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Irganox® 565

Phenolic Primary Antioxidant for Processing and Long-Term Thermal Stabilization

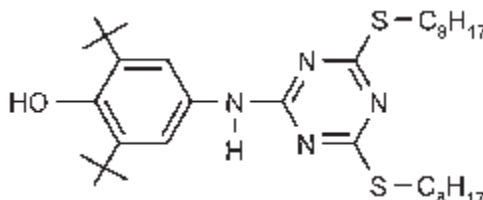|	
Characterization	Irganox 565 is a high molecular weight, non-staining, multifunctional phenolic antioxidant primarily used as a post-polymerization process stabilizer for unsaturated elastomers.
Chemical name	2,6-Di-tert-butyl-4-(4,6-bis(octylthio)-1,3,5-triazin-2-ylamino)phenol
CAS number	991-84-4
Chemical formula	

Molecular weight	589 g/mol
Applications	Irganox 565 is a highly effective antioxidant for a variety of elastomers including polybutadiene (BR), polyisoprene (IR), emulsion styrene butadiene (SBR), nitrile rubber (NBR), carboxylated SBR Latex (XSBR), and styrenic block copolymers such as SBS and SIS. Irganox 565 is also used in adhesives (hot melt, solvent-based), natural and synthetic tackifier resins, EPDM, ABS, high impact polystyrene, polyamides, and polyolefins.
Features/benefits	Irganox 565 is highly effective at low concentrations, matching the performance of other stabilizers at higher levels. It is non-staining and due to its low volatility, Irganox 565 is not lost during polymer processing, drying or storage. Irganox 565 can be used in a wide variety of applications. In unsaturated elastomers, Irganox 565 prevents gel formation, maintains excellent polymer color, and prevents changes to molecular weight (e. g. Mooney viscosity).
Product forms	Irganox 565 white to yellowish powder Irganox 565 DD white to yellowish pellets

Guidelines for use

Use levels of Irganox 565 vary by polymer and range from 0.05 % to 0.5 %. Extensive performance data are available on request in many of the substrates mentioned above.

The relatively low melting point allows easy dispersion in elastomeric substrates by commonly used melt com-pounding techniques or it can be incorporated into process streams by dissolving in suitable organic solvents or aromatic extender oils.

Physical Properties

Melting range	91–96 °C
Flashpoint	285 °C
Vapor pressure (20 °C)	1.3 E-8 Pa
Specific gravity (20 °C)	1.09 g/ml

Solubility (20 °C)	**g/100 g solution**
Acetone	20
Benzene	43
Chloroforme	39
Ethyl acetate	46
n-Hexane	6
Methanole	1.4
Water	< 0.01

Health & Safety

Irganox 565 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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