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Flamestab® NOR 116

Flame retardant and UV stabilizer for polyolefin flame retardant applications

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.

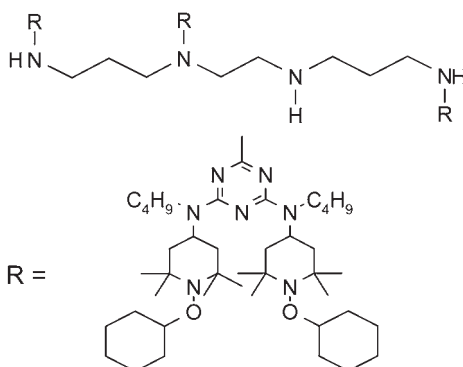
Chemical name

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 melt processable and does not reduce the mechanical properties of the polymer.

Product forms

Flamestab NOR 116 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. DIN4102-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 (pure substance; TGA, heating rate 20 °C/min in air)

Weight Loss (%)	Temperature °C
1.0	260 °C
10.0	285 °C

Handling & Safety

Flamestab NOR 116 exhibits a very low order of oral toxicity and does not present any abnormal problems in its handling or general use.

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 health and safety information sheet.

Note

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