



Mayzo Makes It Possible

BNX[®] 1076

Antioxidant and Thermal Stabilizer

Overview

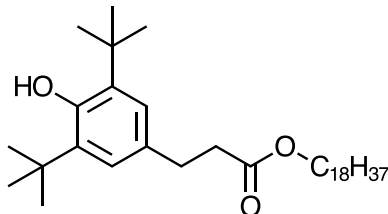
BNX 1076 is a hindered phenolic antioxidant that provides excellent processing and long-term thermal stability in a wide variety of organic substrates such as plastics, synthetic fibers, elastomers, adhesives, waxes, oils, and fats.

Chemistry

Chemical Name: Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, octadecyl ester

CAS Number: 2082-79-3

Chemical Structure:



Typical Properties

Product Form: Solid
Melting Range: 49 – 54°C
Molecular Weight: 530.9 g/mol

Solubility (percent by weight, 20°C)

Acetone	26	Ethyl acetate	42
Benzene	57	n-Hexane	31
Chloroform	57	Methanol	0.6
Cyclohexane	40	Toluene	50
Ethanol	1.5	Water	<0.01

Applications

BNX 1076 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 styrenic polymers (including PS, HIPS, ABS, and block copolymers), polycarbonate, acrylics, polyurethanes, PVC, and polyvinylidene chloride. BNX 1076 is also recommended for use in adhesives, elastomers, urethane and acrylic coatings, 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
- Easily incorporated by melting techniques due to its low melting point
- 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 0.05% and 0.5% in polyolefins, between 0.05 and 0.2% in other polymers, between 0.2% and 1% in hot melt adhesives, and between 0.1% and 0.5% in synthetic tackifier resins. Combinations of BNX 1076 with other antioxidants such as phosphites and thioethers often show synergistic performance. BNX 1076 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 1076 has extensive FDA clearances, including in adhesives under 21 CFR §175.105; in semi-rigid and rigid acrylic polymers and modified acrylics under 21 CFR §177.1010; and in olefin polymers, polystyrene polymers (including rubber modified polystyrene), acrylonitrile-butadiene-styrene copolymers, styrene block copolymers, rigid polyvinyl chloride (including modified with methacrylate-butadiene-styrene copolymers), polycarbonates, ethylene-vinyl acetate copolymers, nitrile rubber-modified acrylonitrile-ethyl acrylate copolymers, vinylidene chloride homopolymers and copolymers, chlorinated isobutylene-isoprene copolymers, and finished rubber articles under 21 CFR §178.2010. Please contact your Mayzo representative for complete details, including restrictions of use.

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