planting, but prior to rainfall or irrigation. Rainfall or sprinkler irrigation prior to application will tend to consolidate and seal the soil surface and prevent the downward movement of Sonalan 10G that is expected under porous, open, recently tilled conditions.

If continuous rainfall in the amount of at least one-half to one-inch occurs within 2 days after application of Sonalan 10G, no further incorporation is required. If the prescribed amount of rainfall is not anticipated, supplemental overhead sprinkler irrigation of at least one-half to one-inch of water may be applied within 2 days after application. Supplemental irrigation can be applied through a center pivot, solid set or hand moved sprinkler system. Furrow irrigation is prohibited. Mechanical incorporation methods should be used to incorporate Sonalan 10G if the required amount of rainfall or supplemental irrigation does not occur within two days after application. If mechanical incorporation is used, adjust equipment so as to not disturb planted seed.

Note: Do not apply more than 14 pounds (1.4 lb a.i.)/acre, regardless of the application rate in specific use directions, if incorporation is to be accomplished by supplemental overhead sprinkler irrigation. Do not apply more than 7.5 pounds (0.75 lb a.i.)/acre, regardless of the application rate in specific use directions, if incorporation is to be accomplished by rainfall only.

Cultivation After Planting

Sonalan 10G treated areas may be shallowly cultivated without loss of weed control activity. Avoid deep cultivation that could bring untreated soil to the soil surface resulting in loss of weed control.

Soil Texture Guide for Application Rates

Use rates of Sonalan 10G for specific crops are based on the "Soil Texture Class" (coarse, medium, or fine) of the soil to be treated, and organic matter content. A fine-textured soil (clay loam) requires a higher use rate than a coarse-textured soil (loamy sand). Field soil textures, grouped according Soil Texture Class, are listed in the table below and should be used to determine if the soil to be treated is coarse, medium or fine. Do not exceed recommended use rates for specific crops or target weed species.

Soil Texture Class	Field Soil Texture Group
Coarse soils (Light)	Sand, Loamy sand, Sandy loam
Medium soils	Loam, Silty clay loam [†] , Silt loam, Silt, Sandy clay loam [†]
Fine Soils (Heavy)	Clay, Clay loam, Silty clay loam [†] , Silty clay, Sandy clay, Sandy clay loam [†]

[†]Silty clay loam and sandy clay loam soils are transitional soils and may be classified as either medium or fine textured soils. If silty clay loam or sandy clay loam soils are predominantly sand or silt, they are usually classified as medium textured soils. If they are predominantly clay, they are usually classified as fine textured soils.

Application Rate Ranges: Where a rate range is shown, use the lower rate for more coarse-textured soils in the Field Soil Texture Group or soils with low organic matter content. Use the higher rate in the rate range for more fine-textured soils in the Field Soil Texture Group and soils containing more than 5% organic matter. Where soil texture is variable within the same field, use the lower recommended rate for Sonalan 10G. Sonalan 10G is not recommended for use on soils containing more than 10% organic matter.

Weeds Controlled by Preplant Incorporated Treatment with Sonalan 10G

Grasses:

Common Name	Scientific Name
annual bluegrass	<i>Poa annua</i>
barnyardgrass	<i>Echinochloa crus-galli</i>
crabgrass	<i>Digitaria</i> spp.
(large crabgrass)	
(smooth crabgrass)	
cupgrass, woolly	<i>Eriochloa villosa</i>
foxtail	<i>Setaria</i> spp.
(giant foxtail)	
(green foxtail)	
(foxtail millet)	
(pigeongrass)	
(yellow foxtail)	
johnsongrass (from seed)	<i>Sorghum halepense</i>
jungerice	<i>Echinochloa colonum</i>
oat, wild [†]	<i>Avena fatua</i>

panicum, fall	<i>Panicum dichotomiflorum</i>
panicum, Texas (buffalograss) (Coloradograss) (annual ryegrass)	<i>Panicum texanum</i>
sandbur, field	<i>Cenchrus incertus</i>
shattercane (wild cane)	<i>Sorghum bicolor</i>
signalgrass, broadleaf (brachiaria)	<i>Brachiaria platyphylla</i>
witchgrass	<i>Panicum capillare</i>

Broadleaf Weeds:

Common Name	Scientific Name
buckwheat, wild	<i>Polygonum convolvulus</i>
carpetweed	<i>Mollugo verticillata</i>
catchfly, conical	<i>Silene conica</i>
chickweed, common	<i>Stellaria media</i>
fiddleneck tarweed	<i>Amsinckia lycopsoides</i>
groundcherry, annual ^{††} (lanceleaf groundcherry)	<i>Physalis lanceifolia</i>
henbit	<i>Lamium amplexicaule</i>
kochia	<i>Kochia scoparia</i>
lambquarters, common	<i>Chenopodium album</i>
nightshade, annual ^{††} (black nightshade) (eastern black nightshade) (hairy nightshade)	<i>Solanum</i> spp.
pigweed (prostrate pigweed) (redroot pigweed) (smooth pigweed) (tumble pigweed)	<i>Amaranthus</i> spp.
purslane, common	<i>Portulaca oleracea</i>
pusley, Florida	<i>Richardia scabra</i>
rockpurslane, redmaids	<i>Calandrinia caulescens</i>
thistle, Russian	<i>Salsola iberica</i>

[†]Sonalan 10G will provide wild oat control, except for seeds germinating below the zone treated with Sonalan 10G.
^{††}See special use rates for control in dry bean.

Approved Crops

DRY BEANS

Apply and incorporate Sonalan 10G in the spring before planting or in the fall. See instructions for fall application of Sonalan 10G under the heading "Application Timing" in the General Information section of this label. Follow soil preparation, application and incorporation procedures recommended in the "General Information" section of this label.

Broadcast Application Rates Per Acre: General weed control, except groundcherry and nightshade.

Soil Texture	Sonalan 10G (pounds)
Coarse	5.5 - 7.5
Medium	7.5 - 9.5
Fine	9.5 - 11.5

Broadcast Application Rates Per Acre: General weed control, including groundcherry and nightshade from seed.

Soil Texture	Sonalan 10G (pounds)
Coarse	11.5 - 13.0
Medium	13.0 - 15.0
Fine	15.0 - 17.0

Precautions

- Do not use these application rates for Sonalan 10G for garden bean, green bean, snap bean, or string bean.
- When high rates for control of nightshade are applied, rotate only to crops listed on this label.

Overlay or Postemergence Treatments Following Application of Sonalan 10G

For broader spectrum weed control, other products registered for use in dry beans as overlay or postemergence treatments may be applied following application of Sonalan 10G. Consult the manufacturer's label for additional weeds controlled, directions for use, cautions and limitations before use.

**DRY PEAS
(Do Not Use in California)**

Apply and incorporate Sonalan 10G in the spring before planting or in the fall. See instructions for fall application of Sonalan 10G under the heading "Application Timing" in the General Information section of this label. Follow soil preparation, application and incorporation procedures recommended in the "General Information" section of this label.

Broadcast Application Rates Per Acre: General weed control, except groundcherry and nightshade.

Soil Texture	Sonalan 10G (pounds)
Coarse	5.5 - 7.5
Medium	7.5

Precaution: Do not exceed recommended rates for Sonalan 10G in dry peas or crop injury may occur. Not all varieties of peas have been tested for tolerance to Sonalan 10G. Consult your seed contractor before applying Sonalan 10G to determine the tolerance of a particular pea variety. Application of Sonalan 10G to non-tolerant varieties may result in crop injury and reduced yield. Do not graze or forage crop grown in treated soil or cut for hay or silage.

PEANUTS

Apply and incorporate Sonalan 10G in the spring before planting. Follow soil preparation, application and incorporation procedures recommended in the "General Information" section of this label.

Broadcast Application Rates Per Acre:

Soil Texture	Sonalan 10G (pounds)
Coarse	5.5 - 7.5
Medium	7.5 - 9.5
Fine	9.5 - 11.5

Precaution: Do not graze or forage crop grown in treated soil or cut for hay or silage.

Overlay or Postemergence Treatments Following Application of Sonalan 10G

For broader spectrum weed control, other products registered for use in peanuts as overlay or postemergence treatments may be applied following application of Sonalan 10G. Consult the manufacturer's label for additional weeds controlled, directions for use, cautions and limitations before use.

SOYBEANS

Apply and incorporate Sonalan 10G in the spring before planting or in the fall. See instructions for fall application of Sonalan 10G under the heading "Application Timing" in the General Information section of this label. Follow soil preparation, application and incorporation procedures recommended in the "General Information" section of this label.

Broadcast Application Rates Per Acre: General weed control, except groundcherry and nightshade.

Soil Texture	Sonalan 10G (pounds)
Coarse	5.5 - 7.5
Medium	7.5 - 9.5
Fine	9.5 - 11.5

Broadcast Application Rates Per Acre: General weed control, including partial control of groundcherry and nightshade from seed.

Soil Texture	Sonalan 10G (pounds)
Medium	11.5
Fine	13.0

Precautions:

- When high rates for control of nightshade are applied, rotate only to crops listed on this label.
- Soybeans should be planted no more than 2 inches deep after early season adverse weather conditions have passed, especially when using higher rate programs. Excessively deep planting or cool wet weather early in the growth cycle causes additional stress to soybean plants. These factors may result in a reduced stand, delayed maturity and reduced yield.

Overlay or Postemergence Treatments Following Application of Sonalan 10G

For broader spectrum weed control, other products registered for use in soybeans as overlay or postemergence treatments may be applied following application of Sonalan 10G. Consult the manufacturer's label for additional weeds controlled, directions for use, cautions and limitations before use.

SUNFLOWERS

Apply and incorporate Sonalan 10G in the spring before planting or in the fall. See instructions for fall application of Sonalan 10G under the heading "Application Timing" in the General Information section of this label. Follow soil preparation, application and incorporation procedures recommended in the "General Information" section of this label.

Broadcast Application Rates Per Acre: General weed control, except groundcherry and nightshade.

Soil Texture	Sonalan 10G (pounds)
Coarse	5.5 - 7.5
Medium	7.5 - 9.5
Fine	9.5 - 11.5

Broadcast Application Rates Per Acre: General weed control, including groundcherry and nightshade from seed.

Soil Texture	Sonalan 10G (pounds)
Coarse	11.5 - 13.0
Medium	13.0 - 15.0
Fine	15.0 - 17.0

Precaution: When high rates for control of nightshade are applied, rotate only to crops listed on this label.

Overlay or Postemergence Treatments Following Application of Sonalan 10G

For broader spectrum weed control, other products registered for use in sunflowers as overlay or postemergence treatments may be applied following application of Sonalan 10G. Consult the manufacturer's label for additional weeds controlled, directions for use, cautions and limitations before use.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

*Trademark of Dow AgroSciences LLC

Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.

EPA-Accepted 03-17-99

Label Code: D02-041-010

Replaces Label: D02-041-009

Revisions:

Label revised to comply with the requirements of the Reregistration Eligibility Decision (RED) for ethalfuralin. The following label sections were revised: Precautionary Statements, PPE, Engineering Controls, User Safety Recommendations, First Aid, Environmental Hazards, Agricultural Use Requirements.