CONQOR 404 EH is an all-purpose, water-soluble organophosphate compound.

It is a passivating type of corrosion inhibitor used to prevent corrosion on metal surfaces.

**Typical Physical Properties**

- **Physical appearance**: Clear yellow liquid
- **Specific gravity**: 1.43-1.44
- **pH of 5% solution**: 7-8.5
- **Flash point**: >200 degF (>93 degC)
- **Pour point**: -10 degF (-23 degC)

**Applications**

CONQOR 404 EH inhibitor is used as a corrosion inhibitor for low solids, no-dispersed water-base polymer drilling fluids, brine water systems and air/mist/foam fluids. It is effective at relatively low concentrations as 2.5 gallons for every 100 barrels (0.6 L/m³). CONQOR 404 EH additive is well suited for applications where calcium scale deposition is a problem and is especially effective in highly aerated fluids such as under balanced drilling operations.

Typical recommended treatment of CONQOR 404 EH inhibitor is 2.5 gallons for every 100 barrels (0.6 L/m³) of make-up fluid depending on anticipated conditions, other chemicals used in the system, and the corrosive environment, i.e., salinity, pH, temperature, oxygen content and acid gases. If the corrosion rate is unacceptably high, the concentration should be increased to at least 7 gallons/100 barrels (1.7 L/m³). For aerated systems, an initial treatment of 12 gal/100 bbl (2.9 L/m³) is recommended. The product should be evenly dispersed throughout the circulating mud system and can be added either through the chemical barrel or directly to the mud pits wherever good agitation occurs.

The corrosion rates should be monitored at all times with corrosion coupons and treatments should be adjusted according to their analysis. A good corrosion-control program includes a thorough make-up-water analysis, chemical treatments for corrosive contaminants and an adequate bacterial control for systems that contain biodegradable additives.

**Advantages**

- Effective in high calcium fluids even when the soluble calcium concentration exceeds 200 mg/L Ca++
- Compatible with anionic foamers
- Highly effective against oxygen corrosion caused by dissolved oxygen
- Low toxicity
- Minimum rheology impact on fluids
- Effective in waters from fresh to saturated salt water
- Effective in aerated fluids such as those used in air-drilling operations
- Effective to temperatures in excess of 350 degF (177 degC)
- Does not require an oxygen scavenger.
Limitations
- Should not be used in packer fluids or other situations where the fluid will not be circulated nor on racked pipe.
- Should not be diluted with alcohol.

Toxicity and Handling
Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the Material Safety Data Sheet (MSDS).

Packaging and Storage
CONQOR 404 EH additive is packaged in 55-gal (208-L) epoxy lined steel drums and in 5 gallon plastic pails. It is not a DOT regulated material.

Store in a dry, well-ventilated area. Keep container closed. Keep away from heat, sparks and flames. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.