

Water Technologies & Solutions fact sheet

Butaclean* 4616

antifoulant

Butaclean 4616 is designed to:

- Decrease production losses
- Extend run length
- Increase efficiencies in heat transfer equipment and other process equipment
- Reduce pressure drop constraints
- Stabilize crude butadiene feedstocks

description and use

Butaclean 4616 is a blend of chain terminators designed to inhibit free radical polymerization fouling in petrochemical equipment. Butaclean 4616 is specifically designed for treatment of free radical polymerization in the presence or absence of oxygen.

application

Butaclean 4616 is far superior to Tertiary Butyl Catechol (TBC) for peroxide inhibition in various applications. Therefore, Butaclean 4616 is excellent in stabilizing reactive product streams during storage or shipment (i.e., crude butadiene feedstocks).

Free radical stabilization protection is comparable to common amine-based antioxidants. Butaclean 4616 can be used in place of amine-based antioxidants if final product color requires improvement.

Butaclean 4616 is extremely effective any time strong amines cannot be used and a hindered phenol is not as effective.

Fouling apparatus test data confirms Butaclean 4616 is far more effective than commonly used phenolic chemistries in preventing fouling of olefinic feedstocks under high temperature conditions. This product can be used in columns, reboilers, and preheat systems.

treatment

Proper treatment levels for Butaclean 4616 depend on many factors such as olefins content, temperature, residence time, and degree of oxygen contamination.

Assessment of these factors will aid the SUEZ representative in recommending treatment rates and control procedures specific to each application.

feeding

Butaclean 4616 is typically fed neat, but can be diluted to a convenient strength with a hydrocarbon solvent such as naphtha or kerosene, if necessary.

For consistent protection, Butaclean 4616 should be fed continuously by a chemical proportioning pump. Injection points should be as far upstream as possible of the overhead condenser or tankage, depending on the application, to assure maximum mixing and contact.

In crude butadiene applications, Butaclean 4616 should be fed to the hydrocarbon product (debutanizer overhead) prior to storage.

DO NOT MIX with other antifoulant chemicals unless compatibility has been checked and approved by SUEZ Product Management.

Avoid copper bearing alloys in the feed system. Also, avoid prolonged contact with PVC or fiberglass. Keep water out of the feed system.

evaluation

For best treatment performance the Butaclean 4616 program must be conscientiously evaluated by periodically recording critical unit parameters such



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as heat transfer, pressure drop, and equipment cleaning cycles. Column and reboiler applications can be proven by reduced pressure differentials and increased run lengths.

Compressor applications can be monitored by polytropic efficiency, vibration measurements, and discharge temperature.

Gum and peroxide tests can be employed, when appropriate, to insure proper treatment levels in finished product tankage. Butaclean 4616 retains properties required to allow SUEZ residual testing.

safety precautions

A Material Safety Data Sheet containing detailed information about this product is available on request.

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