AMB-100 Microbiocide

AMB-100 is an effective, long term liquid antimicrobial agent containing 24% Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione (Dazomet) in a true solution, that is readily dispersible in water. The product is packaged 55-gal drums, 275-gal tote bins and bulk tank trucks (approx. 45,000 lbs).

AMB-100 is a broad-spectrum microbiocide that is effective in the control of bacteria, fungi, and algae. The product is approved for use in petroleum industry in production enhancement, drilling fluids, and secondary recovery operations. It is an effective, easy to feed liquid formulation. Provides longer term kill than conventional oilfield biocides. It is extremely effective against acid producing bacteria. Its unique advantage to being a broad spectrum kill is that it breaks down into several biocidal compounds. It has no compatibility issues with oxygen scavengers, it is Non-ionic (does not interact with separation aids or friction reducers), Non-emulsifying and a freeze point of < -4^{0}F making it especially good for cold weather applications.

Methods of Application

Drilling, Production Enhancement, and Rework Fluids: To inhibit bacterial and fungal degradation of the fluids and muds used in the drilling, stimulation treatments, and rework of oil and gas wells. AMB-100 can be added at concentrations of up to 2000 ppm. Typical stimulation treatments will use ~ 500 ppm (1/2 gal/1000 gals fluid), but this is dependent on make-up water's bacterial contamination, or for insurance against formation contamination. The product should be added to the water used to make up the fluids to ensure adequate dispersal of the microbiocide, either on the fly or via pre-add to a frac tank or container.

Petroleum Secondary Recovery: AMB-100 can be used to control microorganisms in oil field water, polymer, or micellar floods, water disposal systems, and other oil-field water systems. AMB-100 should be applied at a rate of 200 to 2500 ppm of water to be treated, depending on the anticipated amount of bacteria present.

Additions should be made from a chemical feed tank either continuously or intermittently to the free water knockouts, before or after injection pumps or other convenient locations.

Packaging and Handling

AMB-100 is packaged 55-gal drums, 275-gal tote bins and bulk tank trucks (approx. 45,000 lbs)

In the event of a spill, special precautions must be taken to avoid contact with the skin. Improper handling of this product can be hazardous to workers or the environment. **Observe all safety, storage and disposal precautions shown on the label and in the Material Safety Data Sheet.**

Typical Product Characteristics

Active ingredients:
Tetrahydro-3,5-dimethyl-2H-1,3,
5-thiadiazine-2-thione (Dazomet)……..…...24%
Inert Ingredients…….……76%
Appearance……Yellow to Light Green Liquid
Odor……..……..Slight, organic
Density……..1.16 g/cm^3

AMB-100 Thione Biocide

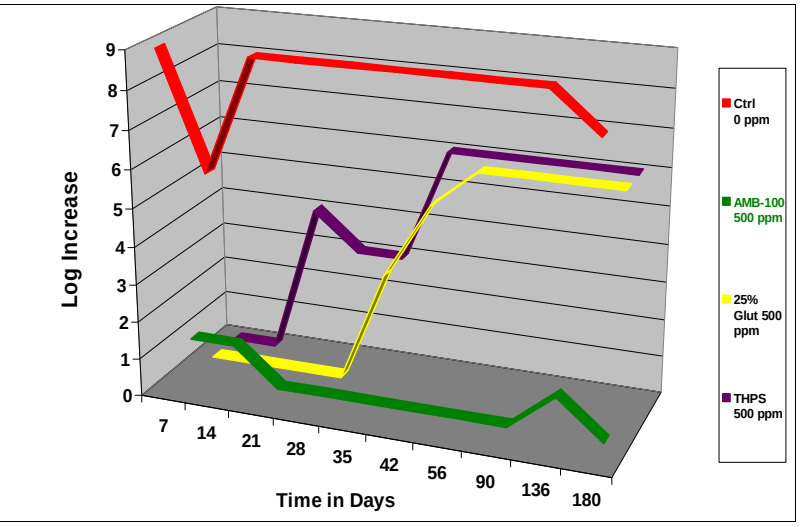
Long-Term Microbio Control for Oilfield

Summary of Features and Benefits:

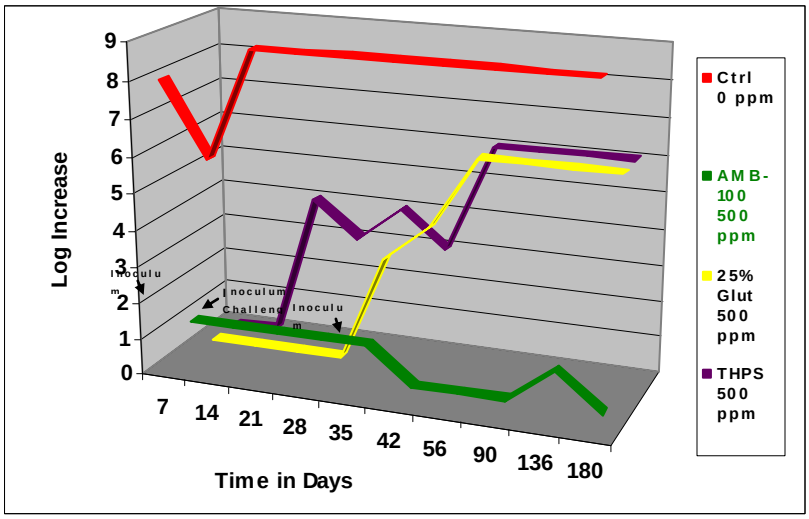
- Effective, cost efficient, and offered as a true solution liquid
- Provides longer term kill than conventional oilfield biocides
- Extremely effective against acid producing bacteria and SRBs
- Broad spectrum of kill (breaks down into several biocidal compounds that prevents isolation of organisms)
- No compatibility issues with oxygen scavengers
  - … Product itself is reductive and is not antagonistic with O2 scavengers
- Non-ionic and has no charge either cationic or anionic preventing interaction with other additives
- Non-emulsifying, therefore does not affect surface tension – no emulsification of oil into the water
- Low freezing point for cold weather application (< -4^{o}F for AMB-100)

SES Sooner Energy Services
a Flotek company

SULFATE REDUCING BACTERIA



ACID PRODUCING BACTERIA



Compatibility - Friction Reducers