BNX® 565
Multifunctional Antioxidant and Thermal Stabilizer

Overview
BNX 565 is a high molecular weight, non-staining, multifunctional antioxidant developed for the stabilization of unsaturated elastomers (BR, IR, SBR, SIS, SBS, etc.), hot melt adhesives, and rosin ester tackifier resins.

Chemistry
Chemical Name: Phenol, 4-[[4,6-bis(octylthio)-1,3,5-triazin-2-yl]amino]-2,6-bis(1,1-dimethylethyl)–
CAS Number: 991-84-4

Chemical Structure:

![Chemical Structure Image]

Typical Properties
Product Form: Solid
Melting Range: 94 – 96°C
Molecular Weight: 589.0 g/mol

Solubility (percent by weight, 20°C)
- Acetone: 20
- Hexane: 6
- Benzene: 43
- Methanol: 1.4
- Chloroform: 39
- Water: <0.01
- Ethyl Acetate: 46

Applications
BNX 565 is a highly effective antioxidant for unsaturated elastomers such as polybutadiene, polyisoprene, styrene-butadiene rubber, and styrenic block copolymers such as SIS and SBS. BNX 565 is also useful for the stabilization of hot melt adhesives (especially those derived from unsaturated elastomers) and rosin ester tackifier resins.
Advantages

- Highly effective to prevent gel formation and discoloration in unsaturated elastomers, even at reduced concentrations vs. conventional antioxidants
- Non-discoloring and non-staining
- Low volatility

Guidelines for Use

Recommended concentrations in unsaturated elastomers, hot melt adhesives, and rosin ester tackifier resins range from 0.02 to 1%. Combinations of BNX 565 with other antioxidants such as phosphites often show synergistic performance. BNX 565 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 565 has extensive FDA clearances, including in adhesives under 21 CFR §175.105; in pressure sensitive adhesives under 21 CFR §175.125; in styrene block copolymers, polystyrene (including rubber-modified polystyrene), rosins and rosin derivatives, petroleum alicyclic hydrocarbon resins, and terpene resins under 21 CFR §178.2010; in rubber articles intended for repeated use under 21 CFR §177.2600; and in many other applications. Please contact your Mayzo representative for complete details, including restrictions of use.