

464-700

11/18/2010

1 of 5



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 18 2010

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

The Dow Chemical Company
1803 Building
Midland, MI 48674

Attention: Rhonda Vance-Moeser
Sr. Regulatory Specialist

Subject: Notification – Glutex GQ1 Sanitizer and Disinfectant
EPA Reg. No. 464-700
Notification Letter Dated October 15, 2010

This will acknowledge receipt of your notification for the aforementioned product label, submitted under the provisions of Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 3© (9). Based on a review of the submitted material, the following apply:

- Separate the use Oil and Gas Production and Transmission Pipelines and Systems into the following:
 - Oil Production and Transmission Pipeline and Systems
 - Gas Production and Transmission Pipelines and Systems
- Addition of the statement, “Product not registered for this use in the State of California for the oil use.”

The Notification is in compliance with PR Notice 98-10 and is acceptable. This information has been made a part of your file.

If you have any questions concerning this letter, please contact Abigail Downs at (703) 305-5259.

Sincerely,

A handwritten signature in black ink that reads "M Swindell".

Marshall Swindell
Product Manager (33)
Regulatory Management Branch I
Antimicrobials Division (7510CP)



United States
Environmental Protection Agency
Washington, DC 20460

Registration
 Amendment
 Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 464-700	2. EPA Product Manager Marshall Swindell	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) The Dow Chemical Company/ GLUTEX™ GQ1 Sanitizer & Disinf	PM# 33	
5. Name and Address of Applicant (Include ZIP Code) The Dow Chemical Company 1803 Building Midland, MI 48674 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: <input checked="" type="checkbox"/> EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification to separate Oil and Gas Production and Transmission Pipelines and Systems into the following: 1) Oil Production and Transmission Pipelines and Systems 2) Gas Production and Transmission Pipelines and Systems 3) Add statement "Product not registered for this use in the State of CA to oil use. Refer to letter for Notification Statement.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal	<input type="checkbox"/> Plastic
* Certification must be submitted	If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container	<input type="checkbox"/> Glass
					<input type="checkbox"/> Paper
					<input type="checkbox"/> Other (Specify) _____
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			<input type="checkbox"/> Other _____		

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Rhonda Vance-Moeser	Title Sr. Regulatory Specialist	Telephone No. (Include Area Code) (989) 635-1884
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature <i>Rhonda Vance-Moeser</i>	3. Title Sr. Regulatory Specialist	
4. Typed Name Rhonda Vance-Moeser	5. Date <i>Oct. 15, 2010</i>	

40 of 5

HIGHLIGHT COPY

KEEP OUT OF REACH OF CHILDREN DANGER

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Corrosive. Causes irreversible eye damage. Causes skin irritation. Harmful if inhaled. Harmful if swallowed. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes asthmatic signs and symptoms in hyper-reactive individuals.

Do not get in eyes, on skin, on clothing. Avoid breathing vapor. Do not swallow. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, oysters and shrimp. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

Personal Protective Equipment

Applicators and other handlers must wear: goggles or face shield, long-sleeve shirt, long pants, shoes, socks, chemical-resistant gloves (such as butyl rubber) and chemical resistant apron.

User Safety Requirements
Follow manufacturer's instructions for cleaning & maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

STORAGE AND HANDLING

GLUTEX GQ1 Sanitizer and Disinfectant is incompatible with many commonly used materials of construction such as steel, galvanized iron, aluminum, tin, and zinc. GLUTEX GQ1 Sanitizer and Disinfectant can be stored and handled in baked phenolic-lined steel, polyethylene, stainless steel, or reinforced epoxy-plastic equipment. This product freezes at about 27° F (-3° C). Therefore, unless the storage tank is inside or underground, heating and insulation may be required. If heating is needed, exposure to high temperatures should be avoided. For short storage times (up to about 1 month), temperatures of up to 100° F (37.8° C) can be tolerated but the preferred maximum storage temperature is about 80° F (26.7° C).

A stainless steel centrifugal pump is suggested for transfer service. Spiral-wound stainless steel with TEFLON® Polymer is suitable for gaskets and packing.

Handle in a well-ventilated area. If vapors are irritating to the nose or eyes, special ventilation or respiratory protection (MSHA/NIOSH approved air purifying respirator equipped with an organic vapor cartridge) may be required.

The product in its undiluted form must not be used in a spray, fogging or aerosol application.

STORAGE AND DISPOSAL

PESTICIDE DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. 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

Option to use for labels on nonrefillable rigid containers of all sizes.
Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. 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.

Option to use for labels on refillable rigid tote containers.
Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning of the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty contents into application equipment and triple rinse. Pour or pump rinsate into application equipment or rinsate collection system. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Notice: Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

GLUTEX™ GQ1 Sanitizer and Disinfectant

DIRECTIONS FOR USE

Active Ingredient: Glutaraldehyde	14.0%
Alkyl (C14 50%, C12 40%, C16 10%) dimethyl benzyl ammonium chloride	2.5%
Inert Ingredients:	83.5%
Total:	100.0%

It is a violation of Federal Law to use this product in a manner inconsistent with AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS/RECYCLING COOLING AND PROCESS V. This product may be used only in industrial air washers and air washer systems which have mist-eliminating component GLUTEX GQ1 Sanitizer and Disinfectant should be added at the application rates described below to a water treatment of uniform mixing such as the basin area. Addition may be made intermittently (SLUG DOSE) or continuously. Badly treated with GLUTEX GQ1 Sanitizer and Disinfectant. Under these conditions, blowdown should be discontinued for GLUTEX GQ1 Sanitizer and Disinfectant can be used in industrial process water systems that contain ultra filtration osmosis membranes (whenever approved for compatibility by the membrane manufacturer) and associated distribution system INTERMITTENT (SLUG DOSE) METHOD Initial Dose: When the system is noticeably fouled, apply 4.2 to 8.5 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant in the system. Repeat until control is achieved. Subsequent Dose: When microbial control is evident, add 1.7 to 4.2 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant in the system weekly or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

FIRST AID

IF SWALLOWED	<ul style="list-style-type: none"> If the person is fully alert and cooperative, have the person rinse mouth with plenty of water. Have the patient drink 4 to 10 ounces (120-300 mL) of water or milk. Do not induce vomiting. Do not attempt mouth rinse if the person has respiratory distress, altered mental status, or nausea and vomiting. Call a physician and/or transport to emergency facility immediately. See Note to Physician.
IF IN EYES	<ul style="list-style-type: none"> Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Call a poison control center or a doctor immediately for treatment advice.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or a doctor for treatment advice.
IF INHALED	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or a doctor for further treatment advice.

CONTINUOUS FEED METHOD
Initial Dose: When the system is noticeably fouled, apply 4.2 to 8.5 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant in the system. Subsequent Dose: Maintain this treatment level by starting a continuous feed of 0.8 to 4.2 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant per 100 gallons of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

SERVICE WATER AND AUXILIARY SYSTEMS
GLUTEX GQ1 Sanitizer and Disinfectant should be used at the same application rates, and in the same manner as added to the system at a point that will allow for uniform mixing throughout the system.

HEAT TRANSFER SYSTEMS
(Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers And Retorts, And Pasteurizers And W. GLUTEX GQ1 Sanitizer and Disinfectant should be used at the same application rates, and in the same manner as added to the system at a point of uniform mixing such as a basin area, sump area, or other reservoir or collecting a will be circulated uniformly throughout the system.

INDUSTRIAL WASTEWATER SYSTEMS
(Wastewater Systems, Wastewater Sludge And Wastewater Holding Tanks)
GLUTEX GQ1 Sanitizer and Disinfectant should be added to a wastewater system or sludge at a convenient point of discharge. Add 200 to 975 fluid ounces (1.6 to 7.6 gallons) (1,600 to 7,600 ppm product) of GLUTEX GQ1 Sanitizer and D of wastewater or sludge.

PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS
GLUTEX GQ1 Sanitizer and Disinfectant should be added to the paper making system at a point of uniform mixing pump, save-all tank, or white-water tank.
Initial Dose: When the system is noticeably contaminated, add 1.5 to 8.0 lbs of [R1] (R1 per ton or 0.76 to 4.5 Kg of paper (dry basis) as a slug dose. Repeat until control is achieved. Heavily fouled systems should be bled out prior to Subsequent Dose: When microbial control is evident, add 0.9 to 6.0 lbs of GLUTEX GQ1 Sanitizer and Disinfectant per metric ton of pulp or paper (dry basis) as a slug dose as necessary to maintain control.

WATER BASED COATINGS FOR PAPER AND PAPERBOARD
NOTE: For use in non-food contact coatings only.
Use from 0.3 to 1.8 lbs. of GLUTEX GQ1 Sanitizer and Disinfectant per 1,000 lbs. of dry powder or 0.3 to 1.8 Kg Disinfectant per metric ton of dry slurry to produce a concentration from 300 to 1,800 ppm as product (based on slurr

WATER FLOODS
GLUTEX GQ1 Sanitizer and Disinfectant should be added to a water flood system at a point of uniform mixing.
Initial Treatment: When the system is noticeably contaminated, add 300 to 15,000 ppm GLUTEX GQ1 Sanitizer a to 14.5 gallons GLUTEX GQ1 Sanitizer and Disinfectant per 1,000 gallons flood water). Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 80 to 15,000 ppm GLUTEX GQ1 Sanitizer and D GLUTEX GQ1 Sanitizer and Disinfectant per 1,000 gallons flood water) to the system weekly, or as needed to maintain control.


HOT LINE NUMBER

IN CASE OF AN EMERGENCY endangering life or property involving this product, call collect (989)636-4400. Have product container or label with you when calling a poison control center or doctor or going for treatment.

NOTE TO PHYSICIAN: Aspiration may cause lung damage. Probable mucosal damage may contraindicate the use of gastric lavage.

E.P.A. Registration No. 464-700
E.P.A. Est. XXXX-XX-X

Produced for:



THE DOW CHEMICAL COMPANY
Midland, Michigan 48674 U.S.A.
(989)636-4400
© TM Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

Made in U.S.A.

NET CONTENTS: XXXX gallons
NET WT: XXX lb / XXX kg
LOT NO:

FRAC FLUIDS
Not registered for this use in the State of California.
GLUTEX GQ1 Sanitizer and Disinfectant reduces bacterial contamination and degradation of fracturing fluids in stimulations. Add GLUTEX GQ1 Sanitizer and Disinfectant to the frac water storage tanks or directly into the well head if being pumped down-hole.
Dose Range: GLUTEX GQ1 Sanitizer and Disinfectant should be added at a rate of 360 to 17,900 ppm (3.5 - 1 depending on the degree of bacterial fouling in the source water).

DRILLING, COMPLETION, AND WORKOVER FLUIDS
GLUTEX GQ1 Sanitizer and Disinfectant should be added to a drilling fluid system at a point of uniform mixing such Initial Treatment: Add 150 to 3,000 ppm GLUTEX GQ1 Sanitizer and Disinfectant (0.6 to 12.2 gallons GLUTEX G 100 barrels of fluid) to a freshly prepared fluid depending on the severity of contamination.
Maintenance Dosage: Maintain a concentration of 150 to 3,000 ppm GLUTEX GQ1 Sanitizer and Disinfectant GLUTEX GQ1 Sanitizer and Disinfectant per 100 barrels of additional fluid, or as needed, depending on the severity

PACKER FLUIDS
GLUTEX GQ1 Sanitizer and Disinfectant should be added to a packer fluid at a point of uniform mixing such as a circula 1,800 ppm GLUTEX GQ1 Sanitizer and Disinfectant (0.6 to 7.3 gallons GLUTEX GQ1 Sanitizer and Disinfectant p prepared fluid depending on the severity of contamination. Seal the treated packer fluid in the wall between the casing

OIL PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS
Product not registered for this use in the State of California.
GLUTEX GQ1 Sanitizer and Disinfectant should be added to an oil production or transmission line via direct inji contacted to ensure maximum distribution of GLUTEX GQ1 Sanitizer and Disinfectant throughout the entire line sufficient amount of bicarbonate to detect/measure a residual concentration at the back end of the pipeline system. Criteria: a. Injection in backflow counts and/or reduced corrosion rates. To facilitate application, it may be desirable to c and Disinfectant with an appropriate solvent immediately before use. The concentration in the solvent should not range of 500 to 5,000 ppm based on the volume of water in the pipeline. Injections to the system should be weekly, or

GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS
GLUTEX GQ1 Sanitizer and Disinfectant should be added to an gas production or transmission line via direct inji contacted to ensure maximum distribution of GLUTEX GQ1 Sanitizer and Disinfectant throughout the entire line sufficient amount of bicarbonate to detect/measure a residual concentration at the back end of the pipeline system. Criteria: a. Injection in backflow counts and/or reduced corrosion rates. To facilitate application, it may be desirable to c and Disinfectant with an appropriate solvent immediately before use. The concentration in the solvent should not range of 500 to 5,000 ppm based on the volume of water in the pipeline. Injections to the system should be weekly, or

GAS STORAGE WELLS AND SYSTEMS
Individual injector/wells should be treated with sufficient quantity of GLUTEX GQ1 Sanitizer and Disinfectant to pr 15,000 ppm GLUTEX GQ1 Sanitizer and Disinfectant when diluted by the water present in the formation. Injection injected (during the summer). Injections should be repeated yearly, or as needed to maintain control.
Individual dips should be treated with a sufficient quantity of GLUTEX GQ1 Sanitizer and Disinfectant to produce a GLUTEX GQ1 Sanitizer and Disinfectant when diluted by the water present in the dip. Injections should be repeated year control.

HYDROTESTING
Water used to hydrotest pipelines or vessels should contain 300 to 12,000 ppm GLUTEX GQ1 Sanitizer and GLUTEX GQ1 Sanitizer and Disinfectant per 1,000 gallons water), depending on water quality and length of time th

Sanitizer and Disinfectant

DIRECTIONS FOR USE

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

- 4.0% **AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS/RECIRCULATING COOLING AND PROCESS WATER SYSTEMS**
This product may be used only in industrial air washers and air washer systems which have mist-eliminating components.
GLUTEX GQ1 Sanitizer and Disinfectant should be added at the application rates described below to a water treatment system at a convenient point of uniform mixing such as the basin area. Addition may be made intermittently (SLUG DOSE) or continuously. Badly fouled systems can be shock treated with GLUTEX GQ1 Sanitizer and Disinfectant. Under these conditions, blowdown should be discontinued for up to 24 hours.
- 2.5% **GLUTEX GQ1 Sanitizer and Disinfectant can be used in industrial process water systems that contain ultra filtration units and non-medical reverse osmosis membranes (where approved for compatibility by the membrane manufacturer) and associated distribution systems.**
- 13.5% **INTERMITTENT (SLUG DOSE) METHOD**
Initial Dose: When the system is noticeably fouled, apply 4.2 to 8.5 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant per 100 gallons of water in the system. Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 1.7 to 4.2 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant per 100 gallons of water in the system weekly or as needed to maintain control.
Badly fouled systems must be cleaned before treatment is begun.

- 10.0% **CONTINUOUS FEED METHOD**
Initial Dose: When the system is noticeably fouled, apply 4.2 to 8.5 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant per 100 gallons of water in the system.
Subsequent Dose: Maintain this treatment level by starting a continuous feed of 0.8 to 4.2 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant per 100 gallons of water in the system per day.
Badly fouled systems must be cleaned before treatment is begun.

- SERVICE WATER AND AUXILIARY SYSTEMS**
GLUTEX GQ1 Sanitizer and Disinfectant should be used at the same application rates, and in the same manner as described above. It should be added to the system at a point of uniform mixing such as a basin area, sump area, or other reservoir or collecting area from which the treated water will be circulated uniformly throughout the system.

- HEAT TRANSFER SYSTEMS**
(Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers And Retorts, And Pasteurizers And Warmers)
GLUTEX GQ1 Sanitizer and Disinfectant should be used at the same application rates, and in the same manner as described above. It should be added to the system at a point of uniform mixing such as a basin area, sump area, or other reservoir or collecting area from which the treated water will be circulated uniformly throughout the system.

- INDUSTRIAL WASTEWATER SYSTEMS**
(Wastewater Systems, Wastewater Sludge And Wastewater Holding Tanks)
GLUTEX GQ1 Sanitizer and Disinfectant should be added to a wastewater system or sludge at a convenient point of uniform mixing such as the digester. Add 200 to 975 fluid ounces (1.6 to 7.6 gallons) (1,600 to 7,600 ppm product) of GLUTEX GQ1 Sanitizer and Disinfectant per 1,000 gallons of wastewater or sludge.

- PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS**
GLUTEX GQ1 Sanitizer and Disinfectant should be added to the paper making system at a point of uniform mixing such as the beaters, broke chest pump, save-all tank, or white-water tank.
Initial Dose: When the system is noticeably contaminated, add 1.5 to 9.0 lbs of [R1][R1] per ton or 0.76 to 4.5 Kg of [R1][R1] per metric ton of pulp or paper (dry basis) as a slug dose. Repeat until control is achieved. Heavily fouled systems should be boiled out prior to initial treatment.
Subsequent Dose: When microbial control is evident, add 0.9 to 6.0 lbs of GLUTEX GQ1 Sanitizer and Disinfectant per ton or 0.46 to 3.0 Kg of GLUTEX GQ1 Sanitizer and Disinfectant per metric ton of pulp or paper (dry basis) as a slug dose as necessary to maintain control.

- WATER BASED COATINGS FOR PAPER AND PAPERBOARD**
NOTE: For use in non-food contact coatings only.
Use from 0.3 to 1.8 lbs. of GLUTEX GQ1 Sanitizer and Disinfectant per 1,000 lbs. of dry powder or 0.3 to 1.8 Kg of GLUTEX GQ1 Sanitizer and Disinfectant per metric ton of dry slurry to produce a concentration from 300 to 1,800 ppm as product (based on slurry solids) in the mixed slurry.

- WATER FLOODS**
GLUTEX GQ1 Sanitizer and Disinfectant should be added to a water flood system at a point of uniform mixing.
Initial Treatment: When the system is noticeably contaminated, add 300 to 15,000 ppm GLUTEX GQ1 Sanitizer and Disinfectant to the system (0.3 to 14.5 gallons GLUTEX GQ1 Sanitizer and Disinfectant per 1,000 gallons flood water). Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 60 to 15,000 ppm GLUTEX GQ1 Sanitizer and Disinfectant (0.06 to 14.5 gallons GLUTEX GQ1 Sanitizer and Disinfectant per 1,000 gallons flood water) to the system weekly, or as needed to maintain control.

- FRAC FLUIDS**
Not registered for this use in the State of California.
GLUTEX GQ1 Sanitizer and Disinfectant reduces bacterial contamination and degradation of fracturing fluids and gels used in oil and gas well stimulations. Add GLUTEX GQ1 Sanitizer and Disinfectant to the frac water storage tanks or directly into the well head injection pipeline as the water is being pumped down-hole.
Dose Range: GLUTEX GQ1 Sanitizer and Disinfectant should be added at a rate of 360 to 17,900 ppm (3.5 - 172.5 gallons per 10,000 gallons) depending on the degree of bacterial fouling in the source water.

- DRILLING, COMPLETION, AND WORKOVER FLUIDS**
GLUTEX GQ1 Sanitizer and Disinfectant should be added to a drilling fluid system at a point of uniform mixing such as the circulating mud tank.
Initial Treatment: Add 150 to 3,000 ppm GLUTEX GQ1 Sanitizer and Disinfectant (0.6 to 12.2 gallons GLUTEX GQ1 Sanitizer and Disinfectant per 100 barrels of fluid) to a freshly prepared fluid depending on the severity of contamination.
Maintenance Dosage: Maintain a concentration of 150 to 3,000 ppm GLUTEX GQ1 Sanitizer and Disinfectant by adding 0.6 to 12.2 gallons of GLUTEX GQ1 Sanitizer and Disinfectant per 100 barrels of additional fluid, or as needed, depending on the severity of contamination.

- PACKER FLUIDS**
GLUTEX GQ1 Sanitizer and Disinfectant should be added to a packer fluid at a point of uniform mixing such as a circulating holding tank. Add 150 to 1,800 ppm GLUTEX GQ1 Sanitizer and Disinfectant (0.6 to 7.3 gallons GLUTEX GQ1 Sanitizer and Disinfectant per 100 barrels of fluid) to a freshly prepared fluid depending on the severity of contamination. Seal the treated packer fluid in the well between the casing and production tube.

- OIL PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS**
Product not registered for this use in the State of California.
GLUTEX GQ1 Sanitizer and Disinfectant should be added to an oil production or transmission line via direct injection. The application should be conducted to ensure maximum distribution of GLUTEX GQ1 Sanitizer and Disinfectant throughout the entire internal pipeline surface by adding a sufficient amount of biocide to detect/measure a residual concentration at the back end of the pipeline system. Criteria for success of the treatment will be a reduction in bacterial counts and/or reduced corrosion rates. To facilitate application, it may be desirable to dilute the GLUTEX GQ1 Sanitizer and Disinfectant with an appropriate solvent immediately before use. The concentration in the solvent should not fall below an active concentration and range of 500 to 5,000 ppm based on the volume of water in the pipeline. Injections to the system should be weekly, or as needed to maintain control.

- GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS**
GLUTEX GQ1 Sanitizer and Disinfectant should be added to an gas production or transmission line via direct injection. The application should be conducted to ensure maximum distribution of GLUTEX GQ1 Sanitizer and Disinfectant throughout the entire internal pipeline surface by adding a sufficient amount of biocide to detect/measure a residual concentration at the back end of the pipeline system. Criteria for success of the treatment will be a reduction in bacterial counts and/or reduced corrosion rates. To facilitate application, it may be desirable to dilute the GLUTEX GQ1 Sanitizer and Disinfectant with an appropriate solvent immediately before use. The concentration in the solvent should not fall below an active concentration and range of 500 to 5,000 ppm based on the volume of water in the pipeline. Injections to the system should be weekly, or as needed to maintain control.

- GAS STORAGE (WELL) FLUID SYSTEMS**
Individual injection wells should be treated with sufficient quantity of GLUTEX GQ1 Sanitizer and Disinfectant to produce a concentration of 1,500 to 15,000 ppm GLUTEX GQ1 Sanitizer and Disinfectant when diluted by the water present in the formation. Injection should take place before gas is injected (during the summer). Injections should be repeated yearly, or as needed to maintain control.
Individual drips should be treated with a sufficient quantity of GLUTEX GQ1 Sanitizer and Disinfectant to produce a concentration of 600 to 6,000 ppm GLUTEX GQ1 Sanitizer and Disinfectant when diluted by the water present in the drip. Injections should be repeated yearly, or as needed to maintain control.

- HYDROTESTING**
Water used to hydrotest pipelines or vessels should contain 300 to 12,000 ppm GLUTEX GQ1 Sanitizer and Disinfectant (0.3 to 11.8 gallons GLUTEX GQ1 Sanitizer and Disinfectant per 1,000 gallons water), depending on water quality and length of time the equipment will remain idle.

DISINFECTING OR SANITIZING NON-FOOD CONTACT SURFACES, FARM, ANIMAL, AND POULTRY HOUSING FACILITIES AND EQUIPMENT

Not registered for this use in the State of California.
DO NOT USE THIS PRODUCT ON FOOD OR FEED
GLUTEX GQ1 Sanitizer and Disinfectant is suitable for use on a wide variety of surfaces including stainless steel, aluminum, painted concrete, plastic, and glazed tile.

- Disinfection**
For disinfection against the following pathogens:
Klebsiella pneumoniae, (ATCC 4352)
Pasteurella multocida, (ATCC 37471)
Campylobacter jejuni, (ATCC BAA-1062)
Haemophilus paragallinarum, (ATCC 29545)
Mycoplasma gallisepticum, (ATCC 15302)
Pseudomonas aeruginosa, (ATCC 15442)
Escherichia coli, (ATCC 11229)
Salmonella enterica, (ATCC 10708)
Clostridium perfringens, (ATCC 13124)
Mycoplasma hyopneumoniae, (ATCC 25834)
Staphylococcus aureus, (ATCC 6538)
Salmonella enterica, (ATCC 13076)

- For disinfection against the following viruses:
Swine Influenza Virus (H1N1), (ATCCVR-99)
Porcine parvovirus, (ATCC VR-742)
Avian Infectious Laryngotracheitis Virus, (SPAFAS 547316)
Porcine Respiratory Reproductive Syndrome Virus, (Arko Labs, Item Number MS036N04075)
Prepare disinfection solution according to the following procedure:

- Disinfection solution preparation:**
1. Mix 1 fluid ounce of GLUTEX GQ1 Sanitizer and Disinfectant per gallon of water (8 mis per liter) to produce a solution containing 0.13% total active ingredients.
2. For application against *Porcine parvovirus*, mix 2 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant per gallon of water (16 mis per liter, a 1:64 dilution of the product).
3. Apply by sponge, mop, spray, fogging or immersion depending upon the surface to be disinfected.
4. Allow prepared solution to stand on surface for at least 10 minutes, or until thoroughly dried.
5. Fresh solution should be prepared daily or more often if the solution becomes diluted or soiled.

- Sanitization**
For sanitization against the following pathogens:
Klebsiella pneumoniae, (ATCC 4352)
Staphylococcus aureus, (ATCC 6538)
Salmonella choleraesuis, (ATCC 10708)
Pseudomonas aeruginosa, (ATCC 15442)

- For sanitization against the following viruses:
Infectious bursal disease (Infectious bursa disease, Lukert strain)
Avian influenza (H5N2 and H5N1), (ATCC VR-759)
For sanitization against the following fungus: *Aspergillus fumigatus*, (ATCC 36607)
Prepare sanitizing solution according to the following procedure:

- Sanitizing solution preparation:**
1. Mix 0.45 to 1.8 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant per gallon of water (3.5 to 14.1 milliliters per liter) to produce a solution containing 0.06 to 0.24% total active ingredients.
2. For application against *Porcine circovirus*, mix 0.9 to 2.2 fluid ounces of GLUTEX GQ1 Sanitizer and Disinfectant per gallon of water (6.9 to 17.3 milliliters per liter) to produce a solution containing 0.12 to 0.293% total active ingredients.
3. Apply by sponge, mop, spray, fogging or immersion depending upon the surface to be sanitized.
4. Allow to stand for at least five minutes, or until thoroughly dried.
5. Fresh solution should be prepared daily or more often if the solution becomes diluted or soiled.

- Farm Equipment And Animal Housing Buildings**
(Poultry & turkey grow-out houses, laying houses, swine production and housing, barns and large animal buildings)
1. Remove all poultry and other animals and feed from the premises. Remove all portable equipment and empty all feeders and water troughs. If not removed, all treated feeders and waterers must be thoroughly rinsed with potable water prior to re-use.
2. Remove all litter and manure from floors and other surfaces. Remove gross filth and soil deposits from surfaces prior to treatment. Pre-clean surfaces with a suitable detergent and rinse with water.
3. Prepare either disinfection or sanitizing solution depending upon the organisms being treated by mixing the appropriate amount of GLUTEX GQ1 Sanitizer and Disinfectant with water. Refer to solution preparation above.
4. Using suitable commercially available equipment, saturate all surfaces with the prepared solution. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
5. Allow to stand for at least 5 minutes for sanitization or 10 minutes for disinfection.
6. Ventilate enclosed spaces.
7. Do not repopulate with poultry or other animals, or use equipment until treatment has been absorbed or dried.

- Hatchers, Setters, and Chick Processing Facilities**
Not for treatment of hatcheries which contain chicks/eggs.
1. For disinfection or sanitizing of environmental surfaces prior to introduction of eggs: Remove all animals and feed from premises/vehicles and enclosures.
2. Clean out feathers, fluff, or other debris. Remove gross filth and soil deposits from surfaces prior to treatment. Pre-clean surfaces with a suitable detergent and rinse with water.
3. Prepare either disinfection or sanitizing solution depending upon the organisms being treated by mixing the appropriate amount of GLUTEX GQ1 Sanitizer and Disinfectant with water. Refer to solution preparation above.
4. Thoroughly saturate all surfaces with the prepared solution. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
5. Allow to stand for at least 5 minutes for sanitization or 10 minutes for disinfection.
6. Ventilate thoroughly before reuse.
7. Note: For treatment of air and surfaces in high humidity hatchers and setters with water spray cooling: Fog or atomize this solution into setters or hatchers, using appropriate application equipment. Fogging of poultry houses should only be done in such a way that the operator is outside the poultry house when applying the fog. Wait at least 3 hours before re-entry after application.
8. Note: For treatment of air and surfaces in low humidity hatchers with chilled coil cooling: Fog or atomize this product using appropriate application equipment. Fogging of poultry houses should only be done in such a way that the operator is outside the poultry house when applying the fog. Wait at least 3 hours before re-entry after application.

- Trays, Racks, Carts, Chick Boxes, Cages and Other Hard Surfaces**
1. Remove all filth and heavy debris from surfaces by scraping or washing.
2. Prepare either disinfection or sanitizing solution depending upon the organisms being treated by mixing the appropriate amount of GLUTEX GQ1 Sanitizer and Disinfectant with water. Refer to solution preparation above.
3. Apply by spraying or immersion, and allow to drain and air-dry. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
4. Allow to stand for at least 5 minutes for sanitization or 10 minutes or for longer for disinfection.
5. Ventilate enclosed spaces.
6. Do not repopulate with poultry or other animals, or use equipment until treatment has been absorbed or dried.

- Trucks and other Vehicles**
1. Remove all filth and heavy debris from surfaces by scraping or washing.
2. Prepare either disinfection or sanitizing solution depending upon the organisms being treated by mixing the appropriate amount of GLUTEX GQ1 Sanitizer and Disinfectant with water. Refer to solution preparation above.
3. Apply by spraying or immersion, and allow to air-dry.
4. Allow to stand for at least 5 minutes for sanitization or 10 minutes or for longer for disinfection.
5. Ventilate enclosed spaces.
6. Do not repopulate with poultry or other animals, or use equipment until treatment has been absorbed or dried.

DISINFECTING OR SANITIZING NON-FOOD CONTACT SURFACES, INDUSTRIAL EQUIPMENT AND BUILDINGS

- Not registered for this use in the State of California.
1. Remove all heavy filth and soil deposits from surfaces using a suitable cleaner.
2. Prepare either disinfection or sanitizing solution by mixing the appropriate amount of GLUTEX GQ1 Sanitizer and Disinfectant with water. Refer to solution preparation above.
3. Using suitable commercially available equipment, saturate all surfaces with the prepared solution. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
4. Allow to stand for at least 5 minutes for sanitization or 10 minutes or for longer for disinfection.
5. Ventilate enclosed spaces.
6. Do not repopulate with poultry or other animals, or use equipment until treatment has been absorbed or dried.