



Mayzo Makes It Possible

BNX[®] 3052

Multifunctional Antioxidant

Overview

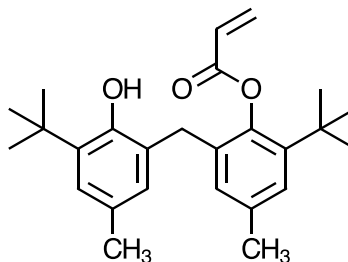
BNX 3052 is a multifunctional antioxidant for the stabilization of adhesives, elastomers, and plastics. Unlike conventional phenolic antioxidants, BNX 3052 is effective to scavenge alkyl (carbon-centered) radicals. The product is particularly active under demanding processing conditions (high temperature, high shear) and under anaerobic conditions.

Chemistry

Chemical Name: 2-Propenoic acid, 2-(1,1-dimethylethyl)-6-[[3-(1,1-dimethylethyl)-2-hydroxy-5-methylphenyl]methyl]-4-methylphenyl ester

CAS Number: 61167-58-6

Chemical Structure:



Typical Properties

Product Form: Solid

Melting Range: 134 – 138°C

Molecular Weight: 394.6 g/mol

Solubility (percent by weight, 20°C)

Acetone	9	Methanol	0.2
Chloroform	30	Methylene chloride	29
Ethanol	0.4	Toluene	2
Ethyl acetate	2	Water	<0.01
n-Hexane	0.2		

Applications

BNX 3052 is particularly useful for the stabilization of adhesives and elastomers derived from butadiene and other dienes, for example polybutadiene and copolymers of polybutadiene and other monomers. The product is also effective in the stabilization of HIPS, ABS, SBS, SBR, NR, EPDM, and hydrocarbon resins.

Advantages

- Highly effective to prevent gel formation in butadiene homo- and co-polymers, especially during processing under anaerobic conditions
- Non-discoloring and low volatility
- Excellent resistance to extraction
- FDA-cleared for use in adhesives, styrenic block copolymers, ABS, polystyrene, and rubber-modified polystyrene

Guidelines for Use

The recommended loading levels in adhesives, elastomers, and plastics range between 0.05 and 0.5%. Best results in terms of processing and thermal oxidative stability are generally obtained by combining BNX 3052 with conventional phenolic antioxidants and secondary antioxidants (phosphites, thiosynergists, and the like). BNX 3052 can also be used in combination with light stabilizers such as 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 3052 is cleared under 21 CFR §178.2010 for use in polystyrene (including rubber modified polystyrene), styrene block copolymers, adhesives and pressure-sensitive adhesives, and acrylonitrile-butadiene-styrene copolymers. Please contact your Mayzo representative for complete details, including restrictions of use.

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