



Mayzo Makes It Possible

BNX[®] 245

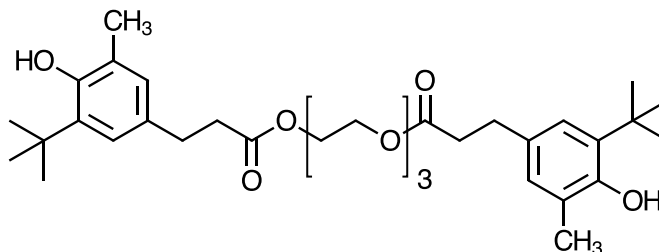
Antioxidant for Plastics and Other Materials

Overview

BNX 245 is a partially-hindered phenolic antioxidant that provides excellent processing and long term thermal stability in a wide range of plastics and other materials.

Chemistry

Chemical Name: Benzenepropanoic acid, 3-(1,1-dimethylethyl)-4-hydroxy-5-methyl-, 1,1'-[1,2-ethanediylbis(oxy-2,1-ethanediyl)] ester
CAS Number: 36443-68-2
Chemical Structure:



Typical Properties

Product Form: Solid
Melting Range: 76 – 79°C
Molecular Weight: 586.8 g/mol

Solubility (percent by weight, 20°C)

Acetone	> 50	Methanol	12
Benzene	18	Methylene chloride	> 40
Chloroform	> 40	Toluene	6
Ethanol	10	Styrene	6
Ethyl acetate	37	Water	< 0.001
Hexane	< 0.1		

Applications

BNX 245 is a highly effective antioxidant and process stabilizer in styrenic polymers (ABS, MBS, HIPS, and SB / SBR lattices), polyacetals, thermoplastic polyesters (especially PBT), polyamides, polyurethanes, PVC, other polymers, adhesives, and sealants. It is also useful as a chain terminator in PVC polymerizations.

Advantages

- Provides excellent processing and long term thermal stability to plastics, especially when used in combination with phosphites and / or thioether antioxidants
- Partially hindered structure provides resistance to discoloration on exposure to combustion gases (“gas fading”)
- Excellent compatibility with styrenic polymers, engineering plastics, polyurethanes, and PVC
- Low volatility

Guidelines for Use

Recommended concentrations in plastics, adhesives, and sealants range from 0.05 to 1%. Combinations of BNX 245 with other antioxidants such as phosphites and thioethers often show synergistic performance. BNX 245 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 245 is cleared under 21 CFR §178.2010 for use as an antioxidant and/or stabilizer in polymers used in the manufacture of articles or components for use in food contact applications, including polystyrene (including rubber-modified polystyrene), ABS, polyacetal (homopolymers and copolymers), rigid PVC, polyvinylidene chloride homo- and copolymers, and adhesives. Please contact your Mayzo representative for complete details, including restrictions of use.

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