

Irganox® 3114

Phenolic primary antioxidant for processing and long-term thermal stabilization

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

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Characterization

Irganox® 3114 – a sterically hindered phenolic antioxidant – is a highly effective, non-discoloring stabilizer for organic substrates such as polymers, synthetic fibers, elastomers, adhesives, waxes, oils and fats. It protects these substrates against thermo-oxidative degradation and contributes to their light stability.

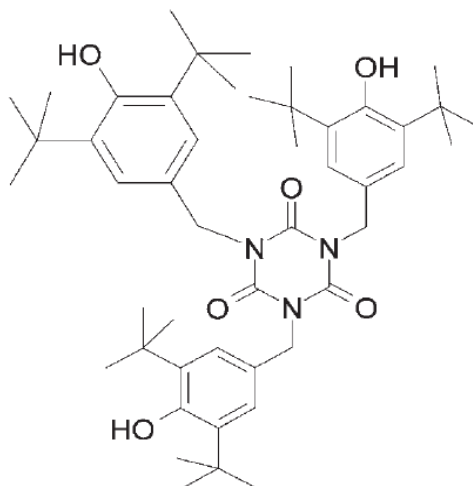
Chemical name

1,3,5-Tris(3,5-di-tert.-butyl-4-hydroxybenzyl)-1,3,5-triazine-2,4,6(1H,3H,5H) trione

CAS number

27676-62-6

Structure



Molecular weight

784 g/mol

Applications

Irganox® 3114 can be applied in polyolefins, namely polyethylene, polypropylene, polybutene as well as in other polymers such as styrene homo- and copolymers. It may also be used in linear polyesters, PVC, polyamides and polyurethanes, elastomers such as SBS, EPR, EPDM and other synthetic rubbers, adhesives, natural and synthetic tackifier resins and other organic substrates. Irganox® 3114 has good compatibility with most substrates, high resistance to extraction, and low volatility. It is odorless and stable to light.

Features/benefits The product can be used in combination with other additives such as costabilizers (e.g. thioethers, phosphites, phosphonites), light stabilizers and other functional stabilizers. The effectiveness of the blends of Irganox® 3114 with Irgafos® 168 (Irganox B-blends) is particularly noteworthy.

Product forms Irganox® 3114 white, free-flowing powder
Irganox® 3114 FF white, free-flowing granules

Guidelines for use In polyolefins, the concentration levels for Irganox® 3114 range typically between 0.05 % and 0.3 % depending on substrate, processing conditions and long-term thermal stability requirements. The optimum level is application specific. Extensive performance data of Irganox® 3114 in various organic polymers and applications are available upon request.

Physical Properties

Melting range	218 – 223 °C
Flashpoint	289 °C
Specific gravity (20 °C)	1.03 g/ml
Bulk density	
Powder	530 – 630 g/l
FF	480 – 570 g/l
Solubility (25° C)	g/100 g solution
Acetone	29
Chloroform	21
Ethanol	1.5
n-Hexane	0.6
Methanol	0.5
water	0.01

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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