**Active Ingredient:**
DCPA (dimethyl tetrachloroterephthalate) ................................................................. 54.9%

**Inert Ingredients:**
45.1%

Total ................................................. 100.0%

Contains 6 lbs. DCPA per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**FIRST AID**

If in eyes • Hold eye open and rinse slowly and gently with water for 15-20 minutes.
• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
• Call a poison control center or doctor for treatment advice.

If inhaled • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
• If you are not sure whether the person has stopped breathing, call a poison control center or doctor for further treatment advice.

If on skin or clothing • Take off contaminated clothing.
• Rinse skin immediately with plenty of water for 15-20 minutes.
• Call a poison control center or doctor for further treatment advice.

If swallowed • Have person sip a glass of water if able to swallow.
• Do not induce vomiting unless told to do so by the poison control center or doctor.
• Do not give anything by mouth to an unconscious person.

**EMERGENCY INFORMATION**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**For the following emergencies, phone 24 hours a day:**

For Medical Emergencies phone: 1-888-681-4261
For Transportation Emergencies, including spill, leak or fire, phone: CHEMREC....1-800-424-9300
For Product Use Information phone: AMVAC..........................1-888-462-6822

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

**See inside booklet for additional precautionary statements, storage & disposal and directions for handling.**
PERSONAL PROTECTIVE EQUIPMENT (PPE): Applicants and other handlers must wear:
- Long-sleeved shirt and long pants,
- Chemical-resistant gloves made of any waterproof material,
- Shoes plus socks.
- A dust/mist respirator (N95/NIOSH-approval number prefix TC-21C) or a N95/NIOSH approved respirator with any N, R, P, or HE filter.
Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions are available, wash, dry and do not store. Wash and keep PPE separate from other laundry.

Engineering Controls: When handlers use closed systems, enclosed cabins, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 200.240 (a) (4) (E)), the handler PPE requirements may be reduced or modified as specified in the WPS.

ENVIROMENTAL HAZARDS
DO NOT apply directly to water, 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 wastewater.

Groundwater Advisory: Tetrachloroethylene is a breakdown product of DACTHAL FLOWABLE which is known to leach through soil as a result of agricultural and turf uses and has been found in groundwater which may be used for drinking water. Users are advised not to apply DACTHAL FLOWABLE to sandy or loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable; i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater used for drinking water.

Surface Water Advisory: DCP can contaminate surface water through spray drift. Under some conditions, DCP may also have a high potential to contaminate surface water through runoff (via both dissolution in runoff water and adsorption to eroding soil) for several weeks post-application. Users are advised not to apply DACTHAL FLOWABLE to poorly draining or wet soils. Use treated water only when a rapid run-off, such as from irrigation or rain, is expected. Use treated water on plants that will be fed or grazed by livestock. Spray only on still days.

AERIAL DRIFT REDUCTION ADVISORY:
The most effective way to reduce drift potential is to apply large droplets. The following guidelines for application height and nozzle specifications are essential.

APPLICATION HEIGHT

1. The distance of the outer-most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

3. Use the minimum number of nozzles that provide uniform coverage.

4. The most effective way to reduce drift potential is to apply large droplets. The droplet size can be increased by decreasing pressure, increasing flow rate, or using a higher flow rate nozzles instead of increasing pressure.

5. The lowest height that is safe reduces exposure of droplets to evaporation and wind.

PREPARATION AND APPLICATION OF THE SPRAY:
To allow crabgrass control without injury to the new turf. Rates of application can be reduced by banding. See Conversion Chart.

AERIAL DRIFT REDUCTION ADVISORY:
The most effective way to reduce drift potential is to apply large droplets. The following guidelines for application height and nozzle specifications are essential.

APPLICATION HEIGHT

1. The distance of the outer-most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

3. Use the minimum number of nozzles that provide uniform coverage.

4. The most effective way to reduce drift potential is to apply large droplets. The droplet size can be increased by decreasing pressure, increasing flow rate, or using a higher flow rate nozzles instead of increasing pressure.

5. The lowest height that is safe reduces exposure of droplets to evaporation and wind.
Preparation of Groundwater Advisory:

ENVIRONMENTAL HAZARDS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR

Follow manufacturer’s instructions for cleaning/maintaining PP

found in groundwater which may be used for drinking water. Users are advised not to apply DACTHAL FLOWABLE to sand and loamy sand soils where the water table (groundwater) is

Normally, water must be applied within 3 to 5 days of application if sufficient rainfall does not occur. However, when surface soil is dry but subsurface soil contains enough moisture to

per acre, depending on equipment and local practices. Adequate agitation should be maintained during filling and spraying to keep material in uniform suspension. Use nozzles suitable for

with mechanical or bypass agitation. Mixture can then be pumped into the aircraft. Screens on mixing tanks should be no finer than 50 mesh. Adequate agitation should be maintained

• Shoes plus socks

emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal

soil, or water, is:

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,

Uncertainties

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors including droplet size and equipment type det

Wind

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift wi

Layby Incorporation:

Incorporate DACTHAL FLOWABLE by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the

smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly

disperses indicates good vertical air mixing.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

DIY apply when wind speed favors drift beyond the area intended for treatment.

Soil Preparation: Prior to making application, the soil should be cultivated to provide a weed-free and uniform surface such as DACTHAL FLOWABLE herbicide is effective only when applied before weed seed germination occurs. Unless incorporated, DACTHAL FLOWABLE should be applied within two to three days following cultivation, to prevent suburface germinating weeds from becoming established. When cultivating between rows, use shovels on cultivator to prevent untreated soil from covering treated bands. Cultural practices, such as burning crop beds, should be completed prior to DACTHAL FLOWABLE application in order to avoid rewetting untreated soil in the bottom of the furrow and concentrating the sprayed soil within the

Soil Incorporation: DO NOT incorporate deeper than 2 inches. Shallow soil incorporation, when recommended (see specific crop recommendation), often gives more consistent results. Depending on crop and time of application, several incorporation methods may be used.

Preplant Incorporation. This type of incorporation often provides better weed control on cultivated land, and also on non-cultivated land when dry weather is anticipated following planting. When recommended, DACTHAL FLOWABLE can be sprayed on the soil surface and then incorporated into the soil using a disc harrow or related tillage equipment. To insure complete incorporation, double disc in two directions. For incorporating banded treatments, header-powdered grain tillers or ground tillers are essential.

Delayed Promergent Incorporation: For crops where preplant incorporation can be used (see specific crop recommendation). Incorporation at this time should be used when adequate rainfall or irrigation is not available within 3 to 5 days after planting. Lightly incorporate (to 1 inch deep) with drag harrow, rotary hoe or other suitable tillage equipment.

Lady Incorporation: Last prior to stage when plant growth would prevent further cultivation). Cultivate soil to remove established weeds. Apply DACTHAL FLOWABLE over top of foliage and lightly incorporate with suitable equipment.

agencies concerning requirements before making applications. Avoid spray drift to adjacent fields; particular care should be exerted when adjacent fields contain edible crops or those that will be fed or grazed by livestock. Spray only on still days.

Aerial Drift Reduction Advisory: Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making aerial application decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial operations to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer-most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

2. Nozzles must always point beamwise parallel with the air stream and never be painted downwards more than 45 degrees.

INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control.

Applying larger droplets reduces drift potential, but will not prevent drift if applications are made (irreproducible), or under unfavorable environmental conditions (see Wind, Temperature, and Humidity, and Temperature Inversion).

CONTROLLING DROPLET SIZE

Volume: Use low flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flow produce larger droplets.

Pressure: Do not exceed the nozzle manufacturer’s recommended pressures. For many nozzle types lower pressure promotes larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles: Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation: Directing nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice.

Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type: Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH: For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crossover, the swath will be displaced downstream. Therefore, on the upwind and downstream edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upward. Swath adjustment distances should increase, with increasing drift potential (higher wind, smaller droplets, etc.)

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most aware when conditions are both hot and dry.

Temperature Inversion

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog, however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that lingers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly disperses indicates good vertical air mixing.

Soil Type

Organic Matter % Broadcast Rate of DACTHAL FLOWABLE/A

Light-sand or sandy loam 0-3 6-8 pints

Medium-sand 0-6 8-10 pints

Heavy soil 6-9 10-12 pints

Soil Type

ACTHAL FLOWABLE is recommended at rates of 6-14 pints/A depending on soil type and weeds to be controlled. The following table

Orchards, Golf Courses, Parks, Sod Farms, and Institutional Areas where turf is grown):

Lavendercotton

Lily

Lilac

Gum

Oak

Willow

Wormwood

Violet, African

Sundrops

Lavendercotton

Lily

Lilac

Gum

Oak

Willow

Wormwood

Violet, African

Sundrops

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Preparation

Close to the surface and where these soils are very permeable, i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the amount of moisture required. A minimum of one-third to one-half inch of water, either as rain or irrigation, is necessary to adequately moisten the upper 2 inches of soil. Do not plant if the soil temperature at this depth is below 50°F. Rainfall or irrigation is not available within 3 to 5 days after planting. Lightly incorporate (to 1 inch deep) with a drag harrow or similar equipment. For crops where preplant incorporation can be used (see specific crop recommendation). Incorporation at this time should be used when adequate moisture and temperature are between 65° and 90°F. In order to control annual bluegrass (Poa annua), crabgrass (Digitaria sanguinalis) and other weeds as stated on the label, irrigation or rainfall must occur within 4 hours of the application. Staining or discoloration of turfgrass and other vegetation, including lawns, ornamental plants, and trees, is to be expected and will be noticed first by a gradual loss of color and vigor. Use with care as stated on the label.

Soil Type
Organic-Matter %

Broadcast Rate of DACTHAL FLOWABLE, A

Lignite or sandy loam
0-3
0-5)

Meadowlark loam
0-3
9-10 pts.

Heavy clay loam
0-3
10-12 pts.

Heavy clay loam
3-5
12-14 pts.

Weed Control Spectrum

DACTHAL FLOWABLE is a preemergence herbicide which provides effective control of annual grasses and certain broadleaf weeds. The following weeds are grouped according to their susceptibility to DACTHAL FLOWABLE:

Susceptible Weeds

Controlled at Lower Recommended Rates for Each Soil Type

Carpetweed
Lowgrass
Chickweed, Common
Nalle, Bunting
Cowslip, Large
Parsley, Field
Driftage, Smooth
Purslane
Foxtail, Green
Peachy, Florida
Foxtail, Yellow
White Cresses
Lambquarters, Common

Moderately Susceptible Weeds

Highest Recommended Rates for Each Soil Type Required for Effective Control

Bermudagrass
Groundcherry
Bluegrass, Annual
Johnsongrass from seed
Cheeseweed (Malva parviflora)
Knotweed, Persian
Copperleaf, Rhombic
Nightshade, Black
Copperleaf, Virginia
Pennycress, Brown Top
(Three-seeded Mercury)
Pigweed, Redroot

Oxalis
Sandbur

Deadnettle, Purple
Spurge, Holding

Deadnettle, Spotted
Spurge, Prickly

Gossegrass
Spurge, Spotted

Difficult to Control Weeds

Commercially acceptable control of the following weeds may not always be obtained but weed populations will be suppressed when applied at the maximum labeled rate, thus resulting in less competition with the emerging and growing crop.

Birdsfoot, Wild
Panicum, Fall
Cenizo, Littleseed
Panicum, Texas
Dock, Curly (from seed)
Polygala, Redroot
Foxtail, Giant
Roe’set, London
Grosshoffer, Nodding
Shepherdspurse
Herbicide
Sowthistle, Annual
Knapweed, Shiksha
Vasegrass
Lambden
Witchweed

Weeds Not Controlled with DACTHAL FLOWABLE

Galinsoga
Nutsedge

Ilex, Common
Regalweed

Johnsongrass (from rhizomes)
Smartweed

Marestail

Replanting: Replanting crops other than those included on this label in DACTHAL FLOWABLE treated soil within 8 months of application may result in crop injury. If replanting is required because of an early crop failure, the planting of onions, seeded cucurbits, potatoes, tomatoes, eggplants, or peppers at this time may result in crop injury. However, all crops on this label may be planted following harvest of a DACTHAL FLOWABLE treated crop.

Ornamental Turf (such as Lawns (non-residential), Golf Courses, Cemeteries, Athletic Fields, Parks, Sewer Farms, and Institutional Areas where turf is grown). Application at the rate of 14 lbs. of DACTHAL FLOWABLE in 40 to 150 gallons of water per acre (1/2 pt./3 to 7 gal./3,000 sq. ft.) gives excellent control of crabgrass and other weeds as listed on this label. In California, DACTHAL FLOWABLE applications to turf should be watered within 4 hours with 0.1 to 0.2 inches of water to ensure penetration. One application applied in early spring before weed germination usually provides seasonal control. Crabgrass weed germination usually coincides with the time when Panicum cutleaf grasses start to fail. In areas which commonly experience a crop of late-germinating crabgrass and other annual weeds grasses, a second application at half the regular rate can be safely made two months after the first application. In order to control annual bluegrass (Poa annua) and other annual or late-germinating grasses and weeds in northern states, a late summer or early fall application before weed weed germination of 10 quarts of DACTHAL FLOWABLE in 40 to 100 gallons of water per acre (1/2 pt./3 to 7 gal./3,000 sq. ft.) should supplement the early spring application. Earlier applications are required in southern United States. Consult agricultural experiment station or extension service weed specialist for date Poa annua weed germinates in your area and make application at least two weeks prior to this date.

Approved as is
DACTHAL FLOWABLE HERBICIDE

Preparation and Application of

Groundwater Advisory:

• Shoes plus socks, close to the surface and where these soils are very permeable, i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Read entire label carefully and use only as directed.

170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

per acre, depending on equipment and local practices. Adequate agitation should be maintained during filling and spraying to keep material in uniform suspension. Use nozzles suitable for to prevent clogging. It is essential that the sprayer be properly calibrated before making applications. Standard low-pressure (30-50 psi) boom-type sprayers are recommended.

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR pa

treated soil within 8 months of application may resul

DACTHAL FLOWABLE is recommended at rates of 6-14 pints/A depending on soil type and weeds to be controlled. T

Earlier applications are required in southern states to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during

IMPORTANT: After DACTHAL FLOWABLE treatment, new applications may require 60 days before any new seeding is undertaken. DO NOT use on Dichondra. See recommendations on bermside before using on this species.

Nursery Stocks: DACTHAL FLOWABLE can be applied to a wide range of nursery stock at the rate of 7 to 8 lbs per 300 gallons of water per acre of area treated (3 pints in 3 to 7 gallons of water per 1,000 sq. ft.). Applications should be made to soil recently cultivated to a uniform texture. These can be made immediately following bring-out of stock. With established plantings, application should be made following proper cultivation to remove existing weeds. Where possible, this should be done early in the spring. Late summer application may prove beneficial for control of fall germinating weeds, if made following cultivation. Weed control up to three months or more may be expected following proper application. DACTHAL FLOWABLE is specifically recommended for weed control with the following:

Abelia
Aquarium
Aphious
Artemisia, Jac.
Arthronia
Ash
Aster
Asparagus
Beech
Bleedingheart
Bloodroot
Broom
Buckwheat
Camellia
Cercis
Cherry
Chinaberry
Chrysanthemum
Cowpea
Creosote
Cucumber
Daisy
Dahlias
Dandelion
Decidua
Dendranthus
Dendron
Dendron
Diospyros
Elaine
Elaeagnus
Elm
Ems
Euphorbiaceae
Evening Primrose
Fennel
Fireweed
Forsythia
Forget-Me-Not
Forsythia
Flax
Forsythia
Fritillary
Fringe Tree
Gardenia
Geranium
Gesneria
Giboshi
Goldfish
Goldbraid
Goldenfawn
A selective preemergence herbicide for control of annual grasses and certain broadleaved weeds. It is a violation of Federal law to use this product in a manner inconsistent with its labeling. A minimum of one-third to one-half inch of water, either as rain or irrigation, is necessary for weeds to germinate. Water should be applied immediately. If furrow irrigation is used, the top of the bed must be thoroughly wet. A minimum of 10 gallons of spray per acre is recommended for control of creeping speedwell (Veronica filiformis). Applications should be made to soil recently cultivated to a uniform texture. These can be made immediately following lining-out of stock. With established plantings, a minimum of six inches of water should be applied. In areas where spray drift is a concern, appropriate drift management measures should be followed to avoid off-target drift movement from aerial applications to adjacent non-treatment areas. Application in early spring is best, as warmer temperatures increase herbicide activity. There is ample soil moisture to carry the herbicide downward should the soil be too wet at application time. The use of nozzles and their orientation, flow rates, and pressures can affect droplet size and drift. Lower pressure and smaller droplets are associated with lesser drift. The droplet size chart indicates that smaller droplets are formed by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the evening. As evaporation that occurs immediately after irrigation, banding applications of preemergence herbicides, such as DACTHAL FLOWABLE, significantly reduces the potential for off-site drift. For best results, the use of low-drift nozzles is recommended. A selective preemergence herbicide for control of annual grasses and certain broadleaved weeds, it's a violation of Federal law to use this product in a manner inconsistent with its labeling. A minimum of one-third to one-half inch of water, either as rain or irrigation, is necessary for weeds to germinate. Water should be applied immediately. If furrow irrigation is used, the top of the bed must be thoroughly wet. A minimum of 10 gallons of spray per acre is recommended for control of creeping speedwell (Veronica filiformis). Applications should be made to soil recently cultivated to a uniform texture. These can be made immediately following lining-out of stock. With established plantings, a minimum of six inches of water should be applied. In areas where spray drift is a concern, appropriate drift management measures should be followed to avoid off-target drift movement from aerial applications to adjacent non-treatment areas. Application in early spring is best, as warmer temperatures increase herbicide activity. There is ample soil moisture to carry the herbicide downward should the soil be too wet at application time. The use of nozzles and their orientation, flow rates, and pressures can affect droplet size and drift. Lower pressure and smaller droplets are associated with lesser drift. The droplet size chart indicates that smaller droplets are formed by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the evening. As evaporation that occurs immediately after irrigation, banding applications of preemergence herbicides, such as DACTHAL FLOWABLE, significantly reduces the potential for off-site drift. For best results, the use of low-drift nozzles is recommended.
**Dacthal Flowable Booklet 11468-11 • p7**

**03/15/12**

**AMVAC Chemical Corp.**

**Black**

**Lamination**

**White Bopp**

**Permanent**

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<table>
<thead>
<tr>
<th>Crpa</th>
<th>When To Apply</th>
<th>Rate Per Acre</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brassica leaf: (cabbage,</td>
<td>At transplanting and early</td>
<td>0-64 pts. PLOWABLE per acre</td>
<td>Apply uniformly to the soil as a spray. For new beds apply 12 pts at transplanting. Can be preplanted. In California, applications must be based and incorporated as described above.</td>
</tr>
<tr>
<td>horseradish, kohlrabi,</td>
<td>Leaf stage</td>
<td></td>
<td></td>
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<tr>
<td>turnips, turnips (roots)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>and radishes)</td>
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<td></td>
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</tr>
<tr>
<td>Tomatoes, tomatillos and</td>
<td>At transplanting and early</td>
<td>0-64 pts. PLOWABLE per acre</td>
<td>Apply uniformly to the soil as a spray. For new beds apply 12 pts at transplanting. Can be preplanted. In California, applications must be based and incorporated as described above.</td>
</tr>
<tr>
<td>eggplant</td>
<td>Leaf stage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strawberries</td>
<td>At heading or up to three-leaf</td>
<td>0-64 pts. PLOWABLE per acre</td>
<td>Apply uniformly to the soil as a spray. For new beds apply 12 pts at transplanting. Can be preplanted. In California, applications must be based and incorporated as described above.</td>
</tr>
<tr>
<td>Collards, kale, mustard</td>
<td>At planting</td>
<td>0-14 pts. PLOWABLE per acre</td>
<td>See Remarks. If weeds emerge, the crop should be cultivated or weeds prior to DACTHAL FLOWABLE application. Incorporation of apply applications not recommended. In California, applications must be based.</td>
</tr>
<tr>
<td>greens, turnip greens</td>
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<tr>
<td>(broccoli raab, honeydew,</td>
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<tr>
<td>watermelons)</td>
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<tr>
<td>Sunflowers</td>
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<tr>
<td>Onions (dry bulb onions,</td>
<td>At transplanting and early</td>
<td>0-64 pts. PLOWABLE per acre</td>
<td>Apply uniformly to the soil as a spray. For new beds apply 12 pts at transplanting. Can be preplanted. In California, applications must be based and incorporated as described above.</td>
</tr>
<tr>
<td>dry bulb shallots and</td>
<td>Leaf stage</td>
<td></td>
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<tr>
<td>green onions, green</td>
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<tr>
<td>onions, leeks, spring</td>
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<tr>
<td>onions or shallots,</td>
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<tr>
<td>Japanese bunching onions,</td>
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<tr>
<td>greens or green asparagus</td>
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<tr>
<td>Tobacco, and eggplant</td>
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<tr>
<td>Tomatoes, tomatillos and</td>
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<td>eggplant</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Strawberries</td>
<td>New Plantings</td>
<td>12 pts. PLOWABLE per acre</td>
<td>Application uniformity to the soil as a spray. For new beds apply 12 pts at transplanting. Can be preplanted. In California, applications must be based and incorporated as described above.</td>
</tr>
<tr>
<td>Blackberries</td>
<td>Established Plantings</td>
<td>8-12 pts PLOWABLE per acre</td>
<td>Application uniformity to the soil as a spray. For new beds apply 12 pts at transplanting. Can be preplanted. In California, applications must be based and incorporated as described above.</td>
</tr>
</tbody>
</table>

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**See Remarks**

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**Changes**

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**Approved As Is**

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**Proof Approval**

If you have any questions, please contact:

ART DEPARTMENT
PHONE: 408.863.3800
FAX: 408.863.3801

**Total Label USA**

**Your Total Label Solution.**

Please email us to:

art@totallabel.com

**500 Resource Lane**

**Whitefield, MI 49997**

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**Environmental HAZARDS**

**Emergency telephone numbers:**

**For Medical Emergencies phone:** 1-888-681-4261

**To obtain additional information about the product:**

**Amvac Chemical Corporation**

**Amvac Chemical Corporation**

**Amvac Chemical Corporation**

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**Notes:**

1. Brassica leafy vegetables crop group includes broccoli, Chinese (gai lon, white flowering) broccoli, broccoli raab (nori), Brussels sprouts, cabbage, Chinese cabbage (bok choy, napa, light-heading varieties), Chinese mustard cabbage (giy choy), cauliflower, savoy cabbage, collards, kale, lolithol, mizuna, mustard greens, mustard spinach and rape greens.

2. Plants of the Cruciferae family that are consumed when immature. 100% of the fruit is edible when included in a salad, once seeded it cannot be stored, has a soft rind which is easily penetrated, and if seeds were harvested they would not germinate; e.g., Lagenaria spp. (i.e., hyacinth, courgette), Luffa spp. (i.e., luffa, Chinese luffa), Momordica spp. (i.e., bitter melon, balsam pear, balsam apple, Chinese cucumber); Sacha-inchi (shazie); and other cultivars and/or hybrids of these.
APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION

DACTHAL FLOWABLE may be used through center pivot, motorized lateral move, solid set or portable (side roll, end tow or hand move) irrigation systems. DO NOT apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

DO NOT apply this product through irrigation systems connected to a public water system. ‘Public water system’ means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year.

A person knowledgeable of the irrigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation line to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, push-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally-closed, seal-off-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the injection system is either automatically or manually shut down.

Always reject DACTHAL FLOWABLE into irrigation water after it discharges from the injection pump and after it passes through the check valve, flavor pesticides into the intake line of the suction side of the pump.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

DO NOT apply when wind speeds exceed the area intended for treatment.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

DACTHAL FLOWABLE may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place, then refer to the appropriate directions provided for each type. The tank containing DACTHAL FLOWABLE must be equipped with effective mechanical agitation to keep the weedicide well suspended in suspension. Preparing DACTHAL FLOWABLE as instructed under ground application will ensure that a uniform suspension is obtained. The injection equipment which contains the DACTHAL FLOWABLE suspension should be connected to the discharge side of the irrigation pump or other pressurized equipment attached to the irrigation line.

A. Center Pivot and Motorized Lateral Move Irrigation Equipment

For application of pesticides, those continuously moving systems must use a positive displacement injection pump, of either diaphragm or piston type, constructed of materials that are compatible with pesticides and capable of injecting at pressures approximately 2.5 times those encountered within the irrigation water line. Certain applicator units cannot be used on these systems.

Fill chemical supply tank of injection equipment with water. Operate system for one complete revolution or run across the field, measuring time required, amount of water injected, and acreage covered. Thoroughly mix recommended amount of DACTHAL FLOWABLE for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixure in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until DACTHAL FLOWABLE has been cleared from last sprinkler head.

B. Solid Set and Portable (Side Roll, End Tow or Hand Move) Irrigation Equipment

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a 30 to 45-minute period. Mix desired amount of DACTHAL FLOWABLE for acreage to be covered into quantity of water used during calibration and inject into system continuously for one revolution or run. Mixure in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until DACTHAL FLOWABLE has been cleared from last sprinkler head.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

PESTICIDE STORAGE: Store in a dry place.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of at an approved waste disposal facility. DO NOT contaminate water when disposing of equipment washings.

CONTAINER DISPOSAL: Nonrefillable containers. Do not reuse or refill this container.

Tripe rinse container (or equivalent) promptly after emptying. Tripe rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 30 seconds after the flow begins to drop. Fill the container ½ full with water and mix. Drain for 30 seconds. Pour rinse into application equipment or the mix tank or store rinse for later use or disposal. Drain 30 seconds after the flow begins to drop. Repeat this procedure two more times. Then offer for recycling if available or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerator, or if allowed by state and local authorities, by burning. If burned, make sure smoke is not visible.
Fruits of the gourd (which is easily penetrated, and if seeds were harvested...)

Sweet Potatoes

Radish

Seeded melons: (cantaloupe, Cucurbitaceae) family that are consumed when immature, 100% of the fruit is edible either cooked or raw, once picked it cannot be stored, has a soft rind

At planting

ing or on direct seeded

height (see remarks)

leaves (see remarks)

See Rates of Application

Apply uniformly to the soil as a spray at transplanting. DACTHAL FLOWABLE can be sprayed directly over transplants without injury. A layby application can be made up to 14 days after transplanting. Plants should be well-established and growing conditions favorable for making the DACTHAL FLOWABLE application. DO NOT apply to seeded plants until August through December. Due to potential for off-site movement through co-distillation

Incorporation not recommended. In California, applications must be banded.

Apply uniformly to the soil as a spray at time of seeding. Preplant incorporation not recommended. In California, applications must be banded.

Apply uniformly to the soil as a spray. DACTHAL FLOWABLE can be sprayed directly over the plants without injury. Layby applications can be made up to 6 hours after application in all counties.

Apply uniformly to the soil as a spray. For new beds apply 12 pints at transplanting. Use 1/4 inch of overhead irrigation to incorporate Dacthal into the soil. Where onion is not recommended for onions.

Apply uniformly to the soil as a spray in 20 to 30 gallons of water per acre. If weeds have application uniformly to the soil should be confined to a period of 4-6 weeks after application in all counties.

Layby used in this table refers to the time just prior to the stage when crop plant size is not recommended. In California, applications must be banded.

Layby applications can be made on onions either

August 1 through December 31, broadcast applications of DACTHAL FLOWABLE

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

DO NOT apply when wind speed favors drift beyond the area intended for treatment.

Angeles, Riverside, San Diego and Imperial. A minimum of 50 gallons of water per

acreage covered. Thoroughly mix recommended amount of DACTHAL FLOW

The pesticide injection pipeline must contain a functional, automatic, quick acting system interlock.

Always inject DACTHAL FLOWABLE into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line of the suction side of the pump.

There are no express warranties other than those set forth herein. The manufacturer neither makes nor intends, nor does it authorize any agent or representative, to make any other warranties, express or implied, and it expressly excludes and disclaims all implied warranties of merchantability of fitness for a particular purpose, or any warranty of quality or performance. This warranty does not extend to, and the buyer shall be solely responsible for, any and all loss or damage which results from the use of this product in any manner which is inconsistent with the label directions, warnings or cautions.

Buyer’s exclusive remedy and manufacturer’s or seller’s exclusive liability for any and all claims, losses, damages, or injuries resulting from the use or handling of this product, whether or not based in contract, negligence, strict liability in tort or otherwise, shall be limited, at the manufacturer’s option, to replacement of, or the repayment of the purchase price for, the quantity of product with respect to which damages are claimed. In no event shall manufacturer or seller be liable for special, indirect or consequential damages resulting from the use or handling of this product.

MMAC offers this product, and Buyer accepts it, subject to the foregoing Limited Warranty and Disclaimer which may be varied only by agreement in writing signed by an authorized representative of MMAC.

Dacthal® is a registered trademark of Amvac Chemical Corporation.

Amvac Chemical Corporation

4000 E. Washington Boulevard

Los Angeles, CA 90023 U.S.A.

1-888-452-6822

This product is not recommended for use on crops listed in the following table.

CONTAINER DISPOSAL:

Pour rinsate into application equipment or a mix tank or store rinsate water, food or feed by storage or disposal. Open dumping is prohibited.

STORAGE AND DISPOSAL

For Product Use Information phone: AMVAC.....................................................................1-888-462-6822

CAUTION

NET CONTENTS: 2.5 gallons

11468-11

For Product Use Information phone: AMVAC.....................................................................1-888-462-6822

CAUTION

NET CONTENTS: 2.5 gallons

11468-11
Dacthal® Flowable Booklet

# Brassica leafy vegetables crop group

Includes broccoli, Chinese (gai lon, white flowering) broccoli, broccoli raab (rapini), Brussels sprouts, cabbage, Chinese cabbage (bok choy, which is easily penetrated, and if seeds were harvested prior to layby, the onions should be cultivated or weeded prior to application. Use 1/4 inch of overhead irrigation to incorporate Dacthal into the soil. Where onion growing conditions are unfavorable, crop injury may result. If weeds have emerged, incorporation not recommended. In California, applications must be banded until seed begins to germinate to reduce the risk of crop injury. Preplant incorporation is not recommended for onions.

Apply uniformly to the soil as a spray. For new beds apply 12 pints at transplanting. DACTHAL FLOWABLE can be applied uniformly to the soil as a spray at transplanting. Applications uniformly to the soil should be confined to a period of 4-6 weeks after transplanting. Plants should be well-established and growing conditions favorable for plant growth. Dacthal® Flowable is compatible with pesticides and capable of injection at pressures approximately 2-3 times those encountered within the irrigation water line. Venturi applicator units cannot be used with this product.

### Strawberry

Shallots and green onions (green honeydew, watermelons)

### Cucurbitaceae

Cucumbers, squash, melons, bitter melon, and pumpkins

### Leaf stage

Plants at 4-6 inches in growth stage

### Incorporation not recommended

In California, applications must be banded until seed begins to germinate to reduce the risk of crop injury. Preplant incorporation is not recommended for onions.
PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS
DO NOT apply directly to water, to areas where surface water is present or to riparian areas below the mean high water mark.
DO NOT contaminate water when disposing of equipment wastewater.
Groundwater Advisory: Tetrachloroterephthalic acid, a breakdown product of DACTHAL FLOWABLE, is known to leach through soil as a result of agricultural and turf uses and has been found in groundwater which may be used for drinking water. Users are advised not to apply DACTHAL FLOWABLE to sand and loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable, i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater used for drinking water.
Surface Water Advisory: DCPA can contaminate surface water through spray drift. Under some conditions, DCPA may also have a high potential to contaminate surface water through runoff (via both dissolution in runoff water and adsorption to eroding soil) for several weeks post-application. Users are advised not to apply DACTHAL FLOWABLE to poorly draining or wet soils with readily visible sloping towards adjacent surface waters, frequently flooded areas, areas overlapping extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and highly erodible soils.

EPA Reg. No. 5481-487
EPA Est. No. 374296-6A-1
374296-6A-2

SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS, STORAGE & DISPOSAL AND DIRECTIONS FOR USE.

AMVAC
4200 C, Washington Blvd.
Los Angeles, CA 90023 U.S.A
1-888-462-6822

NET CONTENTS: 2.5 gallons
11468-11

Color proofs are not true representations of color.
Use for color breaks only.

AMVAC Chemical Corp.
Total Label USA, Inc.
Your Total Label Solution.

Joy Paff
AMVAC Chemical Corp.
Dacthal Flowable Booklet 11468-11 • BASE
Black, 293 Blue
Lamination
White Bopp
Permanent

7.25" X 7.25"
RCR
4
12" O.D.

If in eyes
Hold eye open and rinse slowly and gently with water for 15-20 minutes.
Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
Call a poison control center or doctor for treatment advice.

If inhaled
Move person to fresh air.
If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
Call a poison control center or doctor for further treatment advice.

If on skin or clothing
Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15-20 minutes.
Call a poison control center or doctor for treatment advice.

If swallowed
Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15-20 minutes.
Call a poison control center or doctor for treatment advice.

EMERGENCY INFORMATION
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:

FOR MEDICAL EMERGENCIES PHONE 24 HOURS A DAY:
1-888-681-4261
CHEMTREC...1-800-424-9300

FOR PRODUCT USE INFORMATION: AMVAC...1-888-462-6822

FOR TRANSPORTATION EMERGENCIES, INCLUDING SPILL, LEAK OR FIRE:
CHEMTREC...1-800-424-9300

FIRST AID
PRECAUTIONARY STATEMENTS