### **Technical Information**

TI/EVK 1036 e September 2010

Page 1 of 2

#### **Plastic Additives**



® = registered Trademark of BASF SE

# Irganox® B 225

# Synergistic processing and long-term thermal stabilizer system

Characterization

**Chemical name** 

**CAS** number

**Chemical formula** 

Irganox B 225 – a processing and long-term thermal stabilizer system – is a synergistic blend of Irgafos  $^{\tiny (\!R\!)}$  168 and Irganox 1010.

Irgafos 168; Irganox 1010

Preparation

Irgafos 168

Molecular weight

Irgafos 168 Irganox 1010 646.9 g/mol 1178 g/mol

**Applications** 

Irganox B 225 is used in polyolefins and olefin-copolymers such as polyethylene, polypropylene, polybutene and ethylene-vinylacetate copolymers. The blend can also be used in other polymers such as engineering plastics, styrene homo-and copolymers, polyurethanes, elastomers, adhesives, and other organic substrates. Irganox B 225 can be used in combination with light stabilizers of the Uvinul<sup>®</sup>, Tinuvin<sup>®</sup> and Chimassorb<sup>®</sup> range.

#### Features/benefits

Irganox B 225 is a convenient blend addressing a range of stabilization needs. The relatively high phenolic antioxidant content of Irganox B 225 addresses applications requiring more long-term thermal stability. In the recommended applications Irganox B 225 provides significant benefits, such as

- long-term thermal stability
- · maintenance of original melt flow
- low color formation

Irgafos 168 – an organophosphite of low volatility and particularly resistance to hydrolysis – protects during processing organic polymers which are prone to oxidation. Irganox 1010 – a hindered phenolic antioxidant - contributes synergistically to the stabilization of the polymer during processing and provides long-term thermal stability by preventing thermo-oxidative degradation during service life. Performance can be improved in synergistic combinations with other BASF additives (e.g. thioethers). Blends of Irganox 1010 and Irgafos 168 with Hydroxylamine FS042 are particularly effective.

**Product forms** 

Irganox B 225 white, free-flowing powder Irganox B 225 FF white, free-flowing granules

**Guidelines for use** 

In polyolefins, the concentration levels for Irganox B 225 range typically between 0.1 % and 0.25 % depending on substrate and processing conditions. The optimum level is application specific. Extensive performance data of Irganox B 225 in various organic polymers and applications are available upon request.

**Physical properties** 

Bulk density

Powder 530-630 g/l FF 480-570 g/l

**Health & Safety** 

Irganox B 225 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.

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. Because many factors may affect processing or application/use of the product, BASF recommends that the reader carry out its own investigations and tests to determine the suitability of a product for its particular purpose prior to use. It is the responsibility of the recipient of product to ensure that any proprietary rights and existing laws and legislation are observed. No warranties of any kind, either expressed or implied, including, but not limited to, warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth herein, or that the products, descriptions, designs, data or information may be used without infringing the intellectual property rights of others. Any descriptions, designs, data and information given in this publication may change without prior information. The descriptions, designs, data and information furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability for the descriptions, designs, data or information given or results obtained, all such being given and accepted at

September 2010

the reader's risk.

BASF Schweiz AG Plastic Additives 4057 Basel, Switzerland www.performancechemicals.basf.com

Note