

BIOBAN™ CS-1135

FOR CONTROL OF BACTERIA IN AQUEOUS SYSTEMS PRESERVATIVE

Active Ingredients:

4,4-Dimethyloxazolidine	78.0%
Inert Ingredients	22.0%
Total	100%

E.P.A. Registration No. 464-660

E.P.A. Est. 48301-LA-01

KEEP OUT OF REACH OF CHILDREN

DANGER

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

**CAUSES IRREVERSIBLE EYE
DAMAGE AND SKIN IRRITATION •
HARMFUL IF SWALLOWED,
ABSORBED THROUGH SKIN OR
INHALED • COMBUSTIBLE LIQUID**

Do Not Get In Eyes, On Skin, On Clothing •
Avoid Breathing Vapor Or Spray Mist • Wear
Goggles or Face Shield And Chemical
Resistant Rubber Gloves When Handling •
Wash Thoroughly With Soap And Water
Immediately After Handling • Remove
Contaminated Clothing and Wash Before
Reuse • Remove Personal Protective
Equipment And Launder or Otherwise
Decontaminate It Immediately After Use • Do
Not Use Or Store Near Heat Or Open Flame



THE DOW CHEMICAL COMPANY

Midland, Michigan 48674 U.S.A.

(989)636-4400

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FIRST AID:

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told by the poison control center or doctor.

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment.

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

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression, and convulsion may be needed.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. 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 of Regional Office of the EPA.

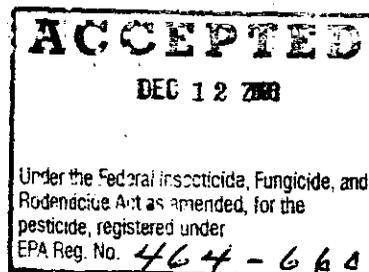
IN CASE OF AN EMERGENCY endangering life or property involving this product, call collect 989-636-4400.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE 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 the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.



CONTAINER DISPOSAL

Triple rinse (or equivalent). 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.

DIRECTIONS FOR USE

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

USE IN PAINTS, INKS, AND EMULSIONS

BIOBAN CS-1135 is effective as a preservative in water-containing systems, such as latex paints and inks and resin emulsions, at a concentration of 0.1 to 0.5 lb per 100 lb total formulation weight.

BIOBAN CS-1135 may be added at any point in the manufacturing cycle. The recommended rate for preservation of inks and latex paints is 0.1 to 0.2 lb per 100 lb of the formulation. The recommended rate for preservation of resin emulsions is approximately 0.2 lb per 100 lb of the formulation.

USE IN ADHESIVES (NON-FOOD CONTACT)

For control of microbial contamination, add 0.1 to 0.5 lb of BIOBAN CS-1135 per 100 lb total formulation weight.

USE IN OILFIELD WATER SYSTEMS

For controlling aerobic slime-forming bacteria (*Pseudomonas* sp.) or iron-oxidizing bacteria (*Gallionella* sp.) and anaerobic sulfate-reducing bacteria (*Desulfovibrio desulfuricans*) in oilfield water systems, such as subsurface injection water, add 5-150 ppm of BIOBAN CS-1135 depending on the severity of the contamination. Additions should be made with a metering pump at the free water knockouts before or after the injection pumps and injection well headers.

Continuous-feed method: If the system is noticeable fouled, add 20-150 ppm BIOBAN CS-1135 (1.7-12.8 gal per 2000 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 5-150 ppm BIOBAN CS-1135 (0.43-12.8 gal per 2000 barrels of water) continuously as needed to maintain control.

Intermittent or slug method: If the system is noticeable fouled, or to maintain control of the system, add 20-150 ppm BIOBAN CS-1135 (1.7-12.8 gal per 2000 barrels of water) intermittently for 2-8 hours per day on from 1-4 days per week, depending on the severity of contamination.

USE IN METALWORKING FLUIDS

In Diluted Fluids: A concentration of 1000-2000 ppm of BIOBAN CS-1135 is sufficient to control gross microbial growth. Add 1.0 to 2.0 pints of BIOBAN CS-1135 per each 100 gallons of fluid.

Maintenance Dosage: Add 250-500 ppm BIOBAN CS-1135 weekly as required to maintain control of the system. The addition of 8 ounces (1 cup) of BIOBAN CS-1135 to each 100 gallons of fluid will provide 500 ppm concentration.

In concentrates: BIOBAN CS-1135 may be incorporated in metalworking fluid concentrate by the manufacturer. BIOBAN CS-1135 normally will be stable in concentrates as long as the pH is maintained above 6. However, long-term stability studies should be carried out by the manufacturer on his specific formulations to ensure that the concentrate does not contain ingredients incompatible with BIOBAN CS-1135 stability. The amount to be incorporated will depend on the dilution factor recommended to be used when the concentrate is diluted for use. For efficient bacteriostatic activity, a concentration of 1000 to 2000 ppm of BIOBAN CS-1135 in the diluted fluid is suggested.

FOR USE IN PRESERVING DRILLING MUDS AND WORKOVER AND COMPLETION FLUIDS

Determine the volume of BIOBAN CS-1135 necessary to provide a concentration of 500-1000 ppm by weight of BIOBAN CS-1135 in the drilling mud system, workover and completion fluid. For example 21-42 gallons of BIOBAN CS-1135 per each 1000 barrels of drilling mud provides this concentration.

As the system circulates, add the BIOBAN CS-1135 in a thin stream.

Add additional BIOBAN CS-1135 to the system to maintain the proper concentration as the total volume of the system increases.

USE IN DIE-CAST LUBRICANTS AND MOLD-RELEASE AGENTS

To control the growth of microorganisms in fluids used as lubricants in metal die-cast applications and mold-release agents used in the manufacture of plastics.

In Diluted Fluids: A concentration of 1000-2000 ppm of BIOBAN CS-1135 is sufficient to control gross microbial growth. Add 1.0 to 2.0 pints of BIOBAN CS-1135 per each 100 gallons of fluid.

Maintenance Dosage: Add 250-500 ppm BIOBAN CS-1135 weekly as required to maintain control of the system. The addition of 8 ounces (1 cup) of BIOBAN CS-1135 per each 100 gallons of fluid will provide a 500 ppm concentration.

In concentrates: BIOBAN CS-1135 may be incorporated in fluid concentrate by the manufacturer. BIOBAN CS-1135 normally will be stable in concentrates as long as the pH is maintained above 6. However, long-term stability studies should be carried out by the manufacturer on his specific formulations to ensure that the concentrate does not contain ingredients incompatible with BIOBAN CS-1135 stability. The amount to be incorporated will depend on the dilution factor recommended to be used when the concentrate is diluted for use. For efficient bacteriostatic activity, a concentration of 1000 to 2000 ppm of BIOBAN CS-1135 in the diluted fluid is suggested.

CONSUMER, HOUSEHOLD AND INSTITUTIONAL PRODUCTS

To inhibit bacterial spoilage during the production and shelf-life storage and use of consumer, household and institutional products including dishwashing liquids, surface cleaners, laundry cleaners and polishes. Dose at 0.04 to 0.2 lb per 100 lb (400-2000 ppm). Not for use where contact with food will occur.

MINERAL SLURRIES

For the control of microbial contamination in mineral slurries add 0.04 to 0.2 lb per 100 lb slurry (400-2000 ppm) BIOBAN CS-1135.

SURFACTANTS

To inhibit bacterial spoilage during shelf-life storage and the use of bulk anionic, nonionic amphoteric and cationic surfactants when supplied for the manufacture of industrial and consumer products. BIOBAN CS-1135 should be dosed at 0.04-0.2 lb per 100 lb based on the final formulation volume.

**FLAMMABLE LIQUID N.O.S.
(4,4-DIMETHYLOXAZOLIDINE)**

UN1993

Apply Flammable Liquid 3
wText and Number label.

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12/12/2003

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