

Reg # 407-430

PM-23

File

1910



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 6 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Gene R. Currie
IMPERIAL INC.
P. O. Box 98
Shenandoah, IA 51601

Subject: Label Amendment Submission of 02/11/94 in Response to PR Notice 93-7
EPA Reg. No. 407-430
2,4-D 380 AMINE WEED KILLER

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable
Printed with Soy/Canola Ink on paper that
contains at least 50% recycled fiber

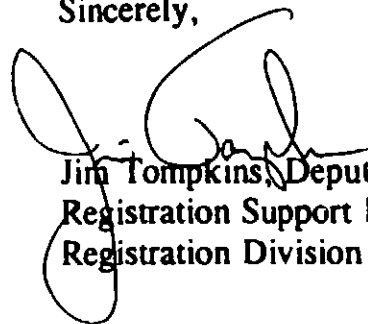
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

Attachment

IMPERIAL INC.

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2,4-D
380 AMINE
WEED KILLER

ACTIVE INGREDIENT:

Dimethylamine Salt of 2,4-Dichlorophenoxyacetic acid 47.3%

INERT INGREDIENTS: 52.7%

Total 100.0%

*Isomer Specific by AOAC Method No. 6.275 13th Edition 1980
*2,4-Dichlorophenoxyacetic acid equivalent ... 39.3%
Contains 3.8 lbs. 2,4-Dichlorophenoxyacetic acid per gallon

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).

SEE SIDE PANELS FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No. 407-430
EPA Est. No. 407 IA-15, 407 MN 1A
Superscript used corresponds to
letter in lot number

W005 00

ACCEPTED
with COMMENTS
In EPA Letter Dated

NET CONTENTS:

Manufactured By:
IMPERIAL INC.
Shenandoah, IA 51601

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
407-430

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER

Corrosive, causes eye damage. Do not get in eyes. Harmful if absorbed through skin. Avoid contact with skin. In case of contact, flush eyes or skin with plenty of water for at least 15 minutes. For eyes, call a physician. Get medical attention if skin irritation persists. Harmful if swallowed. If swallowed, induce vomiting immediately by giving 2 glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Seek medical attention.

Personal Protective Equipment:

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Applicators and other handlers must wear:

- Coveralls over short sleeved shirt and short pants.
- Waterproof gloves.
- Chemical resistant footwear and socks.
- Protective eyewear.
- Chemical resistant headgear for overhead exposure.
- Chemical resistant apron when cleaning equipment, mixing, or loading.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Follow manufacturer's instructions for cleaning or maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

Engineering controls statement: (~~LESS THAN 5 GALLON STATEMENT~~)

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.

(5 GALLON OR MORE STATEMENT)

A mechanical system (pump and probe) must be used in transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water except as specified on this label. Do not contaminate water when disposing of equipment washwaters.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

DON'T OVERDOSE! Follow directions carefully. Do not let spray drift to sensitive plants such as vegetables, legumes, grapes, flowers or other 2,4-D susceptible plants. Use coarse spray to reduce "wind drift". Local spray conditions will vary. Check local recommendations first. Use separate spray equipment for insecticides and fungicides. Do not make aerial application near cotton or sensitive plants. Under certain high temperature conditions, vapors from this product will injure nearby susceptible plants.

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DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box apply only 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 48 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.
- Shoes plus socks.
- Protective eyewear.

STORAGE AND DISPOSAL

STORAGE: Store in a secure area, in original container only, away from fertilizers, food, or feed. Do not store near insecticides or fungicides.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Do not contaminate water, food, or feed by storage or disposal.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

When stored at temperatures below freezing, it may be necessary to warm contents to 70 degrees Fahrenheit and mix thoroughly before using.

This product will control the listed plants and other 2,4-D susceptible species: Alligatorweed, tall and devil's beggarticks, blueweed (Texas), boxelder, broomweed, buckbrush, buckhorn plantain, burdock, burhead, buttercup, carpetweed, catnip, chamise, chickweed, chicory, cocklebur, coffeeweed, common mullein, cornflower, coyotebrush, croton, curly indigo, dandelion, docks, dog fennel, common duckweed, elderberry, annual fleabane, fanweed, galinsoga, wild garlic, goatsbeard, goldenrod, halogeton, hemp, henbit, jewelweed, jimsonweed, lambsquarters, locoweed, mallow (Venice), manzanita, marshelder, milkvetch, climbing milkweed, morning glory (annual), nettles, onion (wild), Parrot feather, pennygrass, pepperweed (field), redroot and smooth pigweed, plantain, poorjoe, poison ivy, pokeweed, prickly lettuce, puncturevine, common purslane, rabbitbrush, radish (wild), ragweed (common and giant), rape (wild), redstem, rush, sagebrush (costal, big, sand), salsify, sand shimmery oak, sheep sorrel, shepherdspurse, sicklepod, sneezeweed (bitter), sowthistle (annual),

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Spanishneedles, stinkweed, sunflower, unflower, sweetclover, tan mustard, tansy ragwort, tumbleweed, velvetleaf, Virginia creeper, waterhyacinth, waterlily, waterprimrose, willow, wild sweet potato, witchweed, wormwood, yellow rocket, yellow starthistle.

Partial control can be expected on the following less susceptible species: artichoke, bindweeds (hedge, field, and European), buckwheat (wild), creeping jenny, ground ivy, kochia, nutgrass, smartweed, thistle (bull, Canadian, musk and Russian). Deep-rooted perennials such as Canadian thistle and field bindweed and woody plants may require repeat applications.

Apply when weather is warm and plants are rapidly growing. Cold weather or dry conditions may cause poor results. DO NOT apply if rain is expected within 6 to 8 hours. Consult your Extension Service or Agricultural Experiment Station for local use and crop tolerance situations.

This product may be applied as a water based spray. Use coarse sprays to minimize drift. DO NOT apply where spray may come in contact with any desirable plants or susceptible crops other than those listed on this label.

DO NOT apply this product through any type of irrigation system.

When using ground equipment, keep boom or nozzles close to crop, apply 3 or more gallons of spray per acre using flooding or flat fan nozzles with 20 pounds or less of pressure. If wind exceeds 7 miles per hour, spraying should stop. DO NOT apply with hollow cone or any other mist producing nozzle.

When using aerial equipment, apply a minimum of 3 to 5 gallons of spray per acre at 20 pounds or less nozzle pressure using nozzles that produce a coarse spray pattern. Spray only when wind is blowing less than 5 miles per hour.

Apply the recommended amount of 2,4-D per acre regardless of the amount of diluent used.

Application by any means should take place only when there is no danger of spray drift. Do not apply near cotton, grapes, tomatoes, or other 2,4-D susceptible crops or vegetables. Do not apply when the wind is blowing toward these crops or plants.

MIXING INSTRUCTIONS:

Water-Based Spray: Fill the equipment half full of water, agitate while adding this product, then add rest of water.

NITROGEN FERTILIZER: The compatibility of this product must be tested with the fertilizer before its use in application equipment. This is done by means of a quart jar test as follows: The amount of this product to add to 1 pint of liquid nitrogen fertilizer is determined by using this table --

| AMOUNT OF 2,4-D PER ACRE | GALLONS OF FERTILIZER PER ACRE | | | | |
|--------------------------------|--------------------------------|-----|-------|-----|-----|
| | 10 | 20 | 30 | 40 | 50 |
| 1/2 pint | 2/3 | 1/2 | 1/3 | 1/4 | 1/8 |
| 1 pint | 1-1/4 | 1 | 3/4 | 1/2 | 1/4 |
| 2 pints | 2-1/2 | 2 | 1-1/2 | 1 | 1/2 |
| 4 pints | 5 | 4 | 3 | 2 | 1 |

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The amount in the table is based on gallons of finished spray per acre. Different spray volumes will require appropriate changes in the amount of this product added to 1 pint of fertilizer. Add the required amount of this product to 1 pint of fertilizer in a quart jar and shake to mix well. Let the mixture stand and examine it after 5 minutes and again after 30 minutes. The product is incompatible if it balls up, forms flakes, sludges, gels, oily films, layers, or other precipitates. If the precipitate can be suspended with agitation the combination can be used if the equipment has vigorous agitation throughout mixing and spraying operations.

In some cases, when incompatibility occurs, the addition of 1/4 teaspoon of a compatibility agent to the jar before adding this product may solve the problem (1/4 teaspoon is equal to 2 pints per 100 gallons of fertilizer). IF THIS DOES NOT WORK, DO NOT ATTEMPT THE ADDITION OF THIS PRODUCT TO THE FERTILIZER.

Fertilizer Mixing Sequence: If a compatibility agent is not required, add half the fertilizer to the tank, make a premix of 1 part this product and 4 parts water and add premix to tank with agitation ON. Then add balance of fertilizer. Apply at once with agitation ON. If a compatibility agent is required, add it to half-full tank before premix addition. Then proceed as above. MAKE SURE TO FOLLOW ALL DIRECTIONS ON THIS AND THE FERTILIZER AND COMPATIBILITY AGENT LABELING.

CORN: Use the lower rate for small annual weeds. Use the higher rate for perennial or hard-to-kill weeds. To avoid injury, do not use with atrazine, oil, or other adjuvants.

Preemergence: Apply 2 to 3 quarts per acre after planting but before corn emerges. Do not apply to sandy soils.

Emergence: Apply 1/2 to 1 pint per acre just as corn plants are breaking ground.

Postemergence: Apply 1/2 to 1 pint per acre after corn is up. If corn is over 8 inches tall, use drop nozzles to keep spray off corn foliage as much as possible. One to 1 1/2 pints per acre may be needed to control some weeds, but this rate may injure the corn. DO NOT apply from 2 weeks before tasseling to dough stage. DO NOT apply to open whorls. High moisture and temperature conditions may cause injury or brittleness. DO NOT cultivate for a week to 10 days after treatment.

Late Season Weed Control (To reduce weeds that interfere with harvest and reduce weed seed production): After silks are completely brown, apply 1 to 2 pints per acre.

SMALL GRAINS (Not underseeded with a legume): NOTE: Do not let dairy animals or animals being finished for slaughter forage or graze treated fields within 2 weeks after treatment. Use the lower dose rate for small annual or biennial weeds. Use the higher dose rate for perennial or hard-to-kill weeds.

Spring Wheat, Barley, and Rye: Apply 2/3 to 1 1/3 pint per acre when grain is in full tiller stage (4 to 8 inches high), but before boot stage when weeds are small and actively growing. Two to 3 pints per acre may be used to control difficult weed problems, but do not use unless some crop damage is acceptable.

Winter Wheat and Rye: Apply 1 to 1 1/3 pints per acre only in spring before grain is in boot stage.

Spring-seeded Oats: Apply 1/2 to 1 pint per acre at full tiller, but before early boot stage.

Fall-seeded Oats Grown for Grain (Southern): Apply 1 to 1 1/2 pints per acre at full tiller, but before early boot stage. Difficult weeds may require higher rate, but some injury may occur since oats are less tolerant to 2,4-D than wheat or barley. **DO NOT** spray during or just after cold weather.

Preharvest Treatment: Apply 1 1/2 to 2 pints per acre when grain is in hard dough stage to control weeds that will interfere with harvest. Apply when soil moisture is adequate for weed growth for best results.

NOTE: **DO NOT** feed treated straw to livestock.

MILO (GRAIN SORGHUM): **NOTE:** Some varieties and hybrids are 2,4-D sensitive. Crop injury may also be increased by high moisture and temperature conditions. Check with your seed company and Extension Service for advice. Apply 1 pint per acre when plants are 5 to 15 inches tall. A higher rate of 1 1/2 pints per acre may be needed for some weeds, but chances of crop injury may increase. **DO NOT** use oil. **DO NOT** treat crop less than 5 inches tall or from boot to early dough stage. Use drop nozzles when crop is over 8 inches tall.

CONSERVATION RESERVE PROGRAMS AND SET-ASIDE ACRES: **DO NOT** use on alfalfa, clover, other legumes, or newly seeded pastures.

Broadleaf Weeds: Apply 1 to 2 quarts per acre in sufficient water for good coverage. Deep-rooted perennial weeds may require a higher rate or repeated treatments.

Brush: Apply 4 quarts in 5 to 10 gallons of water plus the labeled amount of a crop oil concentrate or other adjuvant per acre for Buckbrush, Rabbitbrush, Sagebrush, Coyotebrush and other Chaparral Species. Apply 4 quarts in 4 gallons of water plus the proper amount of a crop oil concentrate or other adjuvant per acre for Sand Shinnery Oak.

FOR SET-ASIDE ACRES: Once the Agricultural Stabilization Conservation Services has released set-aside acres for grazing, do not allow dairy animals or animals being finished for slaughter to forage or graze treated fields within 7 days of application. A 30-day preharvest interval for grass cut for hay and a 3-day interval for slaughter of meat animals is necessary after treatment. **DO NOT** feed treated straw to livestock.

FOR CONSERVATION RESERVE PROGRAMS: Do not harvest or graze at any time.

PASTURES AND RANGE LAND: **NOTE:** **DO NOT** apply after heads form or when grass is in boot to milk stage when a seed crop is desired. **DO NOT** use on alfalfa, clover, other legumes, or newly seeded pastures. **DO NOT** allow dairy animals to graze treated areas within 7 days of application. A 30-DAY preharvest interval for grass cut for hay is necessary. **DO NOT** slaughter meat animal within 3 days of application.

Broadleaf Weeds: Apply 1 to 2 quarts per acre in sufficient water for good coverage. Deep-rooted perennial weeds may require a higher rate or repeated treatments.

Brush: Apply 4 quarts in 5 to 10 gallons of water plus the labeled amount of a crop oil concentrate or other adjuvant per acre for Buckbrush, Rabbitbrush, Sagebrush, Coyotebrush and other Chaparral Species. Apply 4 quarts in 4 gallons of water plus the proper amount of a crop oil concentrate or other adjuvant per acre for Sand Shinnery Oak.

ESTABLISHED GRASSES (Seed Production): Apply 1 to 4 pints in sufficient water needed for uniform application (see application section). Apply to established stands in spring from tiller to early boot stage. Do not spray from early boot to milk stage. New spring seedlings can be treated with the lower rate after grasses have at least 5 leaves. Perennial weed regrowth can be treated in the fall.

DO NOT use on bentgrass unless injury can be tolerated. For best results, apply when soil moisture is adequate for good growth. Do not graze dairy animals or cut forage for hay within 7 days of application.

FALLOW LAND: Apply 1 to 2 quarts for established annual broadleaf weeds and 2 to 4 quarts for suppression of established perennial weeds such as Canada thistle and field bindweed. Apply when weeds are actually growing. DO NOT plant any crop for 3 months or until this product has disappeared from soil. Consult your Weed Control Specialist for information on local conditions.

NON-CROP AREAS: To control plants susceptible to 2,4-D in drainage ditchbanks, fencerows, roadsides, and rights-of-way, apply 4 quarts for woody plants or 1 quart for broadleaf weeds in 100 gallons of water. Oils or adjuvants may be added to increase effectiveness. Spray woody plants to run-off when fully leafed out and growing. Avoid spraying when plants are not actively growing such as mid-summer. Reseeding the treated areas should be delayed until the following season. Deep-rooted perennials may require repeated treatments.

SPOT TREATMENT: For weeds in non-crop areas, use 6 ounces in 3 gallons of water, mix thoroughly, and spray to run-off. This high dosage rate may only be used where injury can be tolerated.

WEEDS AND BRUSH ON IRRIGATION CANAL DITCHBANKS: Seventeen Western States: Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Nevada, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming.

For control of annual and perennial broadleaf weeds, apply 1 to 2 quarts of product per acre in approximately 20 to 100 gallons of total spray. Treat when weeds are young and actively growing before the bud or early bloom stage. For harder to control weeds, a repeat spray may be needed after 3 to 4 weeks for maximum results, using the same rates.

Apply no more than 2 treatments per season. For woody brush and patches of perennial broadleaf weeds, mix 1 gallon of product in 150 gallons of water. Wet foliage thoroughly, using approximately 1 gallon of spray solution per square rod.

SPRAYING INSTRUCTIONS: Low pressure (10 to 40 psi) power spray equipment should be used and mounted on a truck, tractor, or boat. Apply while traveling upstream to avoid accidental concentration of chemical into water. Spray when the air is calm, 5 mph or less. Do not use on small canals (less than 10 CFS) where water will be used for drinking purposes. Boom spraying onto water surface must be held to a minimum and no cross-stream spraying to opposite banks should be permitted. When spraying shoreline weeds, allow no more than 2-foot overspray onto water with an average of less than 1-foot overspray to prevent introduction of greater than negligible amounts of chemical into the water.

Do not allow dairy animals to graze on treated areas for at least 7 days after spraying. Water within treated banks should not be fished.

FOR AQUATIC WEEDS IN LAKES, PONDS, DRAINAGE DITCHES, AND MARSHES: Use 1 1/2 to 4 1/2 pints of product in 50 to 100 gallons of water per acre. Spray to wet foliage thoroughly. Application should be made when leaves are fully developed, above water line, and plants are actively growing. Your State Conservation Department or Game and Fish Commission may require permits for aquatic applications. Check with appropriate agencies.

DO NOT apply to more than 1/3 to 1/2 of a lake or pond in any 1 month because excessive decaying vegetation may deplete oxygen content of water and kill fish.

Do not contaminate water for irrigation or domestic purposes except as indicated in directions for use on irrigation ditchbanks.

NOTICE OF WARRANTY: Buyer assumes all risk of use, storage, or handling of this product when not in strict accordance with directions given herewith.

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