

Technical Data Sheet

Eastman BioExtend™ 30 Antioxidant Solution

Chemical Synonym

Antioxidant Solution

Applications

- Biodiesel antioxidants

Key Attributes

- Amenable to conventional pumping systems
- Flashpoint 46°C
- Formulated for extreme cold—stable at -25°C
- Low odor
- Low-viscosity liquid solution—no premixing
- Metal chelator protects against metal contamination
- Outstanding performance at low concentrations
- Revitalizes oxidized fuel

Product Description

Revitalize biodiesel. Reinvigorate sales.

With superior performance at low concentrations, Eastman BioExtend™ 30 antioxidant solution slows down the oxidation process to prolong the shelf life of your biodiesel. What's more, you can also use it to revitalize oxidized fuel—and reinvigorate your sales in the process.

BioExtend 30 is a combination of MTBHQ, a powerful antioxidant, and an effective metal chelating agent. This specific dual-functioning system significantly boosts anti-oxidative performance. Laboratory testing shows the benefits of re-treating with BioExtend 30 to improve oxidative stability.

After weeks of accelerated aging, the reintroduction of Eastman BioExtend™ 30 antioxidant solution was found to improve oxidative stability that had declined with time. Even after 12 weeks, there was a substantial improvement. This improved stability through re-treating can be an advantage to producers who are required to ship their biodiesel overseas or store biodiesel for extended periods of time.

Typical Properties

Property	Typical Value, Units
General	
Physical Form	Liquid
Color	Clear to amber
Liquid Density @ 25°C	0.989 g/cm ³
Flash Point Setaflash Closed Cup	46 °C (114.8 °F)
Boiling Point	174.6 °C
Thermal Stability	> 401 °C
Solubility in Biodiesel	Excellent
Effectiveness in Biodiesel	Excellent
Composition	
Citric Acid	1.5 %
MTBHQ	30 %

Processing Guidelines

- *BioExtend* 30 is a liquid, formulated as a ready to use antioxidant solution. It does not require dilution with biodiesel or other solvent system for use, but may be diluted into biodiesel for delivery.
- While storing, pumping and dosing, the temperature of the *BioExtend* 30 solution should be in the range of -25 °C to max +40°C. It can be pumped and dosed to the biodiesel with commonly used equipment.
- *BioExtend* 30 has a flashpoint of 46°C (114.8 °F). When mixed with biodiesel at no greater than a 1% concentration (10,000 ppm), the flashpoint of the resulting solution is greater than 175°C. If, while processing, the flashpoint of either *BioExtend* 30 or the resulting mixture will exceed its respective flashpoint, good engineering practices around fire prevention (ground and bonding, nitrogen blanketing, etc.) as outlined in the National Fire Protection Association Code 30 (Flammable & Combustible Liquids Code) should be followed.
- The temperature of the biodiesel, during and after addition of *BioExtend* 30, should not exceed 100°C.
- *BioExtend* 30 will rapidly blend with any type of biodiesel. A typical stirring time in a mix tank is 10 minutes which should ensure a homogenous mixture. *BioExtend* 30 is also amenable to in-line mixing.

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