Technical Information

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Plastic Additives

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Irganox[®] 259

Phenolic Primary Antioxidant for Processing and Long-Term Thermal Stabilization

Hexamethylene bis(3-(3,5-di-tert.-butyl-4-hydroxyphenyl)propionate)

Irganox 259, a sterically hindered phenolic antioxidant, is an efficient, nondiscoloring stabilizer for organic substrates such as plastics, synthetic fibers, and elastomers.

Chemical name

Characterization

CAS number

Chemical formula

Molecular weight

Applications

Features/benefits

Product forms

Guidelines for use

HC ö

630 g/mol

35074-77-2

Irganox 259 is especially suited for the stabilization of polyacetals. Its use is also recommended in other polymers such as polyesters, polyolefins, polyols, polyurethanes, elastomers, adhesives, and other organic substrates.

Irganox 259 provides excellent processing and long-term thermal stability as well as excellent initial resin color. It has good compatibility with most substrates, low volatility, and is resistant to extraction.

Irganox 259

Irganox 259 is recommended for use in polyacetal homopolymers and copolymers at concentrations of 0.05% - 0.5% depending on the polymer type, method of incorporation, application, and degree of stability required. It is easily dispersed into the polymer by conventional extrusion compounding techniques.

white to off-white powder

Suggested use concentrations for Irganox 259 in polyesters, polyolefins, polyols, polyurethanes, elastomers, and adhesives range from 0.05% - 1.0%depending on the substrate and the stability required.

The product can be used alone or in combination with other additives such as light stabilizers (e.g. ultraviolet absorbers, hindered amines), costabilizers (e.g. phosphites, thioethers, hydroxylamines), and other functional stabilizers. Performance data for Irganox 259 alone and in combination with other additives are available on request in a variety of substrates.

Physical Properties	Melting range Flashpoint	103–108 °C 280 °C
	Vapor pressure (20 °C)	1.3 E-8 Pa
	Density (20 °C)	1.08 g/ml
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	Bulk density Powder	550–650 g/l
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	Solubility (20 °C)	g/100 g solution
	Acetone Benzene	36 39
	Chloroform	47
	Ethyl acetate	25
	n-Hexane	1.5
	Methanol	1.7
	Paraffin oil	< 0.1
	Water	< 0.01
	Volatility (TGA, air at 20 K/min)	
	Temperature at 1 % weight loss	270 °C
	Temperature at 10% weight loss	335 °C
Health & Safety	Irganox 259 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	
	health and safety information 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 no	
	tual quality of the product or a part of BASF's to	
	Because many factors may affect processing o	
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