



Mayzo Makes It Possible

BNX[®] 1010

Antioxidant and Thermal Stabilizer

Overview

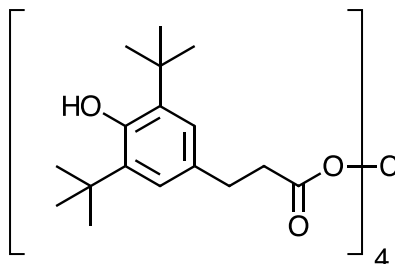
BNX 1010 is a high molecular weight hindered phenolic antioxidant that provides excellent processing and long term thermal stability in a wide variety of organic substrates such as plastics, synthetic fibers, elastomers, adhesives, waxes, oils, and fats.

Chemistry

Chemical Name: Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 1,1'- [2,2-bis[[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]methyl]-1,3-propanediyl] ester

CAS Number: 6683-19-8

Chemical Structure:



Typical Properties

Product Form: Solid
Melting Range: 110 – 125°C
Molecular Weight: 1177.6 g/mol

Solubility (percent by weight, 20°C)

Acetone	47	Hexane	0.3
Benzene	56	Methanol	1
Chloroform	71	Methylene chloride	63
Ethanol	1.5	Toluene	60
Ethyl acetate	46	Water	<0.01

Applications

BNX 1010 is a highly effective antioxidant and process stabilizer in polyolefins, including polyethylene, polypropylene, polybutene, and in olefin copolymers such as EVA. It also provides excellent performance in other polymers such as polyacetals, polyamides, polyesters, polyurethanes, PVC, styrenics, elastomers (such as butyl rubber, SBS, SEBS, EPM, EPDM, and other synthetic rubbers), and latex. It is also recommended for use in adhesives, natural and

synthetic tackifier resins, synthetic diester fluids, oils, fats, waxes, and many other organic substrates.

Advantages

- Provides excellent stability during high temperature processing and long term heat aging
- Compatible with a wide range of organic substrates
- Non-staining and non-discoloring
- Excellent resistance to extraction
- Odorless and tasteless
- Low volatility
- Extensive FDA clearances
- Compatibility with other stabilizers and additives

Guidelines for Use

Recommended loading concentrations range between 0.02% and 1% in polyolefins, between 0.2% and 1% in hot melt adhesives, and between 0.1% and 0.5% in synthetic tackifier resins. Combinations of BNX 1010 with other antioxidants such as phosphites and thioethers often show synergistic performance. BNX 1010 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 1010 has extensive FDA clearances, including in adhesives under 21 CFR §175.105; in all polymers, rosins and rosin derivatives, petroleum alicyclic hydrocarbon resins, terpene resins, and pressure-sensitive adhesives under 21 CFR §178.2010; in lubricants under 21 CFR §178.3570; in surface lubricants used in the manufacture of metallic articles under 21 CFR §178.3910; and in many other applications. Please contact your Mayzo representative for complete details, including restrictions of use.

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