G€F6-0525 G€F6-02-18

BIOCLEAR 30 LT

SOLUTION

A MICROBIOCIDE FOR USE IN CONTROLLING SULFATE -REDUCING BACTERIA AND SLIME - FORMING BACTERIA IN OILWELL DRILLING, OIL FIELD PROCESSING APPLICATIONS, OILFIELD WATER SYSTEMS, GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS, AND GAS STORAGE FIELDS AND EQUIPMENT; SUCH AS STEAM - INJECTION WATER HOLDING TANKS, FLOOD WATER, INJECTION WATER, HOLDING POND WATER, DISPOSAL - WELL WATER, WATER HOLDING TANKS, FUEL STORAGE TANKS AND RELATED REFINERY AND OIL FIELD CLOSED INDUSTRIAL RECIRCULATING WATER HANDLING SYSTEMS.

REGISTRATION NO. 23867.01 PEST CONTROL PRODUCTS ACT

COMMERCIAL

DANGER POISON {Poison Logo} CORROSIVE {Corrosive Logo} EXTREMELY FLAMMABLE CORROSIVE TO EYES AND SKIN POTENTIAL SKIN SENSITIZER

READ THE LABEL BEFORE USING

Lubrizol Canada Limited Suite 201 3700 Steeles Avenue West Vaughan ON L4L 8K8

EMERGENCY CONTACT: 587-956-0500 24 HOUR CHEMTREC CONTACT: Within Canada or USA: 1-800-424-9300 Outside Canada or USA: +1 703-527-3887 (call collect)

Net contents: Made in USA

PRECAUTIONS HAZARDS TO HUMANS DANGER

KEEP OUT OF REACH OF CHILDREN

Corrosive. Causes irreversible eye damage. Causes skin burns. Harmful if inhaled. Harmful or fatal 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. Do not inhale fumes or vapor. Do not swallow.

Wear face shield, goggles, and coveralls over long-sleeved shirt and long pants, chemicalresistant gloves, socks and chemical-resistant footwear during mixing, loading, application, clean-up 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 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. The requirements of applicable laws should be determined before using the product. DO NOT discharge effluent containing this product into sewer systems, lakes, streams, ponds, estuaries, oceans or other waters.

PHYSICAL AND CHEMICAL HAZARDS

Extremely Flammable! Keep away from heat, sparks and open flame.

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 30 minutes. Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or 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 SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor.

Do not give any liquid to the person.

Do not give anything by mouth to an unconscious person.

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.

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.

STORAGE AND HANDLING

To prevent contamination store this product away from food or feed.

BIOCLEAR 30 LT 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 - 43° 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 empty 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. The user assumes the risk to persons or property that arises from any such use of this product.

DIRECTIONS FOR USE

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.

WATER FLOODS

BIOCLEAR 30 LT should be added to a water flood system at a point of uniform mixing. **Initial Treatment:** When the system is noticeably contaminated, add 167 to 8333 ppm BIOCLEAR 30 LT (0.2 to 8.3 Liters BIOCLEAR 30 LT per 1000 Liters flood water). Repeat until control is achieved.

Subsequent dose: When microbial control is evident, add 33 to 8333 ppm BIOCLEAR 30 LT (0.03 to 8.3 Liters BIOCLEAR 30 LT per 1000 liters flood water) to the system weekly, or as needed to maintain control.

DRILLING, COMPLETION, AND WORKOVER FLUIDS

BIOCLEAR 30 LT should be added to a drilling fluid system at a point of uniform mixing such as the circulating mud tank.

Initial Treatment: Add 90 to 1665 ppm BIOCLEAR 30 LT (1.2 to 25 liters BIOCLEAR 30 LT per 100 barrels of fluid) to a freshly prepared fluid, depending on the severity of contamination.

Maintenance Dosage: Maintain a concentration of 90 to 1665 ppm BIOCLEAR 30 LT by adding 1.2 to 25 liters of BIOCLEAR 30 LT per 100 barrels of additional fluid, or as needed, depending on the severity of contamination.

PACKER FLUIDS

BIOCLEAR 30 LT should be added to a packer fluid at a point of uniform mixing such an a circulating holding tank. Add 90 to 1005 ppm BIOCLEAR 30 LT (1.2 to 16 liters BIOCLEAR 30 LT per 100 barrels of fluid) to a freshly prepared fluid, depending on the severity of contamination. Seal the treated packer fluid in the wall between the casing and production tube.

GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS

BIOCLEAR 30 LT should be added to a gas production or transmission line via direct injection. The application should be conducted to ensure maximum distribution of BIOCLEAR 30 LT through the entire internal surface of the pipeline by adding an amount of biocide which eventually comes out the other end of the pipeline. Criteria for success of the treatment will be reduction in bacterial count and/or corrosion rates. To facilitate application it may be desirable to dilute BIOCLEAR 30 LT with the appropriate solvent immediately before use. The concentration in the solvent should not fall below the 840 to 8340 range. Injections to the system should be made on a weekly basis, or as needed to maintain control.

GAS STORAGE WELLS AND SYSTEMS

Individual injection wells should be treated with a sufficient quantity of BIOCLEAR 30 LT to produce a concentration of 840 to 8340 ppm BIOCLEAR 30 LT 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 BIOCLEAR 30 LT to produce a concentration of 330 to 3330 ppm BIOCLEAR 30 LT 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 165 to 6660 ppm BIOCLEAR 30 LT (0.15 to 6.6 liters BIOCLEAR 30 LT per 1000 liters water), depending on water quality and length of time the equipment will remain idle.

PIPELINE PIGGING AND SCRAPING OPERATIONS

Add BIOCLEAR 30 LT 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). Sufficient BIOCLEAR 30 LT should be added to produce a concentration of 0.15 to 1.7% (0.15 to 1.7 liters BIOCLEAR 30 LT per 100 liters water), depending on the length of the pipeline and the severity of biofouling.

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