

Technical Data Sheet

BIONIC-C212: Drilling Glycol

1. General Information

BIONIC-C212 is a high temperature cloud-point, wide molecular weight range polyalkylene glycols mixture, designed for water based drilling mud. It can provide improved wellbore stability, shale inhibition, increased lubricity, high temperature filtration control, plus reduce bit balling potential.

2. Typical Physical properties

Appearance	Light brown liquid
Specific gravity, 20°C	1.1 ±0.01
PH (neat)	6-8
Cloud point (3% in 15% brine), °C	80-90
Water content, %	Max. 2
Solubility at 20°C	Fresh water & brine
Viscosity, 20 °C, CP	40
Flash point CC, °C	>100

**The properties listed above are typical value and may subject to change*

3. Application

BIONIC-C212 is recommended for freshwater to seawater makeup water and most effective when used in conjunction with an inhibitive salt. This additive helps to stabilize troublesome shale by reducing liquid phase activity and by plugging shale pores, preventing the equalization of hydrostatic pressure away from the wellbore.

Polyglycol have application where water-sensitive shale are to be drilled, and can be used instead of oil-based systems for certain applications. **BIONIC-C212** can be used in thermally activated Mud emulsion applications or in situation where it is insoluble (above the cloud point). Normal dosages ranges from 2 to 5% (7 to 17.5 lb/bbl) of drilling mud.

4. Health information

Avoid breathing vapors and contact with skin eyes and clothing. Wash thoroughly after handling. In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

5. Storage/Handling

Keep away from heat, sparks and open flames. Keep containers closed. Other normal precautions for process chemicals apply.

Do not get in eyes, on skin, on clothing. Do not breathe vapors/gases/dust. Keep the containers closed when not in use.

6. Suitable Construction Material

HDPE (high density polyethylene), stainless Steel 304, Stainless Steel 316L, MDPE (medium density polyethylene)

7. Human Health Hazards

• INHALATION

Irritating in high concentrations, to the eye, nose, throat and lungs.

• SKIN CONTACT

May cause irritation depending on the length of exposure and the type of first aid administered.

• EYE CONTACT

Corrosive, may cause eye burns.

8. Material Compatibility

Avoid contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate). Avoid Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic and sulfonic).

9. Packaging

BIONIC-C212 is available in 55-gal steel drum with net 200 kg drums.

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