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Tinuvin® 111

Mixture of high molecular weight HALS

Characterization

Tinuvin 111 is a synergistic mixture of a methylated high molecular weight hindered amine light stabilizer (HALS) and oligomeric Tinuvin 622.

It is an excellent UV stabilizer with outstanding extraction resistance, low gasfading and low pigment interaction. Tinuvin 111 is particularly well suited for PP fibers and applications with moderate chemical exposure, as in some agricultural applications.

Chemical name

Methylated high molecular weight HALS: 1,3,5-Triazine-2,4,6-triamine,N,N'"-[1,2-ethane-diyl-bis[[[4,6-bis-[butyl(1,2,2,6,6-pentamethyl-4-piperidinyl) amino]-1,3,5-triazine-2-yl]imino]-3,1-propa-nediyl]]bis[N',N"- dibutyl-N',N"-bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-

Tinuvin 622: Butanedioic acid, dimethylester, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidine ethanol

CAS number

Preparation

Structure

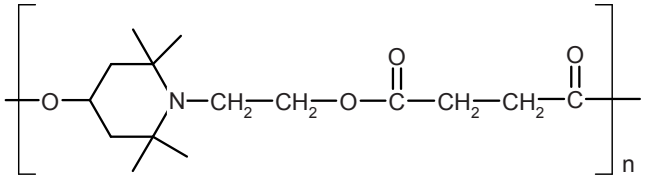
Methylated high molecular weight HALS

Molecular weight

M_w = 2286

Structure

Tinuvin 622



Molecular weight

M_n = 3100 – 4000

Applications

Tinuvin 111 areas of application include polyolefins (PP, PE), olefin copolymers such as EVA as well as blends of polypropylene with elastomers

Features/benefits

The non-interacting nature of Tinuvin 111 provides exceptional ancillary properties such as performance in agricultural, especially mulch applications.

Product forms

Code:	Tinuvin 111 FDL	
Appearance:	white to light yellowish pastilles	

Guidelines for use

Films:	UV stabilization of mulch films	0.5 – 1.5 %
Fibers:	UV stabilization of PP fibers	0.1 – 1.0 %
Thick section:	UV stabilization of PO thick sections	0.05 – 1.0 %

Physical properties

Density (20 °C):	1.05 g/cm^3
Melting range:	115 – 150 °C
Flashpoint (ASTM D 92 – 78):	> 275 °C

Handling & Safety

In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Avoid continuous or repetitive breathing of dust. Use only with adequate ventilation. Protect skin. Prevent contamination of the environment. Avoid dust formation and ignition sources.

For more detailed information please refer to the material safety data sheet.

Note

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