15905 -		tina form.	03/11/=	2005	- 5 Form Appr	oved	. OMB No.	2070-006	
\$epa	United States			tion Agency			Registra Amenda Other		OPP Identifier Number
Application for Pesticide - Section I									
1. Company/Product Number 5905-496			2. EPA Product Menager					3. Pr	oposed Classification
4. Company/Product (Name) 1.5LB Benfluralin EC			PM#						
5. Name and Address of Applicant (Include ZIP Code) Helena Chemical Company 225 Schilling Boulevard, Suite 300 Collierville, Tennessee 38017			6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No Product Name						
			Sectio	n - 11					
Amendment - Explain below.           Resubmission in response to Agency letter dated           Notification - Explain below.			Final printed labels in repsons Agency letter dated "Me Too" Application. Other - Explain below.			e to	MAR 1 1 2005		
<b>Explanation:</b> Use addition Other Revisions Notification of Other Revision 152.46, and no other change: U.S.C. Sec. 1001 to willfully r and 40 CFR 152.46, this proc	s per PR Notice 98-10. s have been made to the nake any false statemen	This notificati e labeling or to nt to EPA. I fu	on is consisten he confidential s inther understar I may be subje	t with the statemen nd that if ct to enfo	t of formula this notificat	of thi	is product. I not consiste	understand int with the	that it is a violation of 18 terms of PR Notice 98-10
			Sectior	<u>) - 111</u>				<b>.</b>	
1. Material This Product Will	1			<u> </u>			<b>r</b>		· · · · · · · · · · · · · · · · · · ·
Child-Resistant Packaging Yes Vo	Unit Packaging Yes V		Water Soluble Packaging Yes V No				2. Type of	Container Metal Plastic Glass	
<ul> <li>Certification must be submitted</li> </ul>	If "Yes" Unit Packaging wgt.	No. per container	lf "Yes" Package w				pecify)		
3. Location of Net Contents Information     4. Size(s) Retains       [V]     Label     Container			tail Container     5. Location of Label Directions       Image: Container     Image: Container       Image: Container     Image: Container       Image: Container     Image: Container						ns
6. Manner in Which Lebel is Affixed to Product Self Adhesive Uithograph Stenciled Other									
		**	Section	- IV					
1. Contact Point (Complete )	items directly below fo	or identificatio	on of individual	to be co	ontacted, if	песе	assary, to pr	ocess this	application.)
Name Mandy K. Styles			Title Product Reg	istratior	n Superviso	or		Telephone 901/752-4	a No. (Include Area Code) 1421
I certify that the staten I acknowledge that any both under applicable I	y knowlinglly false or n		all attachmen						6. Deta Application Received (Stamped)
2. Signature			3. Title Product Registration Supervisor						
4. Typed Name			5. Date						
Mandy K. Styles			3/1/2005						
PA Form 8570-1 (Bay 3.94)	Designe editions are	nhaalata						·······	Volley Applicant Conv

4) Previous editions are

	NOTIFIC	CITAC	N 2/2
1.5 LB. BENFLURALIN E.C.	. 1	1 200	Have the product container with you when calling a poison
Herbicide	MAR 1	1 200	
ACTIVE INGREDIENT:			emergency, call ChemTrec at 800-424-9400.
Benfluralin: N-butyl-N-ethyl-a,a,a-trifluoro-2,6-dinitro	-D-		NOTE TO PHYSICIAN
toludine			Probable mucosal damage may contraindicate gastric lavage.
INERT INGREDIENTS:	80.9%		Ccntains petroleum distillates - may pose aspiration
TOTAL		•	pneumonia hazard.
This product contains 1.5 pounds benfluralin per gal			SEE INSIDE PANEL FOR ADDITIONAL PRECAUTIONARY
KEEP OUT OF REACH OF CHILDREN			STATEMENTS
DANGER – PELIGRO			EPA REG. NO. 5905-496 NET CONTENTS: EPA EST. NO
Si usted no entiende la etiqueta, busque a alguie	n para	٠	EFA EST. NO
que se la explique a usted en detalle.			MANUFACTURED BY
(If you do not under stand the label, find someon	e to		HELENA CHEMICAL COMPANY
explain it to you in detail.			225 SCHILLING BOULEVARD, SUITE 300
PRECAUTIONARY STATEMENTS			COLLIERVILLE TENNESSEE 38017
Hazards to Humans and Domestic Animals			
DANGER - PELIGRO			PERSONAL PROTECTIVE EQUIPMENT (PPE)
Corrosive. Causes eye damage. Do not get in eyes			Some materials that are chemical-resistant to this product are
goggles or face shield when handling concentrate. H			listed below. If you want more options, follow the instructions
swallowed, inhaled or absorbed through the skin. A			for category G on an EPA chemical resistance category
contact with skin, eyes, or clothing. Avoid breathing			selection chart.
spray mist. Prolonged or frequently repeated skin or	ontact may		
cause allergic reactions in some individuals.			Applicators and other handlers must wear:
FIRST AID			Long-sleeved shirt and long pants
IF IN EYES:			<ul> <li>Chemical-resistant gloves, such as Barrier Laminate or Viton Rubber</li> </ul>
Hold eye open and rinse slowly an	d gently		- Shoes plus socks
with water for 15-20 minutes.			Protective eyewear
<ul> <li>Remove contact lenses, if present</li> </ul>	after the		T Totoolive Cycrical
first 5 minutes, then continue rinsing eye.			Engineering Control Statement
Call a poison control center or doc	tor for		When handlers use closed systems, enclosed cabs, or aircraft
treatment advice.	·		in a manner that meets the requirements listed in the Worker
IF SWALLOWED:			Protection Standard (WPS) for agricultural pesticides (40 CFR
Call a poison control center or doctor			170.240(d)(4-6), the handler PPE requirements may be
immediately for treatment advice.			reduced or modified as specified in the WPS."
<ul> <li>Have person sip a glass of water it</li> </ul>	f able to		
swallow.			IMPORTANT: When reduced PPE is worn because a closed
Do not induce vomiting unless told	to do so		system is being used, handlers must be provided all PPE
by the poison control center or doctor.			specified above for "applicators and other handlers" and have
Do not give anything by mouth to an			such PPE immediately available for use in an emergency, such
unconscious or convulsing person.			as a spill or equipment break-down."
IF INHALED:		Г	USER SAFETY RECOMMENDATIONS
Move person to fresh air.			Users should:
If person is not breathing, call 911			- Wash hands before eating, drinking, chewing gum,
ambulance, then give artificial respiration, prefera			using tobacco or using the toilet.
mouth-to-		ĺ	<ul> <li>Remove clothing immediately if pesticide gets inside.</li> </ul>
mouth, if possible.	tor for		Then wash thoroughly and put on clean clothing.
Call a poison control center or doc further treatment advice.			- Remove PPE immediately after handling this product.
			Wash the outside of gloves before removing. As
IF ON SKIN OR CLOTHING:			soon as possible, wash thoroughly and change into
Take off contaminated clothing	<b>,</b> ,		clean clothing.
Rinse skin immediately with plenty	of water	L	·
for 15-20 minutes.	han fr -		ENVIRONMENTAL HAZARDS
Call a poison control center or doctor for			This product is toxic to fish. Do not contaminate any body of
treatment			water by direct application, cleaning of equipment or disposal
HOT LINE NUBMER			of wastes.

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## PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

## 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 away 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 agency responsible for pesticide regulation.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal. Avoid freezing. Store above 40°F.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticides, 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, of the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

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

# 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 12 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 Chemical Resistant Gloves Category G

Shoes plus socks Protective eyewear

## USE PRECAUTIONS

Applied according to directions and under normal growing conditions, **1.5 LB. BENFLURALIN E.C.** will not harm the treated crop. Over application may result in stunting, crop injury or soil residue. Uneven application or improper soil incorporation of **1.5 LB. BENFLURALIN E.C.** can result in erratic weed control or crop injury. Seedling disease, cold weather, deep planting, excessive moisture, high salt' concentration or drought may weaken crop seedlings and increase the possibility of damage from **1.5 LB**. **BENFLURALIN E.C.** Under these conditions, delayed crop development or reduced yields may result.

In the arid, irrigated areas of the Western United States – Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming – certain crops are susceptible to injury when planted in soil previously treated with **1.5 LB**. **BENFLURALIN E.C.** To avoid such injury, do not plant wheat, barley, rye, other grasses, or onion within 10 months following a **1.5 LB. BENFLURALIN E.C.** application. Milo (grain sorghum), corn, oats, spinach, red beet, sugar beet, other root crops should not be planted within 12 months following a **1.5 LB. BENFLURALIN E.C.** application.

## **GENERAL INFORMATION**

**1.5 LB. BENFLURALIN E.C.** is a preemergence herbicide which is soil incorporated to provide season long control of many annual grasses and broadleaf weeds throughout the growing season. Incorporation of **1.5 LB. BENFLURALIN E.C.** helps assure effective weed control. **1.5 LB. BENFLURALIN E.C.** controls weeds as they germinate.

#### SOIL TEXTURE GUIDE

The amount of 1.5 LB. BENFLURALIN E.C. applied will vary with the soil texture. A fine textured soil generally requires more 1.5 LB. BENFLURALIN E.C. than a coarse textured soil. 1.5 LB. BENFLURALIN E.C. is not recommended for use on muck or other soils high in organic matter content.

Refer to the following table to determine soil classification. Soil Texture Soil Classification Coarse Sand Loamy Sand Sandy Loam Medium Loam Silty clay loam\* Silt loam Silt Sandy clay loam\* Fine Clay Clay loam Silty clay loam\* Silty clay Sandy clay Sandy clay loam\*

\*Silty clay loam and sandy clay loam soils are transitional soils and may be classified as either medium or fine textured soils. If silty clay loam or sandy clay loams are predominately sand or silt, they are usually classified as medium textured soils; if predominately clay, they are usually classified as fine textured soils.

#### SOIL PREPARATION

Destroy existing weeds before a 1.5 LB. BENFLURALIN E.C. application. Chop and thoroughly mix crop residues into the soil to a depth of 4 to 6 inches by deep plowing or discing before a 1.5 LB. BENFLURALIN E.C. application. Use machinery that breaks up large clods before a 1.5 LB. **BENFLURALIN E.C.** application.

#### **GENERAL MIXING DIRECTIONS**

Use the following instructions for mixing 1.5 LB. BENFLURALIN E.C. Liquid Concentrate (L.C.) alone in water and tank mixed in water.

General Mixing Instructions in Water Alone: Start with a clean sprayer. Fill the spray tank 1/3 to 1/2 full with clean water. Start agitation. Add the correct quantity of 1.5 LB. BENFLURALIN E.C., continue agitation, and finish filling the tank.

General Tank Mix Instructions: Vigorous, continuous agitation is required for all tank mixes. (Sparger pipe agitators generally provide the best agitation in spray tanks). During filling, to prevent foaming, avoid stirring or splashing air into the mixture by placing the end of the fill pipe below the surface of the water in the spray tank. Do not allow the mixture to siphon back into the water source.

Mixing Order: Fill the tank 1 /4 to 1 /3 full with clean water. Start the agitation. Add dry flowables (DF), flowables (F), liquids (L), aqueous suspensions (AS), or wettable powders (WP) to the water and agitate until the product(s) are completely dispersed in the water. Allow additional missing and dispersion time when using DF products. Continue agitation and fill tank 3 /4 full. Add the 1.5 LB. BENFLURALIN E.C., mix thoroughly, then add any solutions (S), agitate and finish filling. Maintain agitation from filling through application. If spraying and agitation must be stopped before the tank is empty, the material may settle to the bottom. In this case, it is important to resuspend all of the material in the bottom of the tank before continuing the spray application. Sometimes it is more difficult to resuspend settled material than it is to suspend tham originally. A sprager agitator is particularly useful for this purpose.

Read and carefully follow all label instructions for each material added to the tank. Premixing dry and flowables formulations with water (slurrying) and pouring the slurry through a 20 or 35 mesh wetting screen in the top will help assure good initial dispersion in the tank water. Line screens in the tank should be no finer than 50 mesh (100 mesh is finer than 50 mesh).

If a buildup of material is seen on the walls of the spray tank, 4/8 wash the tank with soapy water between fillings. Rinse and continue the spraying operation. Clean tank, lines, and screens thoroughly after use.

#### APPLICATION DIRECTIONS

Apply 1.5 LB. BENFLURALIN E.C. anytime after January 1 when the soil can be worked. Add the recommended amount of 1.5 LB. BENFLURALIN E.C. to clean water in the spray tank during the filling operation. (See General Mixing Instructions). Apply in 5 to 40 gallons of spray volume per acre (broadcast basis). Use any properly calibrated low pressure herbicide sprayer that will apply the spray uniformly. As the amount of spray volume decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily to insure proper calibration and uniform application. Apply 1.5 LB. BENFLURALIN E.C. to the soil surface and incorporate within the recommended time.

1.5 LB. BENFLURALIN E.C. should not be applied to soils which are wet or are subject to prolonged periods of flooding as poor weed control may result.

## INCORPORATION DIRECTIONS

1.5 LB. BENFLURALIN E.C. must be incorporated one time within 8 hours after application, except in certain areas of the Western United States (see Special Note below). A second incorporation is required with most equipment (see below). If 1.5 LB. BENFLURALIN E.C. is applied to a wet, warm soil surface or if the wind velocity is 10 mph or higher, variable weed control may result from delaying the first incorporation beyond 8 hours in the Eastern United States and 4 hours in the Western United States. Incorporation should place the 1.5 LB. BENFLURALIN E.C., into the top 2 to 3 inches of the final seedbed. Place 1.5 LB. BENFLURALIN E.C. to a depth of 3 inches for more effective control of Texas panicum. Generally, incorporation equipment will mix 1.5 LB. BENFLURALIN E.C. approximately half as deep as the equipment is run. For example, a disc running 4 inches deep will incorporate 1.5 LB. BENFLURALIN E.C. into approximately the top 2 inches.

SPECIAL NOTE: In the Western United States, extremely high temperatures and intense sunlight may be present at the time of application. Therefore, 1.5 LB. BENFLURALIN E.C. must be incorporated into the soil within 4 hours after application to prevent loss of activity.

#### INCORPORATION EQUIPMENT

Use machinery that mixes 1.5 LB. BENFLURALIN E.C. thoroughly with the soil. Shallow incorporation with implements set to mix 1.5 LB. BENFLURALIN E.C. less, than 2 inches deep in the final seedbed may result in erratic weed control. Use of incorporation equipment not listed below may result in poor or erratic weed control and/or crop injury.

#### Recommended equipment includes:

Disc set to cut 4 to 6 inches deep and operated in 2 different directions at 4 to 6 mph. A tandem or double disc operated one time does not provide adequate incorporation.

Power take off driven equipment (tillers, cultivators, hoes) set to incorporate. **1.5 LB. BENFLURALIN E.C.** in the top 2 to 3 inches of the final seedbed. P.T.O. driven equipment should be operated one time at a speed not greater than 4 mph.

#### **PRECAUTION:**

Power take off driven equipment used alone as the incorporation implement in coarse soils may cause an uneven distribution of **1.5 LB. BENFLURALIN E.C.** This occurs when the wheel track depression is below the penetrating depth of the tines on the tiller. This may result in an excessive amount of **1.5 LB. BENFLURALIN E.C.** in the tractor wheel depression area and poor weed control in the diluted areas.

Where this condition exists, a tandem disc should be used on coarse soils for the incorporation of 1.5 LB. BENFLURALIN E.C.

#### **CULTIVATION AFTER PLANTING**

Soil treated with 1.5 LB. BENFLURALIN E.C. may be shallowly cultivated or rotary hoed without reducing the weed control activity of 1.5 LB. BENFLURALIN E.C. Do not cultivate deeper than the 1.5 LB. BENFLURALIN E.C. treated layer of soil since this may bring untreated soil to the surface and poor weed control may result.

# WEEDS AND GRASSES CONTROLLED BY BALAN

**1.5 LB. BENFLURALIN E.C.** will not control established weeds.

#### GRASSES CONTROLLED

Annual blue grass Barnyardgrass Watergrass Broadleaf signalgrass (see Page 3 for special instructions) Crabgrass Large crabgrass Smooth crabgrass Crowfootgrass Fall panicum Spreading panicgrass (See Page 3 for special instructions) Foxtails Bottlegrass Bristlegrass Giant foxtail Green foxtail Pigeongrass Robust foxtail Yellow foxtail Goosegrass Silver craborass Silvergrass Wiregrass Yardorass Johnsongrass Seedling only Junglerice Ryegrass Annual ryegrass Italian ryegrass Sandbur Burgrass

(Poa annua) (Echonochloa spp.)

(Brachiaria platyphylla)

(Digitaria spp.)

(Dactyloctenium aegyptium) (Panicum dichotomiflorum)

~

(Setaria spp.)

(Eleusine indica)

(Sorghum halepense)

(Echinochloa colonum) (Lolium multiflorum)

(Cenchrus incertus)

Texas panicum Buffalograss Colorado grass

#### BROADLEAF WEEDS CONTROLLED

Carpetweed Chickweed Florida oursiane Florida pursley Mexican clover Pursley Knotweed Lambsquarters Pigweeds Carelessweed Prostrate pigweed Redroot Rough pigweed Spiny pigweed Purslane Redmaids

(Panicum texanum)

(Mollugo verticillata) (Stellaria media) (Richardia scabra)

(Polygonum aviculare) (Chenopodium album) (Amaranthus spp.)

(Portulaca oleracea) (Calandrinia caulescens)

#### **CROP RECOMMENDATIONS**

These recommendations are given as the broadcast rate per acre of **1.5 LB. BENFLURALIN E.C.** For band application, use proportionately less.

# ALFALFA, BIRDSFOOT TREFOIL, CLOVER (Alsike, Ladino, Red)

Apply and incorporate 1.5 LB. BENFLURALIN E.C. before seeding at a broadcast rate per acre of 3 quarts on coarse and medium soils and 4 quarts on fine soils. Do not apply after seeding.

#### LETTUCE (Direct Seeded)

Apply and incorporate **1.5 LB. BENFLURALIN E.C.** before seeding at a broadcast rate per acre of 3 quarts on coarse and medium soils and 4 quarts on fine soils. Do not apply after seeding.

#### APPLICATION WITH DRY BULK FERTILIZER

Dry bulk fertilizer may be impregnated or coated with 1.5 LB. BENFLURALIN E.C. Application of dry bulk fertilizer impregnated with 1.5 LB. BENFLURALIN E.C. has provided weed and grass control equal to the same rates of 1.5 LB. BENFLURALIN E.C. applies in liquid carriers.

Follow **1.5 LB. BENFLURALIN E.C.** label recommendations regarding rates per acre, crops, incorporation directions, special instructions, cautions and special precautions.

Individual state regulations relating to dry bulk fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the fertilizer and chemical mixture.

#### LIMITATIONS

Apply a minimum of 200 pounds per acre of dry fertilizer impregnated with 1.5 LB. BENFLURALIN E.C. at the recommended rate. Most dry fertilizers can be used for 1.5 LB. BENFLURALIN E.C. impregnation. When coated ammonium nitrate and limestone are used alone, do not impregnate with 1.5 LB. BENFLURALIN E.C. These materials will not absorb the herbicide. Blends containing mixtures of these materials can be impregnated.

#### IMPREGNATION

Use any closed drum, belt, ribbon or other commonly used dry bulk fertilizer blender. Nozzles used to spray the **1.5 LB**. **BENFLURALIN E.C.** onto the fertilizer should be placed to provide uniform spray coverage. If less than 6 pints of **1.5 LB**. **BENFLURALIN E.C.** are mixed per ton of fertilizer, add water to the **1.5 LB**. **BENFLURALIN E.C.** to give a total volume of at least 6 pints per ton.

## RATES

Check the crop section to determine the rate per acre of 1.5 LB. BENFLURALIN E.C. Calculate the amount of 1.5 LB. BENFLURALIN E.C. to be impregnated on a ton of dry bulk fertilizer based on the amount of fertilizer which will be applied per acre.

 Quarts of 1.5 LB. BENFLURALIN E.C. X 2000 =
 Quarts of Per Ton

 Per Acre
 Ibs. Fertilizer
 of Fertilizer

## APPLICATION

Spread the fertilizer/chemical normally with a properly calibrated applicator. Be certain the material is applied uniformly to the soil surface.

## INCORPORATION

Follow recommended incorporation procedures for 1.5 LB. BENFLURALIN E.C.

## APPLICATION WITH LIQUID FERTILIZERS

**1.5 LB. BENFLURALIN E.C.** may be mixed with most liquid fertilizer materials. Combination of **1.5 LB. BENFLURALIN E.C.** with solutions and suspension type fertilizers has provided weed and grass control equal to the same rates of **1.5 LB. BENFLURALIN E.C.** applied in water. Follow **1.5 LB. BENFLURALIN E.C.** label recommendations regarding rates per acre, crops, incorporation directions, special instructions, cautions and special precautions.

Individual state regulations relating to liquid fertilizer mixing, registration, labeling and applications are the responsibility of the individual and/or company selling the fertilizer and chemical mixture.

## LIQUID FERTILIZER MIXING INSTRUCTIONS

Liquid Concentrate in Liquid Fertilizer: Liquid concentrates, such as 1.5 LB. BENFLURALIN E.C., can be mixed with liquid fertilizers. In all cases, continuous agitation is required to prevent the 1.5 LB. BENFLURALIN E.C. from rising to the surface as an oily layer. When necessary, (see Liquid Fertilizer Compatibility Test below), a compatibility agent can be used to cause the 1.5 LB. BENFLURALIN E.C. to emulsify properly (i.e., have a milky appearance rather than oily layer). The use of compatibility agents is especially important when tank mixing liquid concentrates (LC) with dry flowables (DF), wettable powders (WP), flowables (F), liquids (L), aqueous suspensions (AS), or solutions (S) in liquid fertilizer. If the emulsion is mot properly formed, and the L.C. rises to the surface of the fertilizer as an oil ("oils out"), the oil may combine with the wettable powder, flowable, or suspension to form oily curds (viscous phase) which is difficult to redisperse. Any one of the compatibility agents listed below if helpful in causing liquid concentrates to form non-oiling mixtures with liquid fertilizers. These compatibility agents can be used at rates as low as 1 1/2 to 2 pints per ton of liquid fertilizer and should be mixed well with the fertilizer before adding the liquid concentrate. Read the label on the compatibility agent and follow the directions.

- 1. Sponto 168D (Witco Chemicals Co., Chicago, IL)
- 2. Compat (Farm Chemical, Inc., Aberdeen, NC)
- 3. Unite (Hopkins Ag Chemical, Madison, WI)
- 4. T-Mulz 734-2 (Thompson-Haywars Chemical Co.)
- 5. Rigo Compatibility Agent (Rigo Company, Buckner, KY)
- 6. Amoco Spray Mate<sup>™</sup> (Amoco Oil Co., Chicago, IL)
- 7. Kem-Link (Universal Coop, Minneapolis, MN)

Each of the above is a phosphate ester type surfactant designed to be used with liquid fertilizers. They usually do not work well as compatibility agents in tank mixtures in plain water.

## Testing for Tank Mix Compatibility in Liquid Fertilizers:

Liquid concentrates alone or in tank mixture with dry flowables (DF), wettable powders (WP), liquids (L), flowables (F), aqueous suspensions (AS), or solutions (S) may not combine properly with some fluid fertilizer materials. Small quantities should always be tested before full-scale mixing. This will determine whether a compatibility agent is needed, and which agent does the best job. The seven agents listed above have been thoroughly tested. There are many other surfactants on the market which were not designed for use with liquid fertilizers. Use the following test to select the correct agent for your mixture.

- 1. Put 1 pint of the liquid fertilizer in a quart jar.
- Add 1 to 4 teaspoons of the DF, WP, L, F, or AS formulation (depending on the recommended rate per acre) to the liquid fertilizer. Close jar and agitate until dispersed evenly in the fertilizer. If the materials do not disperse well, it may be necessary to slurry the chemicals in water before adding to the fertilizer.
- 3. After dispersing the materials (Step 2), add 3 to 4 teaspoons of the 1.5 LB. BENFLURALIN E.C. to the jar and shake well. Add solution herbicides to the mixture last and agitate. Observe the jar for about 10 minutes. If the materials rise to the surface and form a thick layer (oily curds) which will not redisperse when agitated, a compatibility

agent is needed. If the mixture is easily redispersed to its original state with slight agitation, no agent is needed but good agitation must be provided in the fertilizer spray tank.

4. If the need for a compatibility agent is shown in Step 3; using a clean quart jar, start at Step 1 above, add 1 /2 teaspoon of the compatibility agent to the liquid fertilizer, mix well, then repeat Steps 2 and 3.

An effective compatibility agent will cause the mixture to remain uniformly mixed with little or no separating or oil rising to the surface for one half hour or longer. If slight separation does occur, 2 to 3 inversions of the jar should give a uniform remix. If oily curds form which will not redisperse, more agent or another agent should be tried.

Use a clean jar for each test. The compatibility mixture will have a uniform appearance and will be relatively easy to keep mixed with gentle agitation of the jar.

#### **APPLICATION**

Spread the fertilizer/chemical mixture normally with a properly calibrated applicator. Be certain the material is applied uniformly to the soil surface.

#### INCORPORATION

Follow recommended incorporation procedures for 1.5 LB. BENFLURALIN E.C.

#### CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

Read the Conditions of Sale - Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be

limited to, at Helena Chemical Company's election, one of the 7/8 following:

- 1. Refund of the purchase price paid by buyer or user for product bought, or
- 2. Replacement of the product used

To the extent allowed by law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.

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#### HELENA CHEMICAL COMPANY 225 Schilling Blvd., Suite 300 Collierville, Tennessee 38017 Telephone: 901/761-0050

March 1, 2005

U.S. Environmental Protection Agency Document Processing Desk (NOTIF) Office of Pesticide Programs (7504C) 1801 South Bell Street Crystal Mall #2, Room 266A Arlington, VA 22202-4501

RE: Notification to Add Other Revisions

To Whom It May Concern,

Enclosed, you will find Helena Chemical Company's Notification for numerous products. Helena has updated the copyright company name, all trademarks, and registered trademarks from Helena Chemical Company to Helena Holding Company. This has been done on the following products:

iono mang	producto:				
Helena V	Nettable Sulphur	5905-289			
Fyfanon	25WP	5905-293			
Sol Oil 9	7	5905-294			
Sol Oil P	lus	5905-302			
Helena C	Citrusperse Sulfur	5905-350			
	preme Spray	5905-368			
	90% Sulfur Dust	5905-422			
Helena L	iquid Sulfur Six	5905-437			
	ium Chlorate Defoliant Desiccant	5905-461			
Atrazine	4L	5905-470			
Helena E	Bravo S	5905-472			
Helena 4	I.8lb. Diuron Flowable Herbicide	5905-482			
Helena 3	35lb. Liquid Copper Concentrate	5905-483			
	Z 4/4 Algicide/Herbicide	5905-486			
Dimetho	ate 4EC	5905-493			
Setre Flu	ometuron 80WP Herbicide	5905-494			
Setre Pro	owl Herbicide + Propanil	5905-495			
Setre 1.5	5lb. Benfluralin EC	5905-496			
5lb. Dime	ethoate Systemic Insecticide	5905-497			
	nap Low Volatile 4-D Herbicide	5905-498			
This should also be noted on all alternate brand names of the master labels.					

In support of these Notifications, you will find the following:

EPA Form 8570-1 1 copy of the revised label highlighted

If you have any questions, do not hesitate to call me at (901) 752-4420 or hy fax at (901) 758-1694. Thank you for your assistance in this matter.

Sincerely,

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Mandy K. Styles Product Registration Supervisor