



Hampford Research INC

Handcrafted Solutions For A High-Tech World

2-Mercaptobenzothiazole

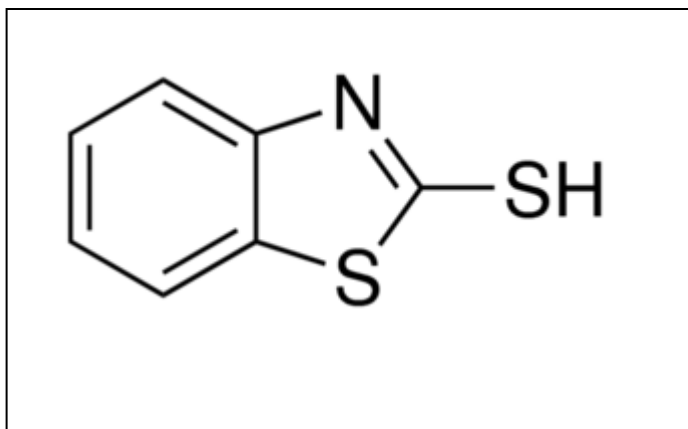
FP 5375

General

2-MBT is a low cost, highly soluble, sulfur based co-initiator designed for use with free radical based systems.. This unique product acts as an efficient electron donor ,that when paired with HABI's, produce an active thioyl radical that will initiate the polymerization of acrylate formulations.

Because of its low color formation and depth of cure properties, 2-MBT is ideal for most clear coating applications.

Chemical structure



Product information

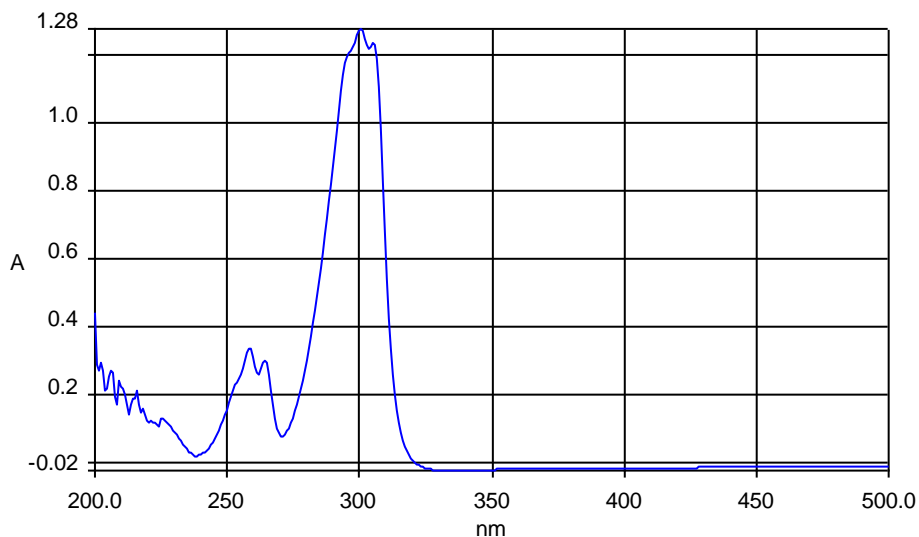
CHEMICAL NAME:	2-Mercaptobenzothiazole
TRADE NAMES:	2-Benzothiazolethiol, MBT
MOLECULAR FORMULA:	C ₇ H ₅ NS ₂
CAS NO.	149-30-4
REGISTRATIONS:	AICS, DSL, EINECS, ENCS, PICCS, TSCA
SHELF LIFE:	1 year when stored indoors at 25 (+/- 5) deg C

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Typical properties

APPEARANCE:	Off White to Tan Crystalline Powder
IR:	To match standard
PURITY:	98.0% (HPLC)
MELTING POINT:	188.0-194.0 degrees C (DSC)

Absorption Spectrum



Usage recommendations:

All HABI photoinitiators operate via a Norrish II type reaction mechanism, meaning they must be combined with a suitable co-initiator in order to attain complete photo-polymerization. The two most commonly used products are nitrogen based (i.e. n-Phenyl Glycine) or thiols such as 2-MBO or 2 MBT. NPG is the more active of the two materials, and should be used for applications requiring fast cure speed or a high degree of polymerization. Thiols offer improved resistance to oxygen inhibition and impart very little color, making it ideal for clear coating applications. One or both of these materials can be used in most formulations, with a typical starting point being 2 parts photoinitiator to one part co-initiator.

2-MBT is commonly used as a co-initiator due to its low use cost and ease of solubility.

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Safety and Handling

2-MBT should be handled in accordance with good industrial practice. Detailed information is provided in the SDS.

2-MBT is sensitive to visible light and any exposure to sunlight should be avoided.

NOTE: Intellectual property issues cover the use of this material in select applications.
For additional information visit our website www.hampfordresearch.com.

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