

Def[®] 6

Emulsifiable Defoliant Very Low Odor

For fast and effective cotton defoliation.

ACTIVE INGREDIENT:

S,S,S-Tributyl phosphorotrithioate 70.5%

INERT INGREDIENTS:..... 29.5%
100.0%

Contains Petroleum Distillates.

Contains 6 lbs tribufos: S,S,S-Tributyl phosphorotrithioate per U.S. gallon.

EPA Reg. No. 3125-282 Two 2.5-Gallon Jugs Per Case,
30-Gallon Drum, 110-Gallon Mini-Bulk

STOP - Read the label before use.

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.)

STATEMENTS OF PRACTICAL TREATMENT

Organophosphate

If in eyes, hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. **If on skin,** wash with plenty of soap and water. Get medical attention. **If swallowed,** call a physician or poison control center. Drink promptly a large quantity of milk, egg white, gelatin solution, or if these are not available, large quantities of water. Avoid alcohol. **If inhaled,** remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

To Physician: This product inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system and the somatic motor nerves. Poisoning with this product also results in cardiovascular and respiratory symptoms which must be treated as separate pathological entities apart from the cholinergic effects.

Use atropine sulfate to reverse cholinergic symptoms; maintain a systematic, symptomatic treatment of the cardiovascular and respiratory effects, even though the cholinergic symptoms have ceased. Do not give central nervous system depressants. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. The use of oxygen is recommended in case of respiratory distress.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive. Causes burns to the skin and irreversible eye damage. May be fatal if swallowed. Harmful if inhaled or absorbed through the skin. Do not get in eyes, on skin or on clothing. Avoid breathing vapor or spray mist.

Personal Protective Equipment: Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing or loading
- For exposures in enclosed areas, a respirator with an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter.
- For exposures outdoors, dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R, P or HE filter.

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/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering controls statements: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

User 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.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. 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 apply where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwaters. Apply this product only as specified on this label.

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 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 7 days.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

IMPORTANT: Read these entire Directions and Conditions of Sale before using DEF 6 Emulsifiable Defoliant.

CONDITIONS OF SALE: THE DIRECTIONS ON THIS LABEL WERE DETERMINED THROUGH RESEARCH TO BE THE DIRECTIONS FOR CORRECT USE OF THIS PRODUCT. THIS PRODUCT HAS BEEN TESTED FOR A RANGE OF WEATHER CONDITIONS SIMILAR TO THOSE WEATHER CONDITIONS THAT ARE ORDINARY AND CUSTOMARY IN THE GEOGRAPHIC AREA WHERE THE PRODUCT IS USED. INSUFFICIENT DEFOLIATION AND/OR INJURY TO THE CROP TO WHICH THE PRODUCT IS APPLIED MAY RESULT FROM THE OCCURRENCE OF EXTRAORDINARY OR UNUSUAL WEATHER, OR FROM FAILURE TO FOLLOW LABEL DIRECTIONS. IN ADDITION, FAILURE TO FOLLOW LABEL DIRECTIONS MAY CAUSE INJURY TO OTHER CROPS, ANIMALS, MAN, OR THE ENVIRONMENT.

BAYER OFFERS, AND THE BUYER ACCEPTS AND USES, THIS PRODUCT SUBJECT TO THE CONDITIONS THAT EXTRAORDINARY OR UNUSUAL WEATHER, OR FAILURE TO FOLLOW LABEL DIRECTIONS ARE BEYOND THE CONTROL OF BAYER AND ARE, THEREFORE, THE RESPONSIBILITY OF THE BUYER.

GENERAL INFORMATION

DEF 6 is a cotton defoliant which may be used for the removal of leaves from cotton plants prior to the anticipated harvest of the crop. DEF 6 contains six (6) pounds of active ingredient per gallon. It is non-corrosive and non-clogging to spray equipment and does not constitute a fire hazard.

DEF 6 must be applied in sufficient amounts of spray carrier to provide thorough coverage of leaves. DEF 6 treated leaves do not appear affected until defoliation actually begins and the leaves drop in a green condition. Under favorable conditions, defoliation of cotton normally occurs within four to seven days following application. Adverse conditions such as low temperature (especially temperatures below 60 °F at night), low humidity or plant stress may extend the defoliation time to nine to fourteen days. Under these adverse conditions, use the higher recommended DEF 6 rate and/or use diesel oil rather than water as the spray carrier.

Heavy rainfall during or immediately following a DEF 6 application may result in reduced performance. Application is not recommended when a heavy rainfall is expected within one hour after treatment. Dew on the plant leaves at time of application should not affect performance.

DEF 6 does not suppress second growth (regrowth), especially where rainfall follows defoliation. A second application of DEF 6 or a tank mixture of DEF 6 with recommended labeled cotton harvest aid products will be effective for defoliation of the second growth if excessive second growth has occurred.

DEF 6 may be used alone for bottom defoliation or for general plant defoliation. DEF 6 may also be applied in tank mixture with recommended registered products for enhanced cotton harvest aid activity.

GENERAL USE RESTRICTIONS

Do not apply more than 1 1/2 pints (1.125 lbs ai/A) of DEF 6 per acre per crop season in all States except California and Arizona.

Do not apply more than 2 1/2 pints (1.875 lbs ai/A) per acre per crop season in California and Arizona only.

DEF 6 is suitable for use in all power-operated ground and aircraft sprayers. Do not apply DEF 6 through any type of irrigation equipment.

Do not use DEF 6 on any other crop except cotton. Avoid spray drift to susceptible plants, as this product may injure or defoliate other crops.

Do not graze treated fields.

DEF 6 may not be applied within seven (7) days of harvest.

Observe all labeling cautions and limitations of all products used in tank mixtures.

MIXING INSTRUCTIONS

Compatibility of DEF 6 or its labeled tank mix products should always be predetermined prior to mixing. Refer to the COMPATIBILITY SECTION of this label for further details.

DEF 6 Alone: Fill the spray tank 1/2 to 3/4 full of clean water. Initiate the recirculation and agitation system and add the recommended amount of DEF 6. Continue sufficient agitation from the time of mixing through application to ensure a uniform spray mixture. Follow the same mixing instructions when diesel oil is substituted for water.

DEF 6 Tank Mixtures: Fill the spray tank 1/2 to 3/4 full of clean water and begin the sprayer recirculation and agitation system. If tank mixing with wettable powders of other dry products, make a slurry of these products with water and add slurry slowly to the spray tank. Next add the recommended amount of DEF 6. If mixing spray adjuvants in the mixture, add them after all other products have been mixed. Fill the spray tank to the desired level with water and continue agitation during transport and application until the spray tank is empty. Follow the same mixing instructions when diesel oil is substituted for water.

Addition of Adjuvants: To improve spray coverage, DEF 6 may be applied with the following types of adjuvants: 1) commercial blends of vegetable or petroleum-based oils, 2) non-ionic surfactant and 3) diesel oil (if allowed by local regulations). Adding or using diesel oil (3 to 5 gallons by air or a minimum of 5 gallons by ground) may be helpful when night temperatures drop below 60 °F, plants are under moisture stress, or on storm-proof cotton varieties. Use only those adjuvants which are exempt from tolerance requirements under 40 CFR 180.1001.

Compatibility: To determine the compatibility of DEF 6 with other products, do the following: 1) pour the recommended proportions of the products into a suitable container of water, 2) mix thoroughly and 3) allow to stand at least five minutes. If the combination remains mixed or can be re-mixed readily, it is considered physically compatible. For further information contact your local Bayer representative.

SPRAY EQUIPMENT CLEANING AND DECONTAMINATION

Immediately after applying DEF 6 alone or in tank mixtures, remove all unused spray mixture and follow directions on this label for disposal. Do not allow the pesticide mixtures to dry in the spray equipment. Dried pesticide residues may become resuspended and damage other crops if uncleaned spray equipment is used to apply other products during the same or the following year.

Thoroughly clean the spray tank, lines, nozzles and exterior surfaces of equipment immediately before and after applying DEF 6 alone or tank mixtures and before using the spray equipment the following year. Use a cleaner such as "Spic and Span," "Fantastic," or "Formula 409." Remove dried deposits from the exterior surfaces, especially aircraft fabric. This cleaning is particularly important if the spray equipment has been used to apply Dropp 50WP or products containing chlorates. Follow directions on this label for disposal of wash and rinse water.

APPLICATION PROCEDURES

DEF 6 alone may be applied with all suitable power operated ground and aircraft sprayer. If applying DEF 6 in tank mixture, refer to the application procedures of the tank mix partner and following the most restrictive label. Do not apply DEF 6 through any type of irrigation system.

Ground Application: Use spray equipment that provides a uniform and accurate application. A minimum spray volume of 10 gallons per acre is recommended when DEF 6 is applied with water and a minimum of 5 gallons per acre is recommended when DEF 6 is applied in diesel oil.

Aerial Application: Use aerial equipment calibrated to provide accurate and uniform spray coverage and application rates and to minimize the potential for spray drift. Do not apply when wind may cause drift.

A minimum spray volume of 5 gallons per acre should be used when DEF 6 and tank mixtures with DEF 6 are applied with water. DEF 6 alone may be applied in a minimum of 3 gallons of spray volume per acre when using diesel oil (minimum of 5 gallons per acre in California).

Aerial applicators must be in enclosed cockpits.

USE RATES

Use the specified use rate of DEF 6 in water or once refined vegetable oil or diesel oil. Apply sufficient spray to ensure uniform leaf wetting. All leaves must be treated for complete defoliation. DEF 6 does not suppress secondary growth.

RATE RECOMMENDATIONS			
CROP	DEF 6 RATE Pints/acre	MINIMUM WATER SPRAY VOLUME*	
		Gallons per Acre	
		AIR	GROUND
Cotton CA & AZ	1 1/3 to 2	5	15
	All Other States		
GENERAL PLANT DEFOLIATION ^a Apply specified dosage per acre to give thorough coverage of leaves when at least 50% of bolls are open, or according to local recommendations for Node Above Cracked Boll (NACB). For LV/ULV application, use not less than 1 1/2 pints per acre of once refined vegetable oil. For rank cotton, see below.			
All States	1 to 1 1/2	-	10
	BOTTOM DEFOLIATION ^b Apply specified dosage (the rate should be proportional to the fraction of the plant being defoliated) per acre with spray directed only to the lower part of the plant where mature bolls are found.		
Rank Cotton CA & AZ	2 1/2	5	15
	All Other States		
RANK COTTON DEFOLIATION Apply specified dosage per acre to give thorough coverage of leaves when at least 50% of bolls are open, or according to the local recommendation for Node Above Cracked Boll (NACB). The total rate may be applied in one or two applications (2 to 6 weeks apart) either alone or in an approved tank mix. To achieve more complete general plant defoliation, especially when using the 1 1/2 pints, use with an approved tank mixture is highly recommended. For LV/ULV applications, a maximum of 2 1/2 (CA,AZ) or 1 1/2 (all other states) pints per acre of DEF 6 per use season may be applied in not less than 1 1/2 pints per acre of once refined vegetable oil.			

RATE RECOMMENDATIONS			
CROP	DEF 6 RATE Pints/acre	MINIMUM WATER SPRAY VOLUME*	
		Gallons per Acre	
		AIR	GROUND
Long Staple Cotton (including Pima) CA & AZ	2 to 2 1/2	5	15
All Other States	1 1/2		
LONG STAPLE (INCLUDING PIMA) COTTON DEFOLIATION Apply specified dosage to mature cotton plants with 50% or more open bolls. For best results on pima cotton, use in tank mix combination with 0.2 to 0.4 lb Dropp 50 WP per acre when 60% or more bolls are open.			
^a General Plant Defoliation: Apply to mature cotton plants when 50% or more of the bolls are open and 7 to 10 days prior to anticipated picking. Plants are considered mature if the youngest bolls 1) cannot be dented by pressure between the thumb and forefinger or 2) cannot be cut through easily with a sharp knife.			
^b Bottom Defoliation: Losses from rot and weathering may be reduced by using DEF 6 to increase air movement and sunlight to bottom bolls. Use shielded drop nozzles to direct sprays to the lower leaves. By removing the picker's top 8 to 12 rows of spindles, the exposed bolls may be harvested. The picker will not injure the untreated top leaves and immature bolls. DEF 6 may be applied for entire plant defoliation when top bolls are mature.			
* If using diesel oil as the spray carrier, refer to the APPLICATION PROCEDURES section for minimum spray volume information.			

TANK MIX PARTNERS

DEF 6 may be applied in tank mixture with additional registered cotton harvest aid products to enhance cotton desiccation, defoliation and/or regrowth control. They may be applied with similar timings and methods as DEF 6 alone unless specifically prohibited in the mix partner product label. In some cases, cotton harvest aid performance may be affected by the temperature sensitivity of the tank-mix partner. Refer to the individual product labels for additional information on use rates, precautions and/or restrictions. The following products are recommended for tank mixtures with DEF 6:

Accelerate	Ethephon 6	Prep PC
Boll'd	Finish	Quik Pic
Cotton Aide	Ginstar	Roundup
CottonQuik	GK Prep	Roundup Ultra
Cyclone	Harvade	Starfire
Dropp	Prep	SuperBoll

TANK MIX PARTNERS	REMARKS
Dropp	Use 1 to 1 1/2 pints of DEF 6 plus 0.066 to 0.1 lb of Dropp 50 WP for defoliation and inhibition of secondary growth (regrowth). Tank mix activity is maximum when 60% of more bolls are open and the mean 24-hour temperature before and after application is above 60° F. Adverse conditions may require 1) use of the maximum dosage, 2) a second application or 3) longer time for complete defoliation. Mix DEF 6 and Dropp 50 WP combinations in the following order: 1) water, 2) Dropp 50 WP (as per label), 3) after Dropp 50 WP has completely dispersed add DEF 6 and 4) adjuvant (if used). Do not apply this combination to immature cotton (< 60% open boll) or at higher than recommended use rates as desiccation and leaf freezing may occur. When used in citrus growing areas, observe buffer zones restrictions. Refer to the Dropp 50 WP label for additional precautions, restrictions or comments.
Accelerate Boll'd Cotton Aide CottonQuik Ethephon 6 Finish GK Prep Prep PC Prep SuperBoll	Tank mix with DEF 6 at 1 to 1 1/2 pints per acre for enhanced speed of defoliation and cotton boll opening. Refer to the tank mix partners label for the use rates, precautions, restrictions and additional comments.
Cyclone Ginstar Harvade Quik Pic Starfire	Tank mix with DEF 6 at 1 to 1 1/2 pints per acre for enhanced desiccation of cotton and certain weed species. Refer to the tank mix partners label for use rates, precautions, restrictions and additional comments.
Roundup Roundup Ultra	In states where permitted, tank mix with DEF 6 at 1 to 1 1/2 pints per acre for enhanced defoliation, regrowth control and additional late season weed control. Refer to the tank mix partners label for use rates, precautions, restrictions and additional comments.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place, away from open flame and extreme heat, and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking invert to prevent leakage.

If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type materials and dispose of as directed below. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer Kansas City Emergency Response Telephone No. is 800-414-0244, or contact Chemtrec at 800-424-9300.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. 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.

Container Disposal:

Non-refillable Metal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by any procedures approved by state and local authorities.

Non-refillable Plastic: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Returnable Refillable Sealed Container: Do not rinse container. Do not break seals. Replace the dust cover cap and return container intact to point of purchase.

Harvade® is a trademark of Uniroyal Chemical Corporation.
Roundup®/Roundup Ultra® are trademarks of Monsanto Company.
Prep® and Finish® are trademarks of Rhone-Poulenc Ag Company.
Cyclone® and Starfire® are trademarks of Zeneca Inc. Ag Products.
Cotton Aide® is a trademark of Monterey Chemical Company.
Accelerate® is a trademark of Elf Atochem North America, Inc.
Quik Pic® is a trademark of United Agri Products.
CottonQuik® and Super Boll® are trademarks of Griffin.
Dropp® and Ginstar® are trademarks of Agrevo USA Company.
Ethephon 6® is a trademark of Micro Flo Company.
Boll'd® is a trademark of Riverside Terra.
GK Prep® is a trademark of Gold Kist Inc.
Prep PC® is a trademark of Tri-State.

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IMPORTANT

Before using this product, read and carefully observe the directions, cautionary statements and other information appearing on the product packaging label. This product is sold subject to the Conditions of Sale set forth on the container label.

