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1596-29

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NOV 18

Christopher E. Nelson, Ph.D.
Kemin Industries, Inc.
2100 Maury Street, Box 70
Des Moines, Iowa 50301

Dear Dr. Nelson:

Subject: Amendment - Revised Directions for Use
Grain Savor
EPA Reg No 8596-29
Your Submission Dated June 1, 1993

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comment below.

The net weight or measure of contents must appear on the label.

A stamped copy of your draft label is enclosed for your records. One copy of the finished labeling must be submitted prior to releasing the product for shipment.

Sincerely,

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Cynthia L. Giles-Parker
Product Manager (22)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

CONCURRENCES							
SYMBOL	H7505C						
SURNAME	D. Wilson						
DATE	11-6-93						

Copy

FRONT PANEL
CENTER COLUMN

Grain SAVOR™

brand

LIQUID

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PRODUCT 04310

A fungicide for the control of molds and fungi in stored corn, oats, barley, wheat or sorghum.

Active Ingredient

Propionic Acid 46%

Inert Ingredients 54%

Total 100%

8.18 lb (3.71 kg) Grain SAVOR per gallon.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

NOV 18 1985

FOR HIGH MOISTURE GRAIN
- EASY TO USE -

KEEP OUT OF REACH OF CHILDREN
DANGER

Under the Federal Insecticide
Fungicide and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

8596-29

Causes irreversible eye damage. Do not get in eyes. Wear goggles, face shield, or safety glasses. Avoid contact with skin, eyes or clothing. May be harmful if swallowed or absorbed through the skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Environmental Hazards

For terrestrial uses, 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 disposing of equipment wash waters.

STATEMENT OF PRACTICAL TREATMENT

If in eyes: Immediately flush with plenty of water for at least 15 minutes. Call a physician. If on skin: Wash with plenty of soap and water. Get medical attention. If swallowed: Do not induce vomiting. Rinse mouth immediately with abundant quantities of water, then promptly drink a large quantity of milk mixed with egg whites. If these items are not available, drink as much water as possible. Obtain medical attention immediately.

WARRANTIES

The manufacturer makes no warranties, expressed or implied, concerning this product or its use, which extend beyond the description on the face hereof. All statements made concerning this product apply only when used as directed.

PRODUCT COLOR CHANGE WILL NOT AFFECT PERFORMANCE.

For Agricultural Use Only.

NOTE: Grain SAVOR is not a substitute for good management.

EPA Registration No. 8596-29

EPA Est. 8596-IA-01

NET WT. 55 gallons (450 lb - 204.12 kg)

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DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read the attached GRAIN SAVOR product insert before any use of this product.

Grain SAVOR is a fungicide for the control of molds and fungi on grains. Use Grain SAVOR on corn, oats, barley, wheat and sorghum. Do not use on grain which might be used for seed or malting.

If grain is sold at higher moisture levels, grain may be discounted due to moisture levels.

Determine the moisture content of harvested grain and treat within four (4) hours of measurement. Do not use less than stated application rates. Application rates are in pounds per ton of Grain SAVOR for grain to be stored in covered (weatherproof) storage.

Use the KEMIFLO® applicator to apply Grain SAVOR. Calibrate the applicator using nozzle tips and flowmeter setting so as to apply the following:

RECOMMENDED RATE OF Grain SAVOR/TON OF MOIST CORN IN COVERED STORAGE

Duration	Moisture Content of Corn, Percent by Weight				
	Up to 14.9%	15 to 17%	18 to 20%	21 to 30%	31 to 35%
Up to 6 months*	2 lb/ton	4 lb/ton	12 lb/ton	18 lb/ton	24 lb/ton
Up to 12 months	3 lb/ton	6 lb/ton	18 lb/ton	24 lb/ton	30 lb/ton

* Not recommended if grain is to be kept in storage beyond May 1.

RECOMMENDED RATE OF Grain SAVOR/TON OF MOIST CORN IN OPEN STORAGE**

Moisture Content of Grain, Percent by Wt.	Lbs Grain SAVOR/Ton Corn
Up to 14	6
16	12
18	18
20	23
22	26
24	29
26	32
28	35

** Grain SAVOR used on moist corn stored in the open shall be limited to the following areas: Nebraska (excluding S.E. corner), western Kansas, western Oklahoma, Texas Panhandle,

eastern New Mexico, eastern Colorado and S.E. Wyoming. All such corn must be fed out before May 1 of the following spring. Acceptable storage areas are bunkers, pits, or slabs with concrete or asphalt floors. Dirt or wooden walls must be lined with plastic. Do not cover the surface. Seal and construct storage areas to prevent water entry and slope floor areas for drainage. Store in long, rounded piles. Treatment should be made within four (4) hours of harvest.

RECOMMENDED RATE OF Grain SAVOR/TON OF MOIST SORGHUM, WHEAT, OATS OR BARLEY IN COVERED STORAGE***

Moisture Content of Grain, Percent by Wt.	Lbs Grain SAVOR/Ton Grain
10	3
12	6
14	12
16	16
18	20
20	23
22	26
24	29
26	32
28	35
30	38
32	41
34	44
36	47

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*** These rates protect stored sorghum, wheat, oats or barley up to 12 months.

Apply an approved anti-corrosive and acid-resistant coating to all metal and concrete storage surfaces to prevent corrosion.

Storage areas are to be empty and thoroughly cleaned prior to use. Do not store treated grain with untreated grain or forage in the same storage area.

If grain is stored adjacent to untreated grain, or if livestock or poultry is housed within the same facility, line the bin partitions and cover the floor with a moisture barrier (4-6 mil plastic sheet).

Do not place grain on a dirt or fresh concrete floor - use a moisture barrier (4-6 mil plastic sheet).

Do not allow grain fines to localize in any one area in the storage facility in order that moisture absorption will be minimized.

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Apply Grain SAVOR in such manner as to achieve thorough mixing and coverage of the grain.

Leave the surface of treated, stored grain uncovered to prevent sweating.



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Level the surface of stored grain to prevent moisture build-up in the peaks.

Do not treat in the rain - allow rain to soak into the pile and test for moisture content before continuing treatment.

Mechanically aerate the grain in storage in accordance with recommended practices to prevent condensation and moisture migration. See Grain SAVOR product insert for specific recommendations.

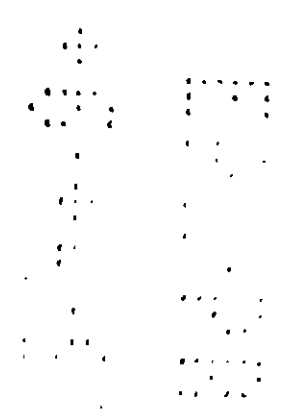
Monitor the temperature of stored grain. Sharp increases in temperature signal potential spoilage. The use of thermocouples or hand temperature probes is recommended.

Refer to the Grain SAVOR product insert when applying Grain SAVOR at temperatures lower than 50° F. Product viscosity increases as temperature falls below 50° F.

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Read the attached Grain SAVOR product insert before any use of this product.

GUIDES TO GOOD STORAGE

Good dry-grain management practices combined with Grain SAVOR application will help maintain the quality of stored grain.

To successfully store grain, the following management steps must be followed:

- 1) Clean all storage buildings and harvest machinery of old grain and dirt.
- 2) Remove all leaf, stem and cob particles from grain before storing.
- 3) Minimize broken grain, foreign materials and fines during harvest. Broken kernels are more susceptible to spoilage and pockets of fines are prone to develop hot spots. Use a grain spreader during filling to distribute fines.
- 4) Wash all interior storage areas, wagons, trucks, rail cars and grain barges with a solution of 8 ounces of Kemin's Grain SAVOR in a gallon of water.
- 5) Treat all high moisture grain with Grain SAVOR. Apply in the form of a spray. Use the KEMIFLO® applicator to apply Grain SAVOR.
- 6) Apply an approved insecticide to interior storage areas and all grain.
- 7) Install temperature sensors in large grain bins to trace grain heating and cooling cycles and to identify hot spots. Record temperatures weekly to identify gradual heating problems.
- 8) Aeration for temperature control: aerate to cool the grain for winter storage, 35-40° F in the Midwest and 30-35° F in the northern Midwest. Begin aeration when outside temperatures are 10-15° F below grain temperature. Aerate to warm the grain in the spring to avoid condensation if summer storage is required.
- 9) Level peaked grain to obtain uniform aeration.
- 10) Weekly observation and check of stored grain: check grain weekly during spring and fall when rapid outside temperature changes occur. Observe for the following:
 - a) Surface crusting, wet, sticky or frozen grain.
 - b) Past or present roof condensation.
 - c) Under surface heating by thrusting arm into grain.
 - d) Smell for musty or moldy odors in the still bin and when aeration system has been turned on.
 - e) With a rod, feel for hard, compacted or moist masses under the surface.
 - f) Observe for insect infestations. Insect activity increases with moisture accumulation and grain heating.
- 11) Cover fan intakes when not in use to prevent rodent access and air draft draw.
- 12) Treat only whole kernel grains.
- 13) Do not store treated grain and non-treated grain in the same storage structure.
- 14) Store treated grain for up to 23 months only.

TAKE TIME

**OBSERVE LABEL
DIRECTIONS**

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STORAGE AND DISPOSAL

Do not contaminate water or food by storage and disposal.

PESTICIDE STORAGE: Store in a warm, dry place above 10° F to prevent freezing.

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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or dispose of in a sanitary landfill, or by incineration if allowed by state and local procedures.

KEMIN INDUSTRIES, INC., DES MOINES, IOWA U.S.A. 50317