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Irgastab® FS 301

Phenol free processing stabilizer system

Characterization

Irgastab FS 301 is a system composed of a phosphite processing stabilizer Irgafos® 168 and a high molecular weight hydroxylamine Irgastab FS 042. It is designed specifically as a powerful non-phenolic processing stabilizer system with excellent color control, compatibility, low volatility and high resistance to extraction
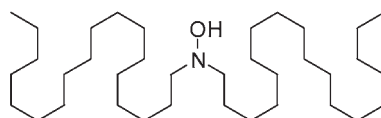
Chemical name

Irgastab FS 042	Oxidized bis(hydrogenated tallow alkyl) amines
Irgafos 168	Tris(2,4-di-tert.-butylphenyl)phosphite

CAS number

Preparation

Chemical formula
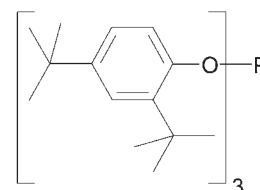
Irgastab FS 042   Irgafos 168

Molecular weight

Irgastab FS 042	538 g/mol
Irgafos 168	647 g/mol

Applications

Irgastab FS 301 is used as a processing stabilizer in polyolefin applications where low color and low gas fade discoloration are required. Irgastab FS 301 is particularly suited for PP fiber applications such as carpets, hygienic non-wovens and apparel as well as in polypropylene moldings (such as automotive TPO's and outdoor construction applications) where high UV stability is required. When post-processing thermal and /or UV stability is required, Irgastab FS 301 should be used in combination with a hindered amine stabilizer.

Features/benefits

Irgastab FS 301 provides outstanding processing stability to polyolefins while virtually eliminating gas fade discoloration that may occur when phenolic systems are used. When used in combination with a Uvinul®, Chimassorb® or Tinuvin® hindered amine stabilizer, the system also provides both long-term thermal stability as well as a higher level of light stability in comparison to phenolic processing stabilizer systems. Furthermore Irgastab FS systems also enhance the ability of hindered amines to act as light stabilizers.

Product forms	Irgastab FS 301 FF free-flowing granules

Guidelines for use

Irgastab FS systems are effective as processing stabilizers when used at 0.05 % – 0.15 % depending upon the polymer substrate, processing conditions and application. They are generally effective at 50 % to 60 % of the concentration of conventional phenolic-phosphite process stabilizers.

Health & Safety

Irgastab FS 301 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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September 2010