

## BENTONE® 34 GG

### GENERAL INFORMATION

**BENTONE 34 GG** rheological additive is a gellant for a wide range of mineral oils, synthetic and other organic fluids of medium to low polarity.

### CHEMICAL AND PHYSICAL PROPERTIES

Composition	Quaternary ammonium bentonite
Color	Light buff
Form	Finely divided powder
Fineness	95% through 200 mesh
Particle size (dispersed) maximum dimension	0.8 by 0.8 by 0.0025 micron
Density	1.70 g/cm <sup>3</sup>
Moisture	3.0% maximum

These are typical properties not to be used for specification purposes.

### APPLICATIONS

**BENTONE 34 GG** is easy to disperse and suitable for lubricating greases based on medium to high VI paraffinic oils, synthetic oils and other organic fluids. Many of these greases find application in mining, farming, military and metal refining.

### KEY PROPERTIES

- Ease of manufacturing
- Resistance to melting
- Inhibits oil separation
- Excellent worked stability
- Excellent high temperature stability

### INCORPORATION

#### Equipment

**BENTONE 34 GG** additive can be readily blended into oils and fluids using normal grease equipment.

The product produced must be sheared through a colloid mill or homogenizer to obtain maximum yield.

### Process

Grease is generally manufactured at room temperature and requires no heat for the gelation of the oil. Typical level of use is 5-10% based on total formulas.

The normal process briefly is:

1. Mix **BENTONE 34 GG** with 1/2 to all of the oil.
2. Add polar activator\* and mix until gelation occurs.
3. Add remaining oil and additives.
4. Mill.

#### \*Polar Activators

Below are common polar activators with typical starting point use levels. Polar activator level should be optimized for each grease formulation.

	Use range based on weight of organoclay
Acetone	25% - 40%
Methanol/H <sub>2</sub> O 95/5	7 - 20%
Ethanol/ H <sub>2</sub> O 95/5	12 - 28%
Propylene Carbonate	8 - 25%

### HEALTH AND SAFETY DATA

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

### SHELF LIFE

**BENTONE 34 GG** has a shelf life of 4 (four) years from date of manufacture.

### QUALITY ASSURANCE

Since 1992 the company is a holder of the ISO 9001 / ISO 9002 certificates, which guarantees that all operations are conducted according to the stipulated standards.

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