MC B-8642

Solution

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

ACTIVE INGREDIENT:

Glutaraldehyde......42.5% n-Alkyl (C12 40%, C14 50%, C16 10%) dimethyl benzyl ammonium chloride.....7.5%

REGISTRATION NO. 32165PEST CONTROL PRODUCTS ACT

COMMERCIAL

DANGER

POISON

CORROSIVE

CORROSIVE TO EYES AND SKIN POTENTIAL SKIN AND RESPIRATORY TRACT SENSITIZER

READ THE LABEL BEFORE USING

Net Contents: Made in the USA

Halliburton Canada ULC

Suite 2000, 700 – 9th Avenue SW, Calgary, AB, T2P 3V4

403-231-9300 (Non-Emergency Telephone Number)

Emergency Contact Number (24 Hours per Day): 1-866 519-4752 or 1-760-476-3962

Global Incident Response Access Code: 334305

Contract Number: 14012

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 HAZARDS

This product is toxic to fish and other aquatic organisms. It is not to be used in circumstances that would cause or allow it to enter lakes, streams, ponds, estuaries, oceans or other waters in contravention of federal or provincial regulatory requirements. DO NOT discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. The requirements of applicable laws should be determined before using the product.

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: Contact a poison control centre or doctor immediately for treatment advice. If the person is fully alert and cooperative, have the person rinse mouth with plenty of water. In cases of ingestion have the person drink 120-240 mL (4 to 8 ounces) of water. Do not induce vomiting. Do not attempt mouth rinse if the person has respiratory distress, altered mental status, or nausea and vomiting. 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.

STORAGE AND HANDLING

To prevent contamination store this product away from food or feed. MC B-8642 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 -14°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.

DISPOSAL:

- 1. Triple or pressure-rinse the emptied container. Add the rinsings to the treatment site.
- 2. Follow provincial 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 requirements.
- 5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

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 addition 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. DO NOT discharge effluent containing this product into sewer systems, lakes, streams, ponds,

estuaries, oceans or other waters. 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.

MC B-8642 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 MC B-8642. Under these conditions, blowdown should be discontinued for up to 24 hours. MC B-8642 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 100 mL to 400 mL of MC B-8642 per 1000 Litres of water in the system. Repeat until control is achieved. **Subsequent Dose:** When microbial

control is evident, add 30 mL to 100 mL of MC B- 8642 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 100 mL to 400 mL of MC B-8642 per 1000 Litres of water in the system.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 15 mL to 100 mL of MC B-8642 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

MC B-8642 should be used at the same application rates, and in the same manner as described above. It should be added at a point that will allow for uniform mixing throughout the system.

HEAT TRANSFER SYSTEMS

(Cooling Water Systems)

MC B-8642 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) MC B-8642 should be added to a wastewater system or sludge at a convenient point of uniform mixing such as the digester. Add 0.5 Litres to 2.5 Litres (500 to 2500 ppm MC B-8642) per 1000 Litres of wastewater or sludge.

WATER FLOOD AND INJECTION SYSTEMS

Add MC B-8642 to a water flood or water injection system at a point of uniform mixing at rates from 20 to 1200 ppm of MC B- 8642 (0.02 Litres to 1.2 Litres MC B-8642 per 1000 litres flood water).

Initial Treatment: When the system is noticeably contaminated, add MC B-8642 to the system and repeat until control is achieved.

Subsequent dose: When microbial control is evident, add MC B-8642 to the system weekly, or as needed to maintain control.

OIL AND GAS FRACTURING FLUIDS

Add MC B-8642 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 MC B-8642 at a rate of 120 to 500 ppm (0.12 Litres to 0.5 Litres MC B-8642 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 MC B-8642 to a drilling fluid system and packer fluids at a point of uniform mixing such as the circulating mud/holding tank. Add 50 to 200 ppm of MC B-8642 (0.05 Litres to 0.2 Litres MC B-8642 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 MC B-8642 to an oil/gas production or transmission

line via direct injection at rates from 20 to 1200 ppm of MC B-8642 (0.02 Litres to 1.2 Litres MC B-8642 per 1000 litres of water). The application should be conducted to ensure maximum distribution of MC B-8642 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 MC B-8642 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 MC B-8642 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 MC B-8642 to a rate of 20 to litres of water), depending on the length of the pipeline and the severity of biofouling.

PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS

MC B-8642 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

Initial Treatment: When the system is noticeably contaminated, add 0.25 kg to 1.5 kg of MC B-8642 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 0.15 kg to 1.0 kg of MC B-8642 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.

Use from 0.1 kg to 0.6 kg of MC B-8642 per metric tonne of dry powder to produce a concentration of 100 to 600 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.