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Irganox® 1425

Multifunctional phenolic primary antioxidant for processing and long-term thermal stabilization

Characterization

Irganox 1425 is a high molecular weight phenolic antioxidant containing phosphorus. It is a highly efficient, non discoloring stabilizer for organic substrates such as plastics, synthetic fibers, elastomers, adhesives, waxes, oils and tars. It protects these substrates against thermo-oxidative degradation. Irganox 1425 is odorless, stable to light and has excellent color retention. It has good compatibility with most substrates and high resistance to extraction.

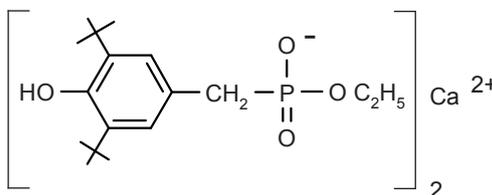
Chemical name

(1,1-Di-tert.-butyl-4-hydroxyphenyl)methyl)ethylphosphonate

CAS number

65140-91-2

Chemical formula



Irganox 1425

Molecular weight

695 g/mol

Applications

Irganox 1425 imparts processing and good long-term thermal stability to polyolefins. Irganox 1425 is also an effective stabilizer for polyesters, crosslinked elastomers (e.g. NBR), specialty adhesives, natural and synthetic tackifier resins. Irganox 1425 is used as esterification catalyst for the preparation of rosin esters.

Features/benefits

Irganox 1425 is especially recommended for applications requiring improved extraction resistance, low volatility, excellent color and color stability and superior gas-fading resistance.

Product forms

Irganox 1425 white, free flowing powder

Guidelines for use

The concentrations of Irganox 1425 to be used strongly depend on end-use requirements. The recommended concentration is 0.05–0.25% Irganox 1425. Irganox 1425 can be used alone or in combinations with other Irganox, Irgafos, Chimassorb, Uvinul or Tinuvin stabilizers and costabilizers.

Physical properties

Melting range	> 260 °C
Flashpoint	> 150 °C
Specific gravity (20 °C)	1.21 g/ml
Vapor pressure (20 °C)	< 1E-2 Pa

Solubility (20 °C)	g/100 g solution
Acetone	0.02
Chloroform	0.01
Dichloromethane	0.01
Ethanol	< 0.1
Ethyl acetate	0.03
n-Hexane	0.02
Methanol	8
Toluene	~ 0.5
Water	0.24

Health & 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 health and safety information sheet.

Note

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