Hampford Research INC

Handcrafted Solutions For A High-Tech World

2-Mercaptobenzoxazole

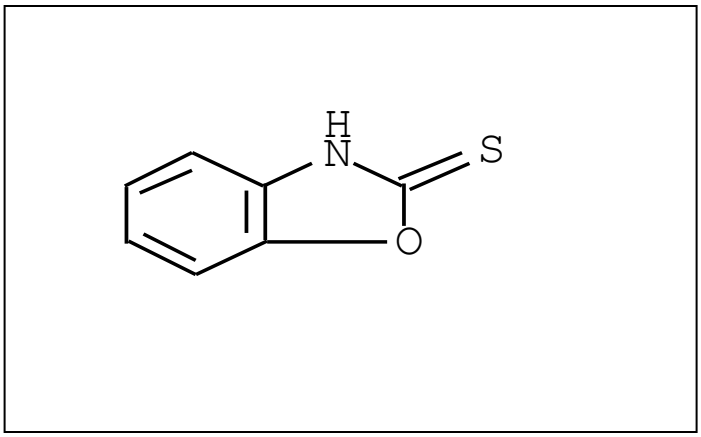
FP 5260

General

2-MBO is a low odor, 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-MBO is ideal for most clear coating applications.

Chemical structure



Product information

CHEMICAL NAME:	2(3H)-Benzoxazolethione
TRADE NAMES:	2-Mercaptobenzoxazole, 2-MBO
MOLECULAR FORMULA:	C_7H_5NOS
CAS NO.	2382-96-9
HRI CODE:	FP5260
REGISTRATIONS:	AICS, DSL, EINECS, ENCS, PICCS, TSCA
SHELF LIFE:	1 year when stored indoors at 25 (+/- 5) deg C

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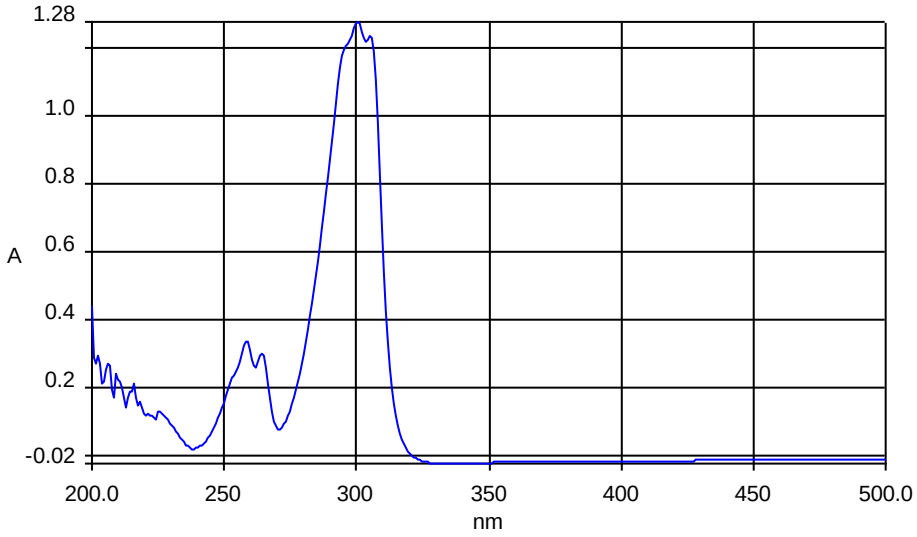
Typical properties

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 attain complete photo-polymerization. The two most commonly used products are n-Phenyl Glycine (FP5360) or 2-MBO (FP5260). 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. 2-MBO offers improved resistance to oxygen inhibition and imparts 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-MBO can be difficult to dissolve directly into certain monomer solutions. Dissolution can often be facilitated by predissolving 2-MBO into acetone (1:1)

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and adding the resulting solution to the monomer blend. The remaining acetone can be easily removed through the application of slight vacuum.

Safety and Handling

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

2-MBO 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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