Devrininol®

50-DF Ornamental Herbicide


Active Ingredient:
Napropamide ........................................ 50%

Other Ingredients: ................................... 50%

Total: .................................................. 100%

Contains 50 lbs. of Active Ingredient per 100 lbs.

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Reg. No. 70506-38
EPA Est. No. 11773-IA-01

Net Weight: 4 lbs.

GROUP 15 HERBICIDE

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed. Avoid contact with skin, clothing, or eyes. Causes moderate eye irritation. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators and other handlers must wear:
• Long-sleeved shirt and long pants
• Chemical-resistant gloves
• Shoes plus socks

Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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. Pilots must use an enclosed cockpit that meets the requirements in the Worker Protection Standard.

FIRST AID

If swallowed
• Call a poison control center or doctor immediately for treatment advice.
• 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.

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 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical treatment, contact the Rocky Mountain Poison Center 1-866-673-6671.

User Safety Recommendations

Users should:
• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
• Remove clothing/PPE 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

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

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.

General Use Precautions

Read all instructions before using.

Use only for listed purposes and at listed rates. Do not overdose. Except where specifically noted, do not apply Devrinol® 50-DF Ornamental Herbicide to soil containing more than 10% organic matter.

Spraying on ground heavily covered with leaves or trash may adversely affect weed control.

Do not apply to frozen ground.

Do not contaminate irrigation water or water used for domestic purposes.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300

EPA Reg. No. 70506-38
EPA Est. No. 11773-IA-01

United Phosphorus, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406
1-800-438-6071 • www.upi-usa.com
AGRICULTURAL USE REQUIREMENTS
Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:
- Coveralls
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material
- Eye wear

WEEDS CONTROLLED BY 8 TO 12 LBS. OF Devrinol 50-DF Ornamental

ANNUAL GRASSES:
- Barnyardgrass, Junglerice: Echinochloa spp.
- Foxtail Barley: Hordeum jubatum
- Wild Barley: Hordeum leporinum
- Annual Bluegrass: Poa annua
- Bromes: Bromus
- Cheatgrass: B. secalinus
- Downy Brome: B. tectorum
- Ripgut Brome: B. rigidus
- Soft Chess: B. mollis
- Canarygrass: Phalaris canariensis
- Large (Hairy) Crabgrass: Digitaria sanguinalis
- Smooth Crabgrass: Digitaria ischaemum
- Southwestern Cupgrass: Eriochloa gracilis
- Foxtails: Setaria
- Bristly Foxtail: S. verticilla
- Giant Foxtail: S. faberi
- Green Foxtail: S. viridis
- Yellow Foxtail: S. lutescens
- Goosegrass: Eleusine indica
- Seedling Johnsonsgrass: Sorghum halepense
- Wild Oats: Avena fatua
- Panicums: Panicum
- Guineagrass: P. Maximum
- Fall Panicum: P. dichotomiflorum
- Texas Panicum: P. texanum
- Witchgrass: P. capillare
- Italian Ryegrass: Lolium multiflorum
- Sandbur: Cenchrus spp.
- Mexican Sprangletop: Leptochloa uninervia
- Red Sprangletop: Leptochloa filiformis
- Stinkgrass: Eragrostis cilianensis

GENERAL INFORMATION
Devrinol 50-DF Ornamental does not control established weeds. It must be applied to freshly weeded soil before weeds germinate, or during Fall and Winter months.

Devrinol 50-DF Ornamental can be applied to newly planted container stock after soil has settled from first watering, field grown nursery stock, dichondra, and to established plants.

Devrinol 50-DF Ornamental needs mechanical incorporation (such as a power tiller), adequate irrigation, or natural moisture (1-2 inches of rainfall or snow within 2-3 days) for optimum results.

Devrinol 50-DF Ornamental may be used on several different container potting soil mixtures. These mixtures include those containing 30 percent soil and/or sand, and mixtures containing no soil. (For example: perlite, peat, bark, sawdust, and sand.) Do not apply this product through any type of irrigation system.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR WEED CONTROL, OR ILLEGAL RESIDUES.
**GENERAL SITES OF USE**

**Nursery Stock (Field Grown):** Consult list of plant species on which Devrinol 50-DF Ornamental can be used. Apply Devrinol 50-DF Ornamental as a broadcast treatment over young nursery stock or as a directed application to larger stock either as a band or broadcast application.

Application can be made any time of the year to weed free soil; however, since Devrinol 50-DF Ornamental requires 1 to 2 inches of rainfall or irrigation soon after application for adequate weed control, applications should be timed to take advantage of rainfall if irrigation is not available. Fall and Winter applications will provide excellent weed control the following Spring and Summer.

A thorough incorporation of Devrinol 50-DF Ornamental into the soil to a depth of 1 to 2 inches will provide excellent weed control with less rainfall required.

One application of Devrinol 50-DF Ornamental should provide adequate weed control for a growing season in temperate areas.

**Container Grown Ornamentals:** Consult list of plant species on which Devrinol 50-DF Ornamental can be used. Apply Devrinol 50-DF Ornamental as a broadcast treatment over the containers.

Normal irrigation or rainfall (if a Fall or Winter application is made in cold areas) should provide sufficient water for satisfactory weed control.

**Home Grounds, Highway And Industrial Ornamental Plantings:** Use an overall (broadcast) treatment over young ornamentals or as a directed application where larger plants are growing. Irrigate soon after application or apply just before expected rain. Fall through Spring applications are preferred if irrigation is not available or if application is to be made in lower Summer rainfall areas.

**Ground Covers:** Apply Devrinol 50-DF Ornamental as a broadcast treatment over the ground covers. Irrigate immediately with a minimum of 1 inch water or apply when rainfall is expected.

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### WEEDS CONTROLLED BY 8 TO 12 LBS. OF Devrinol 50-DF Ornamental

**ANNUAL BROADLEAF WEEDS:**

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<tr>
<th>Weed</th>
<th>Specific Ornamentals, Nursery Stock, and Container Stock for Devrinol Use</th>
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<td>Carpetweed</td>
<td><strong>Deciduous and Evergreen Trees</strong></td>
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<tr>
<td>Mollugo verticillata</td>
<td>Acer</td>
</tr>
<tr>
<td>Common Chickweed</td>
<td>Asperagus (Sprengeri)</td>
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<tr>
<td>Stellaria media</td>
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<tr>
<td>Coast Fiddleneck</td>
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<tr>
<td>Amsinckia intermedia</td>
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<td>Cudweed, Purple</td>
<td>Bottlebrush</td>
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<td>Redstem Filaree</td>
<td>Buxus</td>
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<tr>
<td>Erodium circuitarium</td>
<td>Camellis</td>
</tr>
<tr>
<td>Common Groundsel</td>
<td>Camellis</td>
</tr>
<tr>
<td>Senecio vulgaris</td>
<td>Camellis</td>
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<tr>
<td>Prostrate Knotweed</td>
<td>Carpinus</td>
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<tr>
<td>Polygonum aviculare</td>
<td>Carya</td>
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<tr>
<td>Lambsquarters</td>
<td><em>Cercis</em></td>
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<tr>
<td>Chenopodium album</td>
<td><em>Cercis</em></td>
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<tr>
<td>Prickly Lettuce</td>
<td><em>Cercis</em></td>
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<tr>
<td>Lactuca serriola</td>
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<td>Little Mallow</td>
<td><em>Chionanthus</em></td>
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<tr>
<td>Malva parviflora</td>
<td><em>Chionanthus</em></td>
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<tr>
<td>Redroot Pigweed</td>
<td><em>Clethra</em></td>
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<tr>
<td>Amaranthus retroflexus</td>
<td><em>Clethra</em></td>
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<tr>
<td>Pineappleweed</td>
<td><em>Clethra</em></td>
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<tr>
<td>Matricaria matricarioides</td>
<td><em>Clethra</em></td>
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<tr>
<td>Common Purslane</td>
<td><em>Clethra</em></td>
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<tr>
<td>Portulaca oleracea</td>
<td><em>Clethra</em></td>
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<tr>
<td>Horse Purslane</td>
<td><em>Clethra</em></td>
</tr>
<tr>
<td>Trianthema portulacastrum</td>
<td><em>Clethra</em></td>
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<tr>
<td>Common Ragweed</td>
<td><em>Clethra</em></td>
</tr>
<tr>
<td>Ambrosia artemisiifolia</td>
<td><em>Clethra</em></td>
</tr>
<tr>
<td>Annual Sowthistle</td>
<td><em>Clethra</em></td>
</tr>
</tbody>
</table>

*From seed

**Suppression**

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### SPECIFIC ORNAMENTALS, NURSERY STOCK, AND CONTAINER STOCK FOR DEVринOL USE

**Deciduous and Evergreen Trees**

- Acer
- Almond
- Ash
- Balsam fir
- Birch
- Birch, European White
- Black Walnut
- Cedar
- Citrus
- Crataegus
- Cypress
- Dogwood
- Douglas Fir
- Elm, Siberian
- Eucalyptus
- Ficus
- Fir
- Gleditsia
- Golden Rain Tree
- Gum, Sweet
- Hypericum
- Ilex
- Juniperus
- Leucothoe
- Ligustrum
- Nandia
- Natal Plum
- Oleander
- Osmanthus
- Photinia
- Podocarpus
- Prunus
- Prunus
- Picea
- Pin Oak
- Pine, White
- Pinus
- Podocarpus
- Populus
- Populus
- Populus
- Populus
- Prince
- Prunus
- Picea
- Podocarpus
- Pyracantha
- Raphiolepis
- Rhododendron
- Rosa
- Serviceberry
- Star Jasmine
- Taxus
- Vibernum
- Xylosema

**Fruit and Nuts**

- Almond
- Pecan
- Filbert
- Strawberry
- Grape

Strawberry: Applications should be delayed until the desired number of daughter plants have become established. Do not apply from bloom through harvest.
APPLICATION RATES FOR SITES LISTED ABOVE

Annual Weeds: For annual grasses and broadleaf weeds, apply 8-12 lbs. of Devrinol 50-DF Ornamental per broadcast acre (3-4.4 oz. per 2 1/2 gallons water per 1,000 sq. ft.). Do not apply more than 4 lbs. a.i. (8 lbs. Devrinol 50-DF Ornamental) per broadcast acre (3 oz. per 2 1/2 gallons water per 1,000 sq. ft.) on almond, pecan, and grape use sites. A maximum of one application per year is allowed on almond, pecan, and grape use sites. Do not apply more than 8 lbs. of Devrinol 50-DF Ornamental per acre in California. Use the higher rate when weed populations are heavy or when broadleaves are the primary weeds, but only when the use directions above allow it.

BULBS – FIELD GROWN

Iris Narcissus
Daffodil Tulip
Lilies

Annual Weeds: For annual grasses and broadleaf weeds, apply 8 lbs. of Devrinol 50-DF Ornamental per broadcast acre (3 oz. per 2 1/2 gallons water per 1,000 sq. ft.) as a surface spray over newly planted bulbs after October 15, but before germination of any annual weed seeds. Apply in 20 to 100 gallons of water per acre using ground spray equipment. Do not apply more than once per season.

OR

Apply 8 lbs. of Devrinol 50-DF Ornamental per broadcast acre as a surface spray in the spring before germination of summer annual weeds. Do not apply to tulips showing more than 2 inches of top growth.

TURF GRASS (WARM SEASON GRASSES ONLY)

Devrinol 50-DF Ornamental may be used for annual bluegrass, crabgrass and goosegrass control in the following established turf grasses: Bahia, Bermuda grass, Centipede, St. Augustine and Fescue.

Timing of Application: For control of crabgrass and goosegrass, apply Devrinol 50-DF Ornamental at the listed rate. Application should be made 2-3 weeks prior to weed emergence. Devrinol 50-DF Ornamental should be mixed with enough water to give adequate coverage of the area to be treated (but no less than 80 gallons per acre). Use a lawn type spray gun.

Devrinol 50-DF Ornamental requires a minimum of one-half (1/2) inch of rainfall or irrigation 2-3 days after application for adequate control. If irrigation methods are not available, the timing of application of Devrinol 50-DF Ornamental should be moved back several weeks to allow for some rainfall between application and weed germination.

For Crabgrass Control: Apply 4-6 lbs. of Devrinol 50-DF Ornamental per acre in 80-120 gallons of water (1.5-2.25 oz. per 2 1/2 gallons of water per 1,000 sq. ft.). Goosegrass usually starts to germinate 6-7 weeks after the start of crabgrass germination.

Split Application for Crabgrass and Goosegrass Control: When both of these weeds are to be controlled, apply 4 lbs. of Devrinol 50-DF Ornamental spread uniformly per acre (1.5 oz. per 1,000 sq. ft.) for crabgrass and another 4 lbs. of Devrinol 50-DF Ornamental per acre for goosegrass. Apply 8-10 weeks apart. Timing should be adjusted to the germination of weeds in your area. Split applications give longer and better weed control than one application.

For Annual Bluegrass (Poa Annua) Control: Annual bluegrass is a Winter annual in most of the warm season turf regions; therefore, application of Devrinol 50-DF Ornamental should be made in the Fall before the annual bluegrass germinates. Apply 4-6 lbs. of Devrinol 50-DF Ornamental per acre in 80-120 gallons of water (1.5-2.25 oz. per 2 1/2 gallons of water per 1,000 sq. ft.).
Reseeding:
Do not seed or overseed within six months after
available, the application should be delayed several weeks to
2-3 days after application for adequate control. If irrigation is not
The Devrinol 50-DF Ornamental/Betasan 4E combination
est germination date for crabgrass in your area.
Application should be made at least 2-3 weeks before the earli-

General Tank Mix Directions
Proper care must be used in preparing combination tank mix-
tures to avoid incompatibility problems. Fill the spray tank at
least 2/3 full of water. Start agitation and continue moderate agi-
tation throughout mixing and application. Add, mix and disperse
wettable powders first and flowable products next. Make sure
each product is thoroughly wetted and dispersed prior to addi-
tion of the next product. Complete filling the tank with water, mix
thoroughly, and maintain moderate agitation to provide a uni-
mix during application. The tank mix combination should
not be left in the spray tank for prolonged periods; batches
should be mixed and applied the same day. All return lines to the
tank must discharge below liquid level.

Betasan® 4E Combination
Devrinol 50-DF Ornamental may be used as a tank mix combi-
nation with Betasan 4E Herbicide for crabgrass control in the fol-
lowing established turf grass: Bahia, Bermudagrass, Centipede,
St. Augustine and Fescue.
Add the listed amount of Devrinol 50-DF Ornamental to the spray
tank while filling with water. After the Devrinol 50-DF Ornamental
is thoroughly wetted out and dispersed in all of the water, then
add the listed amount of Betasan 4E and mix to provide a uni-
mix dispersion. Apply in at least 80 gallons of water per acre.
Apply 4 lbs. of Devrinol 50-DF Ornamental and 5 qts. of
Betasan 4E per acre using a minimum of 80 gallons of water.
Application should be made at least 2-3 weeks before the earli-
est germination date for crabgrass in your area.
The Devrinol 50-DF Ornamental/Betasan 4E combination
requires a minimum of one-half (1/2) inch of rainfall or irrigation
2-3 days after application for adequate control. If irrigation is not
available, the application should be delayed several weeks to
allow for some rainfall between application and weed germination.
Reseeding: Do not seed or overseed within six months after
application.

STORAGE AND DISPOSAL
Do not contaminate water, food or feed by storage or disposal.
Pesticide Storage: Keep container closed when not in use.
Store in a cool dry place. Do not store near seeds, fertilizer or
food stuffs.
Pesticide Disposal: Wastes resulting from the use of this product
may be disposed of on site or at an approved waste
disposal facility.
Container Disposal: Nonrefillable container. Do not reuse
or refill this container. Completely empty bag into application
equipment. Then offer for recycling if available, or dispose of
empty bag in a sanitary landfill or by incineration, or, if allowed
by State and local authorities, by burning. If burned, stay out
of smoke.

IMPORTANT INFORMATION
READ BEFORE USING PRODUCT

CONDITIONS OF SALE AND LIMITATION OF
WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of
Sale and Limitation of Warranty and Liability before buying or
using this product. If the terms are not acceptable, return the
product at once, unopened, and the purchase price will be
refunded.
The Directions for Use of this product reflect the opinion of
experts based on field use and tests, and must be followed
carefully. It is impossible to eliminate all risks associated
with the use of this product. Crop injury, ineffectiveness or other
unintended consequences may result because of such factors
as manner of use or application, weather or crop conditions,
presence of other materials or other influencing factors in the
use of the product, which are beyond the control of United
Phosphorus, Inc. or Seller. Handling, storage, and use of the
product by Buyer or User are beyond the control of United
Phosphorus, Inc. and Seller. All such risks shall be assumed by
Buyer and User, and Buyer and User agree to hold United
Phosphorus, Inc. and Seller harmless for any claims relating to
such factors.

To the extent consistent with applicable law, United
Phosphorus, Inc. warrants that this product conforms to the
chemical description on the label and is reasonably fit for the
purposes stated in the Directions for Use, subject to the inher-
ent risks referred to above, when used in accordance with
directions under normal use conditions. This warranty does
not extend to the use of this product contrary to label instruc-
tions, or under abnormal conditions or under conditions not
reasonably foreseeable to or beyond the control of Seller or
United Phosphorus, Inc., and Buyer and User assume the risk
of any such use. To the extent consistent with applicable law,
UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF
MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR
PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WAR-
RANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, United
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consequential or special damages resulting from the use or
handling of this product and THE EXCLUSIVE REMEDY OF
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OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY
AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES
INCLUDING CLAIMS BASED ON BREACH OF WARRAN-
TY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY
OR OTHERWISE RESULTING FROM THE USE OR HAND-
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THE PURCHASE PRICE OF THE PRODUCT OR, AT THE
ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER,
THE REPLACEMENT OF THE PRODUCT.

United Phosphorus, Inc. and Seller offer this product, and
Buyer and User accept it, subject to the foregoing conditions
of sale and limitations of warranty and of liability, which may
not be modified except by written agreement signed by the
duly authorized representative of United Phosphorus, Inc.

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Betasan® is a registered trademark of Gowan Company.
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