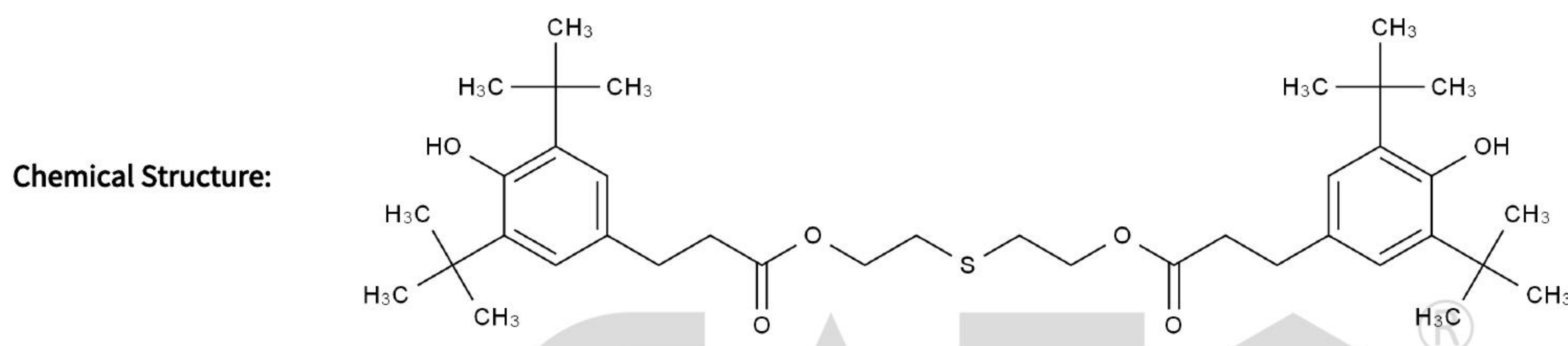


Certificate of Analysis

Reference Material & Standard

Product Name:	2,2'-Thiodiethylene Bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate]	Catalogue Number:	CCHM700534
Synonyms:	N/A	Lot Number:	0530-RE-0020
CAS Number:	41484-35-9	Expiry Date:	Jun 08, 2027
Molecular Formula:	C38H58O6S	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	642.93		



Test Items	Method	Results
Appearance	Visual inspection	White Powder
Identification	LCMS&IR&CNMR&HNMR	Confirmed
Purity	HPLC	99.643%
Loss On Drying	TGA	0.0816%
Assay		99.6%
Uncertainty		±2.0%

Comment:

1. The calculation of the 100% method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Loss On Drying}) * \text{Purity HPLC (\%)} / 100\%$$

Loss On Drying is considered as absolute effect, HPLC purity is considered as relative effect.

2. The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

Prepared by:

Yuki

Reviewed by:

Lisa

Aproved by General Manager:

David

Date: Jun 13, 2023

Date: Jun 13, 2023

Date: Jun 13, 2023

