

# MAYZO

**BNX<sup>®</sup> 1000**  
**A Liquid Antioxidant System**



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## BNX<sup>®</sup> 1000

### A Synergistic Liquid Antioxidant System

**Introduction:** BNX<sup>®</sup> 1000 is a unique proprietary blended liquid antioxidant system containing components that are highly effective in the protection of adhesives, rubber, resins, and other polymer systems. This product has the advantage of a liquid physical form. Compared to solid antioxidants, BNX<sup>®</sup> 1000 provides ease in blending and should result in lower loading requirements since it disperses completely, virtually eliminating the particle dispersion problems associated with traditional powder antioxidants. BNX<sup>®</sup> 1000 is an effective, non-discoloring stabilizing system that provides excellent long-term heat stability by preventing thermo-oxidative degradation during processing and service life. BNX<sup>®</sup> 1000 can also be synergistically blended with other stabilizers like BLS<sup>®</sup> 531, BLS<sup>®</sup> 1328, and hindered amine light stabilizers to provide added protection. Extensive testing has proven BNX<sup>®</sup> 1000 to be especially effective in the new generation of hot melt and water base adhesive systems, providing increased heat and extended oxidation resistance.

**Material Description:** Liquid Antioxidant and Thermal Stabilization System

**Chemical Name:** Proprietary formula

**Empirical Formula:** Proprietary formula

**CAS #:** Proprietary formula

**Physical Properties:**

Appearance:	Slightly opaque amber liquid
Weight per gallon:	8.0 – 8.4 pounds
Flashpoint:	> 350°F (Open Cup Test)
Heat Resistance:	No Change (at 350°F, 24 hr. Brookfield Test)
Volatile Matter:	< 0.5% Max. (in 20 hr. at 150°F)
Ash	< 0.1% Max.
U.V. (Sunlight Aging):	No Change after 4 days exposure in Pressure Sensitive Adhesives
Viscosity (at 25°C):	500 – 1000 cps
Odor:	Odorless

**Applications:** BNX<sup>®</sup> 1000 is a unique liquid antioxidant system that can be utilized in adhesives, rubber, resins, and other polymer substrates. This high molecular weight antioxidant system also provides excellent stabilization in the new generation of hot melt and water based adhesive systems. BNX<sup>®</sup> 1000 is highly efficient, non-discoloring stabilizers with low volatility and good extraction resistance that has compatibility with a wide range of organic substrates. The liquid polymer base ensures broad and effective dispersion in solvent and water-based system. The liquid polymer base also allows for slow and consistent release of the antioxidant. BNX<sup>®</sup> 1000 provides better antioxidant properties than pigmented dispersion system of antioxidants. BNX<sup>®</sup> 1000 contains an inhibitor for the catalytic oxidation incurred by metals. BNX<sup>®</sup> 1000 can also be used in combination with other light stabilizers like benzophenones, benzotriazoles and hindered amine light stabilizers to provide enhanced performance.

#### Advantages:

- Highly compatible with a wide range of organic substrates
- Liquid physical form provides for slow and consistent antioxidant release

- Liquid polymer base ensures broad and effective dispersion in solvent and H<sub>2</sub>O systems
- Disperses completely thus lowering loading requirements
- Eliminates particle dispersion problems
- Non-staining and non-discoloring
- Excellent resistance to extraction
- Odorless and tasteless
- Improvement of long-term stability
- Low volatility
- Contains an inhibitor for the catalytic oxidation incurred by metals
- Extensive FDA clearances
- Ease of compatibility with other stabilizers

**Loading****Instructions:**

The loading data and results are based on laboratory work (and field-testing) under controlled conditions and do not necessarily indicate the result that the buyer or user will attain. For this reason we strongly recommend testing of your own system under the actual conditions of processing and end-use prior to full scale testing. The recommended loading concentrations of BNX<sup>®</sup> 1000 in the polymers range between 1% and 5% depending on substrate, processing conditions, and long-term stability requirements. Exact loading must be determined by compositions of the specific polymer system.

**Packaging:**

BNX<sup>®</sup> 1000 is available in liquid form in a 55 gallon (approximately 451 pounds, net weight) plastic drum.

**Storage:**

This product may be stored up to one year in a sealed container. Containers should be stored in a cool, dry area. Extended storage at elevated temperatures or exposure to direct heat or sunlight could reduce product life. Keep containers sealed when not in use.

**Toxicity & Safety:**

This material is not intended for use in products for which prolonged contact with mucous membranes or abraded skin, or implantation within the human body is specially intended, unless the finished product has been tested in accordance with the Food and Drug Administration and/or other applicable safety testing requirements. Because of wide range of such potential uses, Mayzo, Inc. is not able to recommend this material as safe and effective for such uses and assumes no liability for any such uses. Read and understand the Material Safety Data Sheet before using or handling this product.

**FDA Regulations:**

BNX<sup>®</sup> 1000 has extensive FDA approval for indirect food contact. Contact your Mayzo representative for specific details.

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