

Flamestab® NOR 116

Flame retardant and UV stabilizer for polyolefin flame retardant applications

August 2019 | [Data Sheet](#) | Second Edition

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Characterization

Flamestab® NOR 116 is a monomeric N-alkoxy hindered amine (NOR HAS) which acts as a flame retardant in Polyolefin applications. It shows flame retardancy efficacy in polyolefin fibers, nonwovens and films at concentrations as low as 1%. Flamestab® NOR 116 shows excellent polymer compatibility and high extraction resistance. It also provides superior light and thermal stability to the polymer and shows low interaction with acidic species deriving from pesticide residues or other halogenated products.

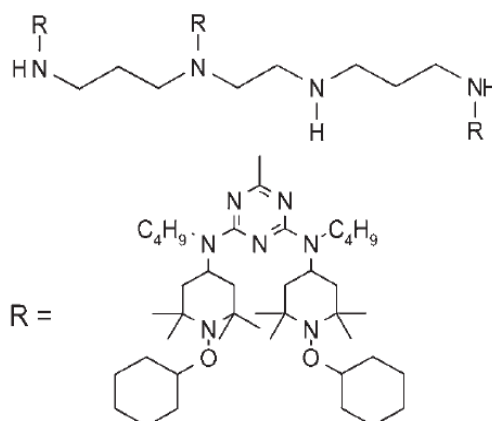
Chemical name

Triazine derivative

CAS number

191680-81-6

Chemical formula



Molecular weight

2261 g/mol

Applications

Flamestab® NOR 116 provides flame retardant efficacy as well as UV and thermal stability to polyolefin fibers and thin films. It can be combined with UV-absorbers or other non-interaction HALS to further improve UV stability of the final article.

Features/benefits

Flamestab® NOR 116 is a low basicity NOR HAS which provides flame retardancy and UV- and long-term thermal stability to polyolefin fiber, films and tapes. It is a non-halogenated flame retardant and does not interact with HALS. Flamestab® NOR 116 is active at low concentrations compared to classical flame retardants. It is melting processable and does not reduce the mechanical properties of the polymer.

Product form

Code: Flamestab® NOR 116 FF
Appearance: Off -white granules

Guidelines for use

PO Fibers & Nonwoven:
Flame Retardancy tested according to e. g. MVSS 302 and DIN 4102-B2
0.5 – 1.5 %
PO Films/Tapes: Flame Retardancy tested according to e. g. DIN 4102 -B2
0.5 – 1.5 %

Optimal concentrations depend on thickness, orientation (e. g. stretching ratio), construction (co-extrusion/nonwoven, woven fabric) and processing conditions of fibers, tapes and films. It must be tested in the final construction. Flamestab® NOR 116 should not be processed at temperatures > 250 °C

Physical Properties

Melting Range	108-123 °C
Specific gravity	1.06 g/ml
Bulk density	0.28 g/ml
Angle of repose	47°
Flashpoint	>100°C
Vapor Pressure(20°C)	1.10 ⁻⁴ Pa

Solubility (20°C)	%W/W
Water	<40 ppb

Volatility	TGA on pure substance; heating rate
	20°C/min in air
Temperature (°C)	Weight loss (%)
260	1.0
285	10.0

Handling & Safety

Detailed information on handling and any precautions to be observed in the use of the product(s) described in this leaflet can be found in our relevant safety data sheet.

Note

The descriptions, designs, data and information contained herein are presented in good faith and are based on BASF's current knowledge and experience. They are provided for guidance only, and do not constitute the agreed contractual quality of the product or a part of BASF's terms and conditions of sale.

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