

US EPA ARCHIVE DOCUMENT

EUP 29	Date 7/14/77	Product Name Roundup	Use Classification	Toxic Category
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RECOMMENDATION: register other (explain)

Petitioner seeks extension of the EUP to use total of 705 gallons of Roundup in coming year CB (various memos of Mr. Don Duffy, June, 1977, in glyphosate PP's, e.g., No. 7G1893, 6/29/77 finds 0.2-0.4 ppm N-nitrosoglyphosate (NNG) are present in Roundup. Petitioner has made no assessment of possible hazard to workers who will use Roundup in proposed program. DATA

TB is unable to recommend for the requested EUP pending such information. Petitioner is asked to address this question.	TECH	FORMULATION	USE DILUTION	ACCEPTABLE
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Toxic signs:

Comments:

Acute Dermal (Rabbit)	LD50				
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Toxic signs:

Comments:

Acute Inhalation ()	LC50				
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Toxic signs:

Comments:

Primary Eye Irritation (Rabbit) Draize score:			//////
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Comments:

Primary Skin Irritation (Rabbit) Draize score:			//////
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Comments:

Other Studies:



HERBICIDE BY

Monsanto

For experimental use only on IRRIGATION SYSTEMS, DRAINAGE SYSTEMS AND SMALL WATER IMPOUNDMENTS such as Farm Ponds.

For use in those states West of the Mississippi River only, including Hawaii in accordance with this EPA Experimental Use Permit No. 524-EUP-29

Not for sale to any person other than a participant or cooperator of the EPA approved Experimental Use Program. Water soluble herbicide for evaluation of non-selective weed control. AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

PRECAUTIONARY STATEMENTS

Hazard to Humans

WARNING!

Keep out of reach of children.

CAUSES EYE IRRITATION.

WARNING: IF SWALLOWED.

DO NOT GET IN eyes, on skin or on clothing.

FIRST AID: In case of contact immediately flush eyes with plenty of water for at least 15 minutes. Get a physician flush skin with water. Wash clothing before reuse.

Physical or Chemical Hazards

Roundup spray solutions should be mixed, stored and applied only in stainless steel, aluminum, fiber-glass, plastic and plastic lined steel containers. DO NOT MIX, STORE OR APPLY ROUNDUP OR ROUNDUP SPRAY SOLUTIONS IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. Roundup or Roundup spray solutions react with such containers and tend to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture may catch fire or explode causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette, or other ignition source.

Read the entire label.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return if once unopened.

ACTIVE INGREDIENT:

glycolamine salt of Glyphosate 41.0%

WEIGHT INGREDIENTS: 59.0%

100.0%

*Contains 450 grams per liter or 4 pounds of the active ingredient glyphosate salt of N-(phosphonomethyl) glycine per U.S. gallon. Equivalent to 359 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

Storage and Disposal
STORE ABOVE 10° F. TO PREP FROM FREEZING
Freezing will result in crystals which settle to the bottom of the can. If exposed to lower temperatures in a warm room (72° F.) and melt and shake the can thoroughly for several days to redissolve.
Avoid contamination of soil, food, and livestock.
Do not reuse containers, destroy when empty.

LIMIT OF WARRANTY AND LIABILITY

This company warrants that this material conforms to the chemical description on the label and is reasonably fit for the purposes intended in the directions for use. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY IS MADE. The exclusive remedy of the user or buyer, and the limit of the liability of this company or any other seller for any and all losses, injuries or damages resulting from the use or handling of this product shall be replacement of the quantity of this product involved. The buyer and all users are deemed to have accepted the terms of this warranty which may not be varied by any verbal or written agreement.

GENERAL INFORMATION

Roundup, a water soluble liquid, mixes readily with water to be applied as a foliage spray for the control or destruction of most herbaceous plants.

Roundup moves through the root from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days but on most perennial weeds may not occur until 7 to 10 days. Extremely cool or cloudy weather at treatment time may slow down activity of this product and delay visible effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above ground growth and deterioration of underground plant parts.



In case of an emergency involving this product, Call Central City or night, (314) 694-1000

NET 1 U.S. GAL.

MONSANTO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MISSOURI 63166 U.S.A. EPA Est. 9536 LA-1

Delay application until vegetation has emerged to the stages described for control of such vegetation under the "Weeds Controlled" section of this label. To provide adequate leaf surface to receive the spray. Unemerged plants arising from underground rhizomes or root stocks of perennials will not be affected by the spray and will continue to grow. For this reason best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or (2) weeds are under poor growing conditions such as drought.

Rainfall occurring within 6 hours after application may reduce effectiveness. Heavy rain within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

ATTENTION

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURING DESIRABLE PLANTS AND CROPS. Do not allow spray mist to drift since even minute quantities of spray can cause severe damage or destruction to nearby crops, plants or other areas on which treatment is not intended, or may cause other unintended consequences. Do not apply when winds are gusty or when other conditions will allow drift to occur. When spraying avoid combinations of pressure and nozzle type that will result in fine particles (mist) which are more likely to drift.

The use of EPA EPA approved drift control agents may be critical in reducing drift hazards.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep containers closed to prevent spills and contamination.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water. Do not contaminate water by disposal of wastes or cleaning of equipment.

MIXING AND APPLICATION INSTRUCTIONS

This herbicide mixes readily with water. REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED such as WATER AND PONDINGS AND UNLINED DITCHES for ground or industrial type sprayers fill the spray tank with one half the required amount of water. Add the proper amount of herbicide (See "Directions for Use" and "Weeds Controlled" sections of this label), and mix well before adding the remaining portion of water. Placing the spray hose near the surface of the liquid solution will prevent excessive foaming. Removing hose from tank immediately and avoid back siphoning into water source. Use of mechanical agitators may cause excessive foaming. By-pass lines should terminate at the bottom of the tank. For hand boom sprayer equipment, use 50 mesh nozzle and fine screens.

When the concentration of Roundup in the spray will be less than 1 percent (1 gallon Roundup per 100 gallons of carrier) the addition of 1 quart of surfactant per 100 gallons of spray volume may improve performance.

For use in backpack sprayers it is suggested that the proper amount of Roundup be mixed with water in a larger container. Fill sprayer with the mixed solution.

APPLY IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT. CAREFUL OF BLENDING DESIRABLE CROPS. DO NOT APPLY UNDER WIND OR OTHER CONDITIONS WHICH ALLOW DRIFT TO OCCUR. HAND CUP APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS.

WEEDS CONTROLLED

Roundup controls many annual and perennial grasses and broadleaf weeds.

CONTROL OF ANNUAL WEEDS

Apply 1 to 2½ quarts of this product in 10 to 100 gallons of water per acre in actively growing grasses and broadleaf weeds.

Annual weeds generally will continue to germinate from seed throughout the growing season. Repeat treatments may be necessary to control later germinating weeds.

CONTROL OF PERENNIAL WEEDS

Apply 2 to 4 quarts of this product in 10 to 100 gallons of water per acre. Apply when weeds have reached early head or early bud stage of growth.

NOTE: Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

DIRECTIONS FOR USE

Consult local State Fish and Game Agency before applying this product to public waters. Permits may be required to treat such waters.

For control of undesirable vegetation along irrigation systems, drainage systems, streambeds or in impoundments used for irrigation and small farm ponds in those states west of the Mississippi River including Hawaii.

SPRAYING INSTRUCTIONS: Apply this product at rates and volumes shown in the "Weeds Controlled" section of this label. Apply with power spray wand, boom or hand gun mounted on a truck, tractor or boat.

When spraying avoid combinations of pressure and nozzle type that will result in fine particles (mist) which are more likely to drift. Apply only to the growing portions to avoid undesirable concentration of the product in water. Spray only 0.5 acre of the

outbank or shoreline at a time. When treating outbank or shoreline weeds, do not overlap, cover more than a one foot average.

When treating irrigation or drainage system outbanks, do not divert treated water for domestic, stock or irrigation purposes closer than 100 feet below treated outbank area.

Do not spray cross stream with boom or hand gun. Do not allow treated water to graze treated area for 30 days after treatment.

Do not fish treated water.

Do not make direct treatments to moving bodies of natural water such as streams or rivers.

Do not use treated water from non flowing bodies of water for irrigation, livestock or domestic purposes for 30 days after treatment.

Do not spray on or around bird houses or colonies where birds are found.

When small ponds or other impounded water is treated with Roundup, do not treat the entire area. Treat the area in strips or quarters to avoid oxygen depletion and possible fish kill. Delay treatment of remaining areas for 30 days.

BOOM EQUIPMENT

For control of annual or perennial weeds, using conventional boom equipment — use the recommended rates of Roundup and volumes of water shown in the "Weeds Controlled" section of this label.

HAND CUP AND HIGH VOLUME EQUIPMENT

Use coarse sprays only. For control of weeds using high volume spraying equipment utilizing hand guns or other similar nozzle arrangements — use 4 to 6 quarts of this product in 100 gallons of clean water and apply to foliage of vegetation to be controlled.

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(1977-78)

ROUNDUP

HERBICIDE BY

Monsanto

For experimental use only on IRRIGATION SYSTEMS, DRAINAGE SYSTEMS AND SMALL WATER IMPOUNDMENTS such as Farm Ponds.

EPA Experimental Use Permit No. 524-EUP-29

Not for sale to any person other than a participant or contractor of the EPA approved Experimental Use Program

Water soluble herbicide for evaluation of non-selective weed control. AVOID CONTACT WITH FOLIAGE, GREEN STEMS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

CAUTIONARY STATEMENTS

Hazard to Humans
Keep out of children.
Keep out of contact with children.
Keep out of contact with clothing.
If contact, immediately flush with water for at least 15 minutes. Wash skin with water. Wash eyes.

Read the entire label
Use only according to label instructions
Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened

ACTIVE INGREDIENT:
Glycophosphate salt of Glyphosate 41.0%
INERT INGREDIENTS: 59.0%
100.0%

4.0 to 6.0 grams per liter or 4 pounds of the active ingredient (glyphosate salt of N-(phosphonomethyl) glycine per U.S. gallon. Equivalent to 350 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate

NET 1 U.S. GAL.

MONSANTO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MISSOURI 63165 U.S.A. EPA Est. 9538 1A 1

Clean sprayer and parts immediately after using this product by thoroughly flushing with water. Do not contaminate water by disposal of wastes or cleaning of equipment.

MIXING AND APPLICATION INSTRUCTIONS

This herbicide mixes readily with water. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES. For ground or industrial type sprayers fill the spray tank with one half the required amount of water. Add the proper amount of herbicide (See "Directions for Use" and "Weeds Controlled" sections of this label) and mix well before adding the remaining portion of water. Filling the mixing hose below the surface of the liquid solution will prevent excessive foaming. Drawing hose from tank immediately will avoid sucking into water source. Use of mechanical agitators may cause excessive foaming. By-pass lines should terminate at the bottom of the tank. For each pump or power equipment, use 30 mesh nozzle and fine stream.

When the concentration of Roundup in the spray will be less than 1 percent (1 g/gal. Roundup per 100 gallons of water) the addition of 1 quart of surfactant per 100 gallons of spray volume may improve performance.

For use in backpack sprayers it is suggested that the proper amount of Roundup be mixed with water in a larger container. Fill sprayer with the mixed solution.

APPLY IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY UNDER WIND OR OTHER CONDITIONS WHICH AID DRY TO OCCUR. HAND GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS.

Storage and Disposal
SIGHT ABOVE 10 °F TO PREVENT FREEZING
Freezing will result in crystals which settle to the bottom of the can. If allowed to freeze, place in a warm room (72 °F) and let crystals settle. The can frequently for several days to redissolve.
Avoid contamination of soil, feed and feedstuffs.
Do not reuse container, destroy when empty.

LIMIT OF WARRANTY AND LIABILITY
This company warrants that its chemical conforms to the chemical description on the label and is useable for the purposes referred to in the directions for use. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY IS MADE. The exclusive liability of the user or buyer, and the limit of the liability of this company or any other seller for any and all losses, injuries or damages resulting from the use or handling of this product shall be replacement of the quantity of this product purchased. The buyer and all users are deemed to have accepted the terms of this notice which may not be varied by any verbal or written agreement.

GENERAL INFORMATION

Roundup, a water soluble liquid, mixes readily with water to be applied as a foliage spray for the control or destruction of most herbaceous plants.

Roundup moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days but on most perennial weeds may not occur until 7 to 10 days. Extremely cool or cloudy weather at treatment time may slow down activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the leaves which leads to complete breaking of above ground growth and deterioration of underground plant parts.

WEEDS CONTROLLED

Roundup controls many annual and perennial grasses and broadleaf weeds.

CONTROL OF ANNUAL WEEDS

Apply 1 to 2 1/2 quarts of this product in 10 to 100 100 gallons of water per acre to actively growing grasses and broadleaf weeds.

Annual weeds generally will continue to germinate from seed throughout the growing season. Repeat treatments may be necessary to control later germinating weeds.

CONTROL OF PERENNIAL WEEDS

Apply 2 to 6 quarts of this product in 10 to 100 gallons of water per acre. Apply when weeds are actively growing early in the season or early bud stage.

NOTE: Repeat treatments may be necessary to control weeds regrowing from underground parts or seeds.

DIRECTIONS FOR USE

Consult Local State Fish and Game Agency before applying this product to game waters. Feathers may be returned to host birds.

For control of undesirable vegetation along irrigation systems, drainage systems, shorelines of impoundments used for irrigation and small farm ponds.

SPRAYING INSTRUCTIONS Apply this product at rates and volumes shown on the "Weeds Controlled" section of this label. Apply in 4 gallon spray equipment, hand gun or hand gun mounted on a truck, tractor or boat.

When spraying avoid combinations of pressure and nozzle type that will result in fine particles (mist) which are more likely to drift. Apply only while backing system to avoid drift. Avoid concentration of the product in water. Spray only one side of the

Only application with equipment that changes the stages described for control of weeds. Apply under the "Weeds Controlled" section of this label to provide adequate leaf surface to receive spray. Unopened parts of containers should be stored in cool, dry place. Do not store in areas affected by the spray and a second application. This reason best control of most weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product if growth is heavy or dense or if weeds are in early growth stages such as drift.

Repeat spraying within 4 hours after application may reduce effect. Repeat spraying within 24 hours after application may wash the effect. The cleanup and a repeat treatment may be necessary.

ATTENTION

AVOID DRIFT. EXTREME CARE MUST BE TAKEN WHEN APPLYING THIS PRODUCT TO PREVENT AVOIDING DESIRABLE PLANTS AND CROPS. Foliage spray mist to drift onto crops or desirable plants may cause severe damage or death. Do not spray crops or desirable plants on or near treated areas. Do not spray areas where drift may occur. Do not spray areas where drift may occur. Do not spray areas where drift may occur. Do not spray areas where drift may occur.

The use of EPA/EPA approved drift control may be useful in reducing drift hazards.

NOTE: Use of this product in any manner not consistent with this label may result in personal injuries or crop or other plant damage. Keep container closed to prevent spills and contamination.

onshore or offshore at a time when drift could be a problem. Do not spray more than one acre per average.

When breaking irrigation or drainage system banks do not direct treated water for drift to block or irrigation canals. Flow water into block treated ditchbank area.

Do not spray cross streams with boom or hand gun. Do not allow backflow to treat treated area for 30 days after treatment.

Do not make direct treatments to water bodies or other water sources. Do not spray directly into water bodies or other water sources.

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BOOM EQUIPMENT

For control of annual or perennial weeds along irrigation or drainage systems, shorelines of impoundments used for irrigation and small farm ponds.

HAND GUN AND MOUNTED EQUIPMENT

For control of weeds along irrigation or drainage systems, shorelines of impoundments used for irrigation and small farm ponds.

1978A 53-8-1-20