#### WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Ms. Julie T. Tran
Amvac Chemical Corporation
4695 MacArthur Court, Suite 1250
Newport Beach, CA 92660

NOV 3 0 2007

Dear Ms. Tran:

Subject:

Avenge SG Wild Oat Herbicide

Label Amendment to Update Company Information and First Aid Statements

EPA Registration No. 5481-538 Submission Dated: August 29, 2007

The labeling referred to above, submitted in accordance with registration under the Federal Insecticide, Fungicide, and Rodenticide act, as amended is acceptable with the following provision

- 1. Replace "Waterproof gloves" with "Chemical resistant gloves" as specified in the Difenzoquat Reregistration Eligibility Decision (RED) (see attachment).
- 2. Please submit one (1) copy of your final printed labeling before you release the product for shipment.

Sincerely,

Kathryn V. Montague

Acting Product Manager (23)

Herbicide Branch

Registration Division (7505P)

# AVENGE<sup>TM</sup> SG

### WILD OAT HERBICIDE

FOR USE IN BARLEY AND WHEAT

ACTIVE ING	, , , ,	
Difenzoquat n	nethyl sulfate:	
	,5-diphenyl-1 <u>H</u> -pyrazolium methyl sulfate	
	EDIENTS:	
TOTAL	-100.0% ccc	
	(1 pound contains 0.64 lb. of difenzoquat cation)	
	KEEP OUT OF REACH OF CHILDREN	
	DANGER/PELIGRO	
Si usted no en	tiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you de not	
	understand this label, find someone to explain it to you in detail.)	
	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 first 5 minutes, then continue ringer TED	
	eye. with COMMENT	'C'
	Call a poison control center or doctor for treatment advice.      In EPA Letter Date:	1·
If swallowed:	Call a poison control center or doctor immediately for treatment advice	
	Have person sip a glass of water if able to swallow.  Under the rederal Processing of the r	1
*	• Do not induce vomiting unless told to do so by a poison control cetimesicide and Rodenticide A	۸
	doctor as amended, for the pesticide	
	• Do not give anything by mouth to an unconscious person.  registered under EFA Reg. No.	Э.
If inhaled:	• Move person to fresh air. 5481-538	
	• If person is not breathing, call 911 or an ambulance, then give artificial	_
	respiration, preferably by mouth, if possible.	
	Call a poison control center or doctor for further treatment advice.	
If on skin or	Take off contaminated clothing.	
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 produc	t 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:	
	CHEMTREC1-800-424-9300	
Other: AMVAC		
	NOTE TO PHYSICIAN	
Probable mucos	al damage may contraindicate the use of gastric layage.	

**NET CONTENTS:** As Marked On Container

SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE.



4100 E. Washington Blvd.
Los Angeles, CA 90023 U.S.A
1-323-264-3910 • www.amvac-chemical.com

EPA Reg. No. 5481-538

EPA Est. No.

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### DANGER!

CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. MAY BE FATAL IF SWALLOWED.

**DO NOT** get in eyes or on clothing. Harmful if absorbed through skin or inhaled. Avoid contact with skin. Avoid breathing dust. Remove contaminated clothing and wash clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear (goggles or face shield)

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 and maintaining PPE. If no such instructions for washables, 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.

#### USER SAFETY RECOMMENDATIONS

#### Users should:

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

#### **ENVIRONMENTAL HAZARDS**

**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 when weather conditions favor run-off and/or drift from target area. **DO NOT** contaminate water when disposing of equipment washwaters.

#### **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.

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

This label must be in the possession of the user at the time of pesticide application.

#### 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 48 hours.

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

- Coveralls
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

#### **GENERAL INFORMATION**

AVENGE SG is a selective herbicide for the postemergence control of wild oats in barley and wheat. See the section DIRECTIONS FOR USE for varietal restrictions.

If broadleaf weeds must also be controlled in these crops, AVENGE SG may be tank mixed with certain broadleaf herbicides which are listed under the HOW TO USE AVENGE SG PLUS BROADLEAF HERBICIDES section. AVENGE SG alone or in combination can be applied postemergence by ground equipment or aircraft.

Maximum control of wild oats in barley and wheat with AVENGE SG alone, or in combination, is obtained when temperature, moisture, fertility and cultural practices provide favorable conditions for plant growth. When applied under poor conditions for plant growth such as cold/wet or hot/dry weather or low soil fertility, AVENGE SG can produce yellowing or slight tip burn of barley or wheat. However, recovery is rapid when good growth conditions return. A slight reduction of yield may result under conditions described above.

Observe all cautions and limitations on this label and the labels of products used in tank mixtures with AVENGE SG. The use of AVENGE SG not consistent with this label can result in injury to crops, animals or persons. Keep containers closed to avoid spills and contamination.

WHERE TO USE AVENGE SG: AVENGE SG alone or in combination can be applied to:

**BARLEY:** All Varieties

WHEAT: SEE TABLE BELOW

WHEAT TYPE	YES		NO
Fall and Winter Seeded	All	EXCEPT	Borah, WS 1809, WS 1877, WS 1859, Klasic, Probrand 771, Tadinia, and Mexican durums
Soft-White Spring Seeded	All		
Spring Seeded Durums	All	EXCEPT	Edmore, Fjord, Kyle, Laker, Lakota, Lloyd, Regal, Renville Vic, Wakooma, Wascona, Westbred 803, and Westbred 881
Hard Red Spring Seeded	Amidon, Apex, Baart, Benitō, Bronze Chief, Buckshot, Butte, Butte 86, Canuck, Centa, Chester, Columbus, Copper, Coteau, Courtney, Era, Erik, Federation, Fjeld, Fortuna, Germain 444, Glenlea, Glennman, HY320, Katepwa, Kitt, Kodiak, Leader, Leif, McKay, Marberg, Marshall, Minnpro, Newana, Neepawa, NK(PB) 751, Norak, Norana, Olaf, Oslo, Pioneer 2369, Pioneer 2385, Pondera, Probrand 711, Probrand 715, Prodax, Rambo, Selkirk, Solar, Stoa, Success, Telemark, Vance, Victory, W 2502, Walera, Wheaton and		DO NOT apply to varieties of hard red spring wheat not listed

WHEN TO USE AVENGE SG: AVENGE SG or AVENGE SG/broadleaf tank mix combinations are to be applied when the majority of wild oat plants are in the 3- to 5-true leaf stage of growth (tillering). The timing of AVENGE SG application to wild oats frequently coincides with barley in the 2- to 7-leaf stage, spring-seeded wheat in the 5- to 6-leaf stage, and fall-seeded wheat in the 4-leaf to tillered stage of growth. To achieve maximum control, the growth stage of wild oats in each field to be treated should be examined frequently to determine the 3- to 5-true leaf stage (tillering) for proper timing of AVENGE SG application. Density of wild oats per square foot should also be determined to select the correct AVENGE SG application rate.

#### WILD OAT STAGES

(artwork)
3-true leaf stage

(artwork)
4-true leaf stage

(artwork)
5-true leaf stage

#### **EOUIPMENT APPLICATION INSTRUCTIONS**

The spray equipment must be clean and properly calibrated before treatments are applied. For best results, use flat fan nozzles, at pressures of 20 to 40 psi to achieve uniform spray distribution and minimize drift. **DO NOT** use flood jet nozzles. Keep the by-pass line on or near the bottom of the tank to minimize foaming. In ground applications, check nozzles for even distribution of spray droplets. In aerial applications, it is recommended that a flagman be located at each end of the field, or an automatic mechanical flagging unit be attached to the aircraft to ensure uniform aerial application and to avoid overlapping and possible crop injury.

#### **AVENGE SG APPLICATION**

**DO NOT** apply AVENGE SG when the flagleaf is exposed or crop injury may occur. **DO NOT** apply AVENGE SG if rain is predicted within 6 hours. **DO NOT** spray AVENGE SG when freezing temperatures are forecast or when plants are wet with dew or rain. **DO NOT** apply AVENGE SG or AVENGE SG tank mix combinations under severe conditions for plant growth such as drought, extreme temperature fluctuation, low soil fertility and plant disease.

Apply AVENGE SG alone and AVENGE SG plus broadleaf herbicide combinations in 5 to 20 gallons of water per acre by ground equipment or 3 to 10 gallons of water per acre by aircraft. **DO NOT** let spray drift onto adjacent crops.

#### HOW TO USE AVENGE SG ALONE

If wild oats are growing vigorously, select the proper application rate from the AVENGE SG Rate Recommendation Table (below) that corresponds to the population of wild oat plants per square foot in the field to be treated.

## ASSERT®/AVENGE SG TANK MIX OR ASSERT® SG/AVENGE SG TANK MIX FOR WILD OAT CONTROL

AVENGE SG may be tank mixed\* with ASSERT or ASSERT SG herbicides for the control of wild oats only. Consult the ASSERT and ASSERT SG labels for use directions, application rates and timing, state restrictions, precautions, and ASSERT or ASSERT SG recropping/rotation limitations.

\*DO NOT tank mix AVENGE SG with any product not registered in specific states of intended use.

#### HOW TO USE AVENGE SG PLUS BROADLEAF HERBICIDES

AVENGE SG may be tank mixed\* with the following broadleaf herbicides:

2,4-D amine or ester

Ally®

Bromoxynil

Diomonymi

Bromoxynil plus MCPA

Curtail®

Curtail® M

Express®

Glean®

Harmony<sup>®</sup>

Harmony® Extra

MCPA amine or ester

Select the proper AVENGE SG application rate as described in the AVENGE SG Rate Recommendation Table (below). In order to assure optimum broadleaf weed control follow label recommendations of your broadleaf herbicide. Be sure that application timings coincide with application timings for AVENGE SG.

**DO NOT** apply AVENGE SG tank mix combinations when the crop flagleaf is exposed or crop injury may occur. **DO NOT** apply AVENGE SG tank mix combinations under stress conditions.

Follow the most restrictive precautions, directions, and recropping/rotation limitations that appear on combination partner product labels.

\*DO NOT tank mix AVENGE SG with any product not registered in specific states of intended use.

AVENGE SG Rate Recommendation Table

Wild Oat Population	Wild Oat Density Plants Per Square Foot	AVENGE SG Rate Per Acre (ounces)
Low	1-10	15-5/8 (15.625)
Moderate	11-25	18-3/4 (18.75)
High	More than 25	25

#### **GENERAL MIXING INSTRUCTIONS**

A NON-IONIC SURFACTANT CONTAINING AT LEAST 80% NON-IONIC SURFACTANT MUST BE USED WITH AVENGE SG HERBICIDE. Use a surfactant registered for application to growing crops. Add 4 pints non-ionic surfactant per 100 gallons (0.5% vol./vol.) of final spray tank volume. Use of crop oil concentrates is not recommended, except as may be described in separately published recommendations from Amvac Chemical Corporation. DO NOT use liquid fertilizer as a substitute for surfactant.

VIGOROUS AGITATION OF THE ENTIRE TANK INCLUDING THE TANK BOTTOM IS REQUIRED TO RAPIDLY DISSOLVE THE WATER SOLUBLE GRANULES OF AVENGE SG HERBICIDE. Poor agitation and dead spots in the tank will retard rapid and thorough dissolving of AVENGE SG herbicide.

#### PREMIXING INSTRUCTIONS (if tank agitation is inadequate)

Premix the desired amount of AVENGE SG in clean water in a clean polyethylene plastic bucket. Use polyethylene plastic or stainless steel stirring rod or water pressure to mix until the granules of AVENGE SG dissolve. **DO NOT** allow premix solution to contact skin or clothing. Add premix solution into the spray tank as described in Mixing Instructions. Thoroughly rinse all of the AVENGE SG into the spray tank.

#### MIXING INSTRUCTIONS

#### HOW TO MIX AVENGE SG ALONE

- 1. Fill tank three-quarters full with clean, filtered water. Start vigorous agitation that thoroughly mixes the entire tank, including the tank bottom.
- 2. Add AVENGE SG to the partially filled tank while agitating.
- 3. Continue filling the tank with clean water while maintaining agitation.
- 4. After the AVENGE SG is dissolved and the tank is full, add the **non-ionic surfactant** to the tank at a rate of 4 pints surfactant per 100 gallons (0.5% vol./vol.) of final spray solution (See section above for brands requiring greater percentage surfactant).
- 5. Allow mixture to agitate and recycle for at least five minutes before spraying.
- 6. Agitation must be continued until spraying is complete.

#### HOW TO MIX AVENGE SG PLUS BROADLEAF HERBICIDES

- 1. Fill tank three-quarters full with clean, filtered water. Start vigorous agitation that thoroughly mixes the entire tank, including the tank bottom.
- 2. Add the broadleaf herbicide first to the partially filled tank while agitating. Add the broadleaf herbicide(s) before adding AVENGE SG when using the ASSERT/AVENGE SG or ASSERT

- SG/AVENGE SG tank mix. NOTE: TO PREVENT MIXING PROBLEMS, TANK MIX PARTNERS MUST BE THOROUGHLY MIXED BEFORE ADDING AVENGE SG.
- 3. When the broadleaf herbicide is thoroughly mixed, add the AVENGE SG to the partially filled tank while continuing agitation.
- 4. Continue filling the tank with clean water while maintaining agitation.
- 5. After the AVENGE SG is dissolved and thoroughly mixed with the tank mix partners, and the tank is full, add the **non-ionic surfactant** at a rate of 4 pints per 100 gallons (0.5% vol./vol.) final spray solution (See section above for brands requiring greater percentage surfactant).
- 6. Allow mixture to agitate and recycle for at least five minutes before spraying.
- 7. Agitation must be continued until spraying is completed.

HOW TO MIX AVENGE SG PLUS ASSERT OR ASSERT SG HERBICIDES Follow mixing instructions on the ASSERT or ASSERT SG labels.

NOTE: DO NOT MAKE MORE THAN ONE APPLICATION OF AVENGE SG PER GROWING SEASON. DO NOT GRAZE TREATED FIELDS OR CUT TREATED FORAGE FOR SILAGE OR HAY. BARLEY OR WHEAT CAN BE REPLANTED IF LOSS OF CROP OCCURS. AFTER HARVEST, BARLEY AND WHEAT GRAIN AND STRAW FROM TREATED FIELDS CAN BE FED TO LIVESTOCK. ROTATION TO OTHER CROPS CAN BE MADE THE FOLLOWING YEAR, EXCEPT WHERE LIMITED BY TANK MIX PARTNER LABEL RESTRICTION.

#### STORAGE AND DISPOSAL

Stability of AVENGE SG is not affected by exposure to cold temperature. **DO NOT** contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. **DO NOT** reuse empty container.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. 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 FOR A BAG ATTACHED IN A BOX: Completely empty contents of bag into application equipment. Then dispose of container in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONTAINER DISPOSAL FOR REMOVAL BAG IN A BOX: Completely empty contents of bag into application equipment. Then dispose of bag in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Cardboard boxes may be offered for recycling if allowed by state and local authorities.

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

CONTAINER DISPOSAL FOR BULK: Return empty container for reuse.

#### LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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.

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

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