

Irganox® 245

Phenolic Primary Antioxidant for Processing and Long-Term Thermal Stabilization

August 2020 | [Data Sheet](#) | Second Edition

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Characterization

Irganox® 245 is a sterically hindered phenolic antioxidant particularly suitable for organic substrates. It protects the substrates against thermo-oxidative degradation during manufacturing, processing and end-use. Irganox® 245 is odorless, of low volatility, has a good color stability and exhibits high extraction resistance.

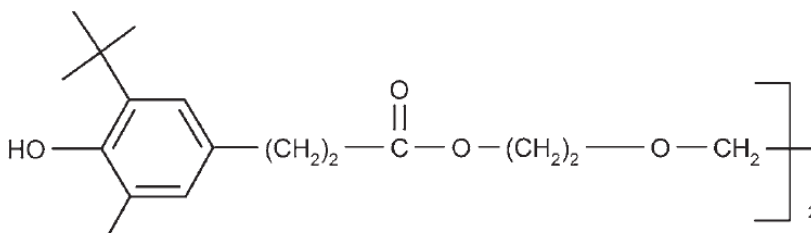
Chemical name

Ethylene bis(oxyethylene) bis-(3-(5-tert-butyl-4-hydroxy-m-tolyl) propionate)

CAS number

36443-68-2

Chemical formula



Molecular weight

586.8 g/mol

Applications

Irganox® 245 is effective in styrene polymers, particularly impact modified polystyrenes, ABS, MBS, SB and SBR-lattices as well as in POM homo- and copolymers. It is also very useful for the stabilization of polyurethanes, polyamides, thermoplastic polyesters, PVC and other polymers. In addition to imparting thermostability to the finished polymer Irganox® 245 is effective as chain stopper during PVC polymerization.

Features/benefits

Irganox® 245 can be used in combination with other additives such as costabilizers (e.g. thioesters, phosphites, phosphonites, lactones), light stabilizers, and other functional stabilizers. The effectiveness of the blends of Irganox® 245 with IRGAFOS 168 (Irganox® B-blends) is noteworthy.

Product forms

Irganox® 245
Irganox® 245 FF

white, free-flowing powder
white, free-flowing granules

Guidelines for use Already 0.05 – 0.1 % of Irganox® 245 provides long-term thermal stability to the polymer. Concentrations up to 1.0 % can be used depending on the substrate and the requirements of the end application.

Physical Properties	Melting range	76 – 79 °C
	Flashpoint	> 150 °C
	Vapor pressure (20 °C)	4 E-8 Pa
	Density (20 °C)	1.14 g/ml
	Solubility (20° C)	g/100 g solution
	Acetone	> 50
	Benzene	18
	Chloroform	> 40
	Ethyl acetate	37
	n-Hexane	< 0.1
Ethanol	10	
Methanol	12	
Methylene Chloride	> 40	
Toluene	6	
Styrene	6	
Polyetherol	~ 3	
Water	< 0.01	
	Volatility (TGA, air at 20 K/min)	
	Temperature at 1 % weight loss	280°C
	Temperature at 10 % weight loss	330°C

Handling & 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 safety data 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 not constitute the agreed contractual quality of the product or a part of BASF's terms and conditions of sale.

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August 2020