# **GQ 142**

# A MICROBIOCIDE FOR USE IN CONTROLLING SLIME-FORMING BACTERIA AND SULFATE-REDUCING BACTERIA IN INDUSTRIAL APPLICATIONS.

# SOLUTION

# **ACTIVE INGREDIENTS:**

Glutaraldehyde	14%
n-Alkyl (C12 40%, C14 50%, C16 10%)	
dimethyl benzyl ammonium chloride	2.5%

# **REGISTRATION NO. 35183 PEST CONTROL PRODUCTS ACT**

# COMMERCIAL DANGER

# POTENTIAL SKIN AND RESPIRATORY TRACT SENSITIZER

# **CORROSIVE**



# **READ THE LABEL BEFORE USING**

Net contents: 18.93, 208 Litres and BULK

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#### **PRECAUTIONS**

## **KEEP OUT OF REACH OF CHILDREN**

Corrosive to eyes and skin. Causes irreversible eye damage. Harmful if inhaled. Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes asthmatic signs and symptoms in individuals with hyper-reactive airways. Do not get in eyes, on skin, on clothing. Do not inhale fumes or vapor. Do not swallow.

Wear coveralls over long sleeved shirt and long pants, chemical resistant gloves, socks and chemical resistant footwear, eye protection and NIOSH approved organic-vapour-removing cartridge with prefilter respirator during mixing, loading, application, clean up, maintenance and repair. Wash thoroughly with soap and water after handling. Use only in well ventilated area. Remove contaminated clothing and shoes and wash them before reuse.

# **ENVIRONMENTAL PRECAUTIONS**

Toxic to aquatic organisms.

#### **FIRST AID**

**IF IN EYES:** Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses, if present after first 5 minutes and continue washing. Call a poison control centre or a doctor immediately for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

#### TOXICOLOGICAL INFORMATION

Aspiration may cause lung damage. Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed. This product is a potential sensitizer of the respiratory tract.

#### DISPOSAL:

- 1. Triple or pressure-rinse the emptied container. Add the rinsings to the treatment site.
- 2. Follow provincial/territorial instruction for any required additional cleaning of the container prior to its disposal.
- 3. Make the empty container unsuitable for further use.
- 4. Dispose of the container in accordance with provincial/territorial requirements.
- 5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial regulatory agency in case of a spill, and for clean-up of spills.

#### **STORAGE**

Store this product away from food or feed.

GQ 142 solutions are incompatible with many commonly used materials of construction such as steel, galvanized iron, aluminum, tin, and zinc. These solutions can be stored and handled in baked phenolic-lined steel, polyethylene, stainless steel, or reinforced epoxy-plastic equipment. This product freezes at about - 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 38°C can be tolerated but the preferred maximum storage temperature is about 27°C. A stainless steel centrifugal pump is suggested for transfer service. Spiral wound stainless steel with TEFLON® is suitable for gaskets and packing.

# **NOTICE TO USER:**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

#### **DIRECTIONS FOR USE**

If product is applied manually, a dust mist respirator must be worn during application.

**DO NOT** open pour more than 20 L of concentrate per day. Use an automatic system if using more than 20 L of concentrate per day.

**DO NOT** contaminate irrigation or drinking water suppliers or aquatic habitats by cleaning of equipment or disposal of wastes.

This registration is granted under the *Pest Control Products Act* and does not exempt the user from any other legislative requirements. Use of this product and management of any resulting discharge or release of effluents containing this product must also be in accordance with the *Fisheries Act* and with any other applicable federal, provincial and territorial legislation. Consult with federal, provincial and territorial regulatory authorities where the pesticide application is to occur on any authorizations or other requirements for use of this product and management of any resulting discharge or release of effluents containing this product.

Product efficacy may be reduced in the presence of ammonia, secondary amines and bisulfite oxygen scavengers. This product may increase the tendency of foaming in aqueous systems and prevents the efficient separation of water/oil emulsion.

# 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.

GQ 142 should be added to a water treatment system at a point of uniform mixing such as the basin area. Additions may be made intermittently(SLUG DOSE) or continuously. Badly fouled systems can be shock treated with GQ 142. Under these conditions, blowdown should be discontinued for up to 24 hours or more.

GQ 142 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.

## INTERMITTENT (SLUG DOSE) METHOD

**Initial Dose:** When the system is noticeably fouled apply 333 mL to 1.3L of GQ 142 per 1000 litres of water in the system. Repeat until control is achieved.

**Subsequent Dose:** When microbial control is evident, add 100 mL to 333 mL of GQ 142 per 1000 Litres of water in the system weekly, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

#### CONTINUOUS FEED METHOD

**Initial Dose:** When the system is noticeably fouled, apply 333 mL to 1.3 L of GQ 142 per 1000 Litres of water in the system.

**Subsequent Dose**: Maintain this treatment level by starting a continuous feed of 50 mL to 333 mL of GQ 142 per 1000 Litres of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

# **SERVICE WATER AND AUXILIARY SYSTEMS**

GQ 142 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 that will allow uniform mixing throughout the system.

#### **HEAT TRANSFER SYSTEMS**

(Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers and Retorts, and Pasteurizers and Warmers and Once-Through Cooling Water Systems)

GQ 142 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.

Deactivation must be conducted prior to discharge from the system by using bentonite clay at a minimum of 7.5 ppm of clay to 1 ppm of product.

DO NOT apply this product more than four (4) times per year. The duration of treatment must not exceed 24 hours per application.

### **INDUSTRIAL WASTEWATER SYSTEMS**

(Wastewater Systems, Wastewater Sludge and Wastewater Holding Tanks)

GQ 142 should be added to a wastewater system or sludge at a convenient point of uniform mixing such as the digester. Add 1.6 to 8.0 Litres (1600 to 1800 ppm) GQ 142 per 1000 Litres of wastewater or sludge.

#### WATER FLOOD AND INJECTION SYSTEMS

Add GQ 142 to a water flood or water injection system at a point of uniform mixing at rates from 60 to 3650 ppm of GQ 142 (0.06 Litres to 3.65 Litres GQ 142 per 1000 litres flood water).

**Initial Treatment:** When the system is noticeably contaminated, add GQ 142 to the system and repeat until control is achieved.

**Subsequent dose:** When microbial control is evident, add GQ 142 to the system weekly, or as needed to maintain control.

### **OIL AND GAS FRACTURING FLUIDS**

GQ 142 reduces bacterial contamination and degradation of fracturing fluids and gels used in oil and gas well stimulations. Add GQ 142 to the fracturing water storage tanks or directly into the well head injection pipeline as the water is being pumped down-hole.

**Dose Range:** Add GQ 142 at a rate of 360 to 1525 ppm (0.36 Litres to 1.525 Litres GQ 142 per 1000 litres fracturing water) depending on the degree of bacterial fouling in the source water.

# DRILLING MUDS/DRILLING, COMPLETION, WORKOVER FLUIDS AND PACKER FLUIDS

Add GQ 142 to a drilling fluid system and packer fluids at a point of uniform mixing such as the circulating mud/holding tank. Add 150 to 600 ppm of GQ 142 (0.15 Litres to 0.6 Litres GQ 142 per 1000 litres fluid) to a freshly prepared fluid, depending on the severity of contamination. For packer fluids, seal the treated fluid in the wall between the casing and production tube.

### OIL AND GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS

Add GQ 142 to an oil/gas production or transmission line via direct injection at rates from 60 to 3650 ppm of GQ 142 (0.06 Litres to 3.65 Litres GQ 142 per 1000 litres of water). The application should be conducted to ensure maximum distribution of GQ 142 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 GQ 142 with an appropriate solvent (i.e. water, acetone or glycol) immediately before use. Injections to the system should be weekly, or as needed to maintain control.

## PIPELINE PIGGING AND SCRAPING OPERATION

Add GQ 142 to a slug of water immediately following the scraper (ideally this water volume can be kept to a minimum and contained between the scraper and a trailing pig). Add GQ 142 at a rate of 60 to 3650 ppm of GQ 142 (0.06 Litres to 3.65 Litres GQ 142 per 1000 litres of water), depending on the length of the pipeline and the severity of biofouling

# PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS

GQ 142 should be added to a paper-making system at a point of uniform mixing such as the head box, beaters, broke chest, save-all tank, or white-water tank.

**Initial Treatment:** When the system is noticeably contaminated, add 0.76 to 4.5 kg of GQ 142 per metric tonne 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 0.46 to 3.0 kg of GQ 142 per metric tonne of pulp or paper (dry basis) as a slug dose as necessary to maintain control.

# WATER BASED COATINGS, PIGMENTS AND FILLER SLURRIES FOR PAPER AND PAPER BOARD

NOTE: For use in non-food contact coatings only.

Add 0.3 to 1.8 Kg GQ 142 per metric ton of dry slurry to produce a concentration of 300 to 1800 ppm as product (based on slurry solids) in the mixed slurry.

When used as an in-can preservative in which paints may be applied in a residential setting, the maximum application rate for paints is 100 ppm.