We create chemistry

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Irganox® 1520 L

Multifunctional phenolic antioxidant for processing and long-term thermal stabilization of elastomers, plastics and related products

Characterization

Irganox 1520 L is a multifunctional liquid phenolic antioxidant for organic substrates such as elastomers, plastics, adhesives, sealants, oils and lubricants. It effectively protects the substrate against thermooxidative degradation during processing and long-term heat aging. Irganox 1520 L is non-staining, non-discoloring, low in volatility, and stable to light and heat.

Irganox 1520 L is specially recommended for emulsion and solution polymerized elastomers, such as BR, SBR, NBR, SBS and others.

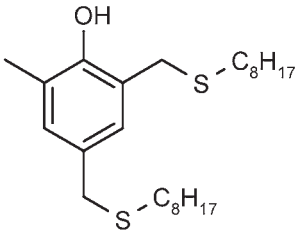
Chemical name

4,6-Bis(octylthiomethyl)-o-cresol

CAS number

110553-27-0

Chemical formula



Molecular weight

424.7 g/mol

Applications

Irganox 1520 L is an effective thermooxidative stabilizer in a wide range of solution polymerized, emulsion polymerized and thermoplastic elastomers including: BR, SBR, NBR, IR, SBS, and SIS as well as natural rubber. The antioxidant is effective both as a raw elastomer and compound stabilizer. It is also effective in various adhesive and sealant applications and latex applications.

Irganox 1520 L is not recommended for odor sensitive hot melt adhesives or their raw materials.

Features/benefits

Irganox 1520 L is unique in its ability to provide both processing and long-term heat aging stability used alone, at low levels and without costabilizers. Where necessary Irganox 1520 L can be used with other additives such as secondary antioxidants, benzofuranone, light stabilizers and other functional stabilizers.

The effectiveness of these products in a wide range of elastomers coupled with extensive food contact approvals makes Irganox 1520 L an excellent choice where consolidation of antioxidant systems is desirable. In addition, the liquid, low viscosity nature of Irganox 1520 L makes bulk delivery and storage very convenient.

Product forms

Irganox 1520 L	low viscous, pale yellow liquid

Guidelines for use

The normal usage levels for Irganox 1520 L range between 0.05 % and 0.3 %. For special applications and, de-pending on substrate, manufacturing process and performance requirements, the optimal concentration may be as high as 1.0 % or even more.

Extensive performance data for Irganox 1520 L in various polymers and applications are available on request.

Physical properties

Melting range	~ 12 – 15 °C
Flash point	> 200 °C
Vapor pressure (25 °C)	2 E-5 Pa
Specific gravity (20 °C)	0.98 g/ml
Dynamic viscosity (20 °C)	85 – 90 mPa.s

Solubility (20 °C)	**g/100 g solution**
Acetone	> 50
Chloroforme	> 50
Ethanole	> 50
Ethyl acetate	> 50
n-Hexane	> 50
Methanol	> 50
Methylene chloride	> 50
Toluene	> 50
Water	< 0.01

Health & Safety

Irganox 1520 L 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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