

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (75-767)
WASHINGTON, DC 20460

EPA REGISTRATION NO.

DATE OF ISSUANCE

59894-4
TERM OF ISSUANCE

DEC 10 1991

PK 31
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PS 1/3 b

NOTICE OF PESTICIDE: REGISTRATION
 REREGISTRATION
(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

NAME OF PESTICIDE PRODUCT

GKN-O

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

M&S Research, Inc.
11500 West Hill Drive
Rockville, MD 20852

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit/cite all data or other material required for registration/reregistration of your product under FIFRA section 3(c)(5) or FIFRA section 4 when the Agency requires all registrants of similar products to submit such data.

2. Make the labeling changes listed below before you release the product for shipment:

- a. Add the phrase "EPA Registration No. 59894-4."
- b. Delete: General Classification.
- c. Delete:

Physical or Chemical Hazards
Do not use or store near heat or open flame.

Note: You submitted no data to support this claim.

ATTACHMENT IS APPLICABLE

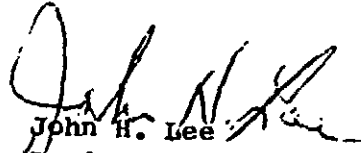
SIGNATURE OF APPROVING OFFICIAL

DATE

d. Refer to PR Notice 83-3 for appropriate Container Disposal statements.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.


John H. Lee
Product Manager (31)
Antimicrobial Program Branch
Registration Division (H7505C)

Enclosures

PRECAUTIONARY STATEMENTS

DANGER
HAZARDS TO HUMAN AND DOMESTIC ANIMALS
 KEEP OUT OF REACH OF CHILDREN

Corrosive. Causes severe eye and skin damage. Avoid breathing vapors. Do not get in eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves when handling. Harmful or fatal if swallowed. Avoid contamination of food. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not apply in marine and / or estuarine oil fields. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

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.

GENERAL CLASSIFICATION

To control algae and bacterial slimes, sulfur reducing bacteria use GKN-0 as directed. The frequency of addition of microbiocide needed depends on many factors. To optimize your use of GKN-0 use the following procedures.

Recirculating Cooling Towers:

1. Initially use 6 to 8 fluid ounces per 1000 gallons of water to be treated (10-15 ppm active product). Repeat the initial dose every seven days or increase the frequency, if needed.
 2. When the above treatment is successful, use 5-7 fluid ounces per 1000 gallons of water to maximize efficiency. Repeat weekly as needed
- Cooling tower waters that are inherently low in algae growth and bacteria count may be adequately controlled by the lower range of these dosages. Slug feed every seven days.

Oil Field Water Flood or Salt Water Disposal Systems:

1. For control of slime forming and sulfate reducing bacteria in oil field water flood or salt water disposal systems, add 10-15 ppm GKN-0 (1.5 to 3 gallons per 1000 barrels of water) continuously. Levels for effective control will vary depending on conditions at the site.
2. For intermittent use, dose at a rate of 2 to 3 gallons GKN-0 per 1000 barrels of water for four to eight hours per day, one to four times per week as needed for control to maintain control.
3. The weekly addition of 2 gallons of GKN-0 to each 1000 barrels (50 ppm GKN-0) of total volume each week is recommended to maintain microbial control. Add GKN-0 directly from the drum with the proper type of metering equipment.

BEST AVAILABLE COPY

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Enhanced Oil Recovery: Inject GKN-O directly from the drum to control bacteria following injection of miscible solvent, oil displacement chemicals, or carbon dioxide. Dosage may be 20 to 100 ppm. The lower concentration for continuous treatment, the higher for periodic batch.

For repressuring depleted oil or gas zones continuous injection of GKN-O at 20 to 60 ppm into fresh or salt water should be adequate.

For preserving drilling fluids, work-over fluids or water based packer fluids. 100 to 500 ppm of GKN-O will be adequate.

For batch treating the Annulus of Producing oil wells 1 to 5 gallons of GKN-O can be flushed down the annulus weekly with producing fluids.

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Drilling muds:

1. Calculate the total volume of the drilling mud system. Using this volume, calculate the number of gallons of microbiocide needed to produce a concentration of approximately 1000 ppm GKN-O. For example, 45 gallons of GKN-O per each 1000 barrels of total volume will produce this dilution.
2. While the system is circulating, add the microbiocide in a this stream.
3. As the depth increases (increasing the total volume of the system) add additional GKN-O to maintain the proper concentration.

Workover Fluids:

1. Calculate the total volume of the workover fluid system. Using this volume, calculate the number of gallons of GKN-O needed to produce a concentration of approximately 2000 ppm GKN-O. For example, 45 gallons of GKN-O per each 1000 barrels of total volume will produce this dilution.
2. Add the GKN-O. Circulate the workover fluid system until the fluid returns clear. Shut system down and idle for several hours.
3. Remove the workover fluid. The well should be ready for productive use.

Oil Well Water Floods:

1. Calculate the total volume of the water flood system. Using this volume, calculate the number of gallons of microbiocide needed to produce a concentration of approximately 150 ppm of GKN-O. For example, 4.2 gallons of microbiocide per each 1000 barrels of total volume will produce this dilution.
2. Add the microbiocide as a slug or intermittently.
3. The addition of 50 ppm GKN-O each week is recommended to maintain bacterial control. This may be accomplished by adding 2 gallons of microbiocide to each 1000 barrels of total volume.

STORAGE AND DISPOSAL

STORAGE: Do not contaminate water, food, or feed by storage.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by 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 Hazardous Waste representative at nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL - Completely empty drum. Then, dispose of empty drum in accordance with Federal, State or Local regulations.

HANDLING PRECAUTIONS - When handling GKN-O concentrate wear goggles, neoprene or rubber gloves and appropriate clothing. Wash thoroughly with soap and water after handling. Use full-face NIOSH approved glutaraldehyde or acid gas cartridge or canister respirator within use limitations of these devices; in all other situations, use self-contained breathing apparatus (SCBA).

IN CASE OF SPILL: Clean up immediately. Place leaking container in well ventilated area. To clean up spill, flush area sparingly with water or use an absorbent. Avoid run-off into storm sewers and ditches leading to natural waterways.