



Mayzo Makes It Possible

## Benefos<sup>®</sup> 1626

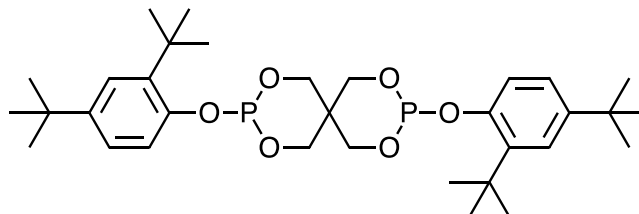
### High Performance Phosphite Antioxidant and Processing Stabilizer

#### Overview

Benefos 1626 is a phosphite antioxidant used as a melt-processing stabilizer in a wide range of materials, including polyolefins and other plastics, adhesives, elastomers, and other organic substrates. It exhibits outstanding performance due to its high phosphorus content. Benefos 1626 often gives best results when combined with a primary antioxidant (for example BNX<sup>®</sup> 1010 or BNX<sup>®</sup> 1076).

#### Chemistry

Chemical Name: 2,4,8,10-Tetraoxa-3,9-diphosphaspiro[5.5]undecane,  
3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]-  
CAS Number: 26741-53-7  
Chemical Structure:



#### Typical Properties

Product Form: Solid  
Melting Range: 170 – 180°C  
Molecular Weight: 604.7 g/mol

#### Solubility (g/100 g solvent, 25°C)

Acetone	8.5	Mineral Oil	10
Heptane	4.5	THF	35.0
Hexane	4.8	Toluene	35.7
Methanol	1.9	Water	<0.01

#### Applications

Benefos 1626 is a highly effective processing stabilizer in polyolefins, including polyethylene, polypropylene, as well as in olefin copolymers such as EVA. It is also recommended for use in other substrates such as PVC, engineering plastics, polyurethanes, styrenic polymers, elastomers, and adhesives.

### Advantages

- Extends performance of primary antioxidants (i.e. BNX 1010 or BNX 1076)
- Protects polymers from chain scission and cross-linking during melt processing
- Prevents discoloration of polymers during melt processing
- Improves long-term thermal stability
- Synergism when used with light stabilizers such as benzophenones and benzotriazoles
- FDA cleared for use in polyolefins, PVC, and polycarbonate

### Guidelines for Use

Recommended loading concentrations range between 0.02% and 0.2% in polyolefins and between 0.05% and 0.25% in other substrates. Combinations of Benefos 1626 with phenolic primary antioxidants (BNX 1010, BNX 1076, and others) often show synergistic performance. Benefos 1626 is also suitable for use in combination with other antioxidants (for example thioethers) and 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. This product is moisture sensitive. Guard against exposure to humidity or moisture to maintain product quality. Opened containers should be used as soon as possible to avoid hydrolysis, especially during humid weather.

### Safety

Please consult the Safety Data Sheet (SDS) prior to handling or using this product.

### FDA Regulations

Benefos 1626 is FDA cleared under 21 CFR §178.2010, including in olefin polymers, polyvinyl chloride and vinyl chloride copolymers, and polycarbonate resins. Please contact your Mayzo representative for complete details, including restrictions of use.

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