



Mayzo Makes It Possible

## BNX<sup>®</sup> MD-1097

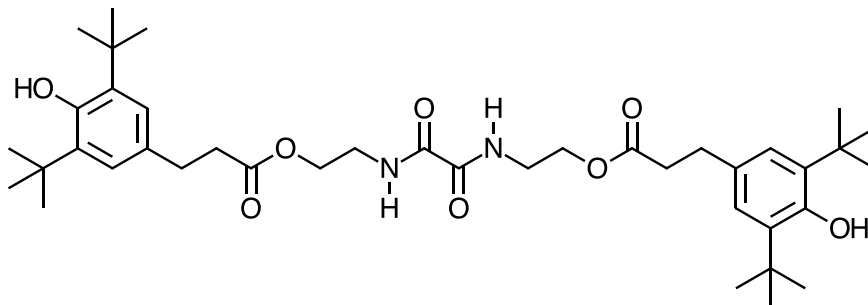
### Antioxidant and Metal Deactivator

#### Overview

BNX MD-1097 is a hindered phenolic antioxidant and metal deactivator used for reducing or preventing the harmful effects of copper and other transition metals on polymers during processing and long-term service.

#### Chemistry

Chemical Name: Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-,  
1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(imino-2,1-ethanediyl)] ester  
CAS Number: 70331-94-1  
Chemical Structure:



#### Typical Properties

Product Form: Solid  
Melting Range: 170 – 180°C  
Molecular Weight: 696.9 g/mol

#### Solubility (percent by weight, 20°C)

Acetone	10	Methanol	0.03
Chloroform	35	Styrene	5
n-Hexane	0.03	Water	<0.01

#### Applications

BNX MD-1097 is highly effective to prevent the harmful effects of copper conductors in polymers used as primary wire and cable insulation, including polypropylene, high- and low-density polyethylene, ethylene-vinyl acetate copolymers, and some thermoplastic elastomers. It is also recommended for use other polymer systems where contact with metals may affect polymer properties and stability, including polystyrene, polyesters, and others. Other application areas include hot melt and solvent-based adhesives, mineral-filled plastics, powder coatings and other

coatings on metals, and in rubber or plastic gaskets and plastic fabricated parts in contact with catalytic metals.

### Advantages

- Low volatility
- Strong synergistic effect with phosphites, other hindered phenols, and thioethers
- Non-staining and non-discoloring
- FDA cleared for use in adhesives, polystyrene, and olefin polymers

### Guidelines for Use

Recommended concentrations for use in plastics and adhesives range from 0.05 to 0.25%. Combinations of BNX MD-1097 with other antioxidants such as hindered phenols, phosphites, and thioethers often show synergistic performance. BNX MD-1097 is also suitable for use in combination with light stabilizers, including hindered amine light stabilizers (HALS), UV absorbers, and benzoates. The exact formulation to be used is dependent on the substrate, performance requirements, and other factors, and should be determined by the user based on testing to simulate actual conditions of use. Please contact Mayzo for specific recommendations.

### Storage

This product may be stored up to two years in a sealed container. Containers should be kept tightly closed when not in use and stored in a cool, dry place.

### Safety

Please consult the Safety Data Sheet (SDS) prior to handling or using this product.

### FDA Regulations

BNX MD-1097 is cleared for use in adhesives under 21 CFR §175.105 and in polystyrene (including rubber modified polystyrene) and olefin polymers under 21 CFR §178.2010. Please contact your Mayzo representative for complete details, including restrictions of use.

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