



BNX® MD-1024

Antioxidant & Metal Deactivator

Introduction: BNX® MD-1024 is a hindered phenolic antioxidant/metal deactivator used in reducing or preventing the harmful effect of copper or other metals upon various polymers.

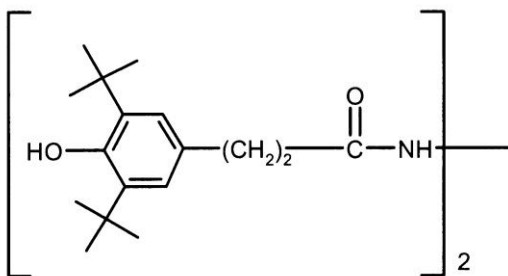
Material Description: Antioxidant/Metal Deactivator

Chemical Name: 1,2-bis(3,5-di-tert-butyl-4-hydroxyhydrocinnamoyl)hydrazine

Empirical Formula: C₃₄H₅₂N₂O₄

CAS#: 32687-78-8

Chemical Structure:



Physical Properties:	Appearance:	White to off-white crystalline powder
	Molecular Weight:	553
	Melting Range:	224-229°C
	Flashpoint (Ignitability):	>180°C DIN 51584
	Percent Volatile:	< 0.5%
	Color of Methanol Solution:	Clear (2g in 100ml)
	Transmittance:	425nm – Minimum 90% (2g in 100ml Methanol):
	Specific Gravity:	~ 1.11 (H ₂ O = 1)
	Vapor Pressure:	~ 8 x 10 ⁽⁻¹³⁾ mmHg at 20°C
	Decomposition Temperature:	>350°C
	pH:	6 for a 1% suspension in water

Solubility:

Solubility at 20°C (g/100ml solvent):

Solvent	Solubility
THF	12.0
Methylene Chloride	0.25
Acetone	>1.0
Toluene	<0.01
Water	<0.01
Paraffin Oil	<0.01

Applications:

BNX® MD-1024 is highly effective in hindering the harmful effect of copper conductors upon polypropylene, high and low density polyethylene and some thermoplastic elastomers used as primary insulation in wire and cable applications. It is also recommended for use in EPDM, peroxide and radiation crosslinked polyethylene, nylon, polyacetal and other organic substrates and for evaluation in polybutene-1, polyurethanes, styrenic copolymers, unsaturated rubber substrates, polyvinyl chloride, polyvinylbutyral and other polymers where reactive metals may affect polymer properties. Other application areas: Hot melt and solution adhesives, polymer powder coatings and other coatings on metals, rubber or plastic gaskets and plastic fabricated parts in contact with catalytic metals, oils and lubricants in high temperature contact with metals and contaminants and acid acceptor in polyacetal and other polymers.

Advantages:

- Ease of compounding
- Compatability in polyolefins and most organic polymers
- Excellent extraction resistance to oil and aqueous media

**Loading
Instructions:**

Packaging:

BNX® MD-1024 is available in a 40kg (88.1) fiber drum, net weight, with inner PE liner.

Storage:

This product may be stored up to two years in a sealed container. Containers should be stored in a cool, dry area. Extended storage at elevated temperatures or exposure to direct heat or sunlight could reduce product life. Keep containers sealed when not in use.

**Toxicity &
Safety:**

This material is not intended for use in products for which prolonged contact with mucous membranes or abraded skin, or implantation within the human body is specially intended, unless the finished product has been tested in accordance with the Food and Drug Administration and/or other applicable safety testing requirements. Because of wide range of such potential uses, Mayzo, Inc. is not able to recommend this material as safe and effective for such uses and assumes no liability for any such uses. Read and understand the Material Safety Data Sheet before using or handling this product.

FDA Regulations:

BNX® MD-1024 may be used in adhesives, ABS copolymers and Polyacetal for food packaging applications complying with Title 21, Code of Federal Regulations, Section 178.2010.

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