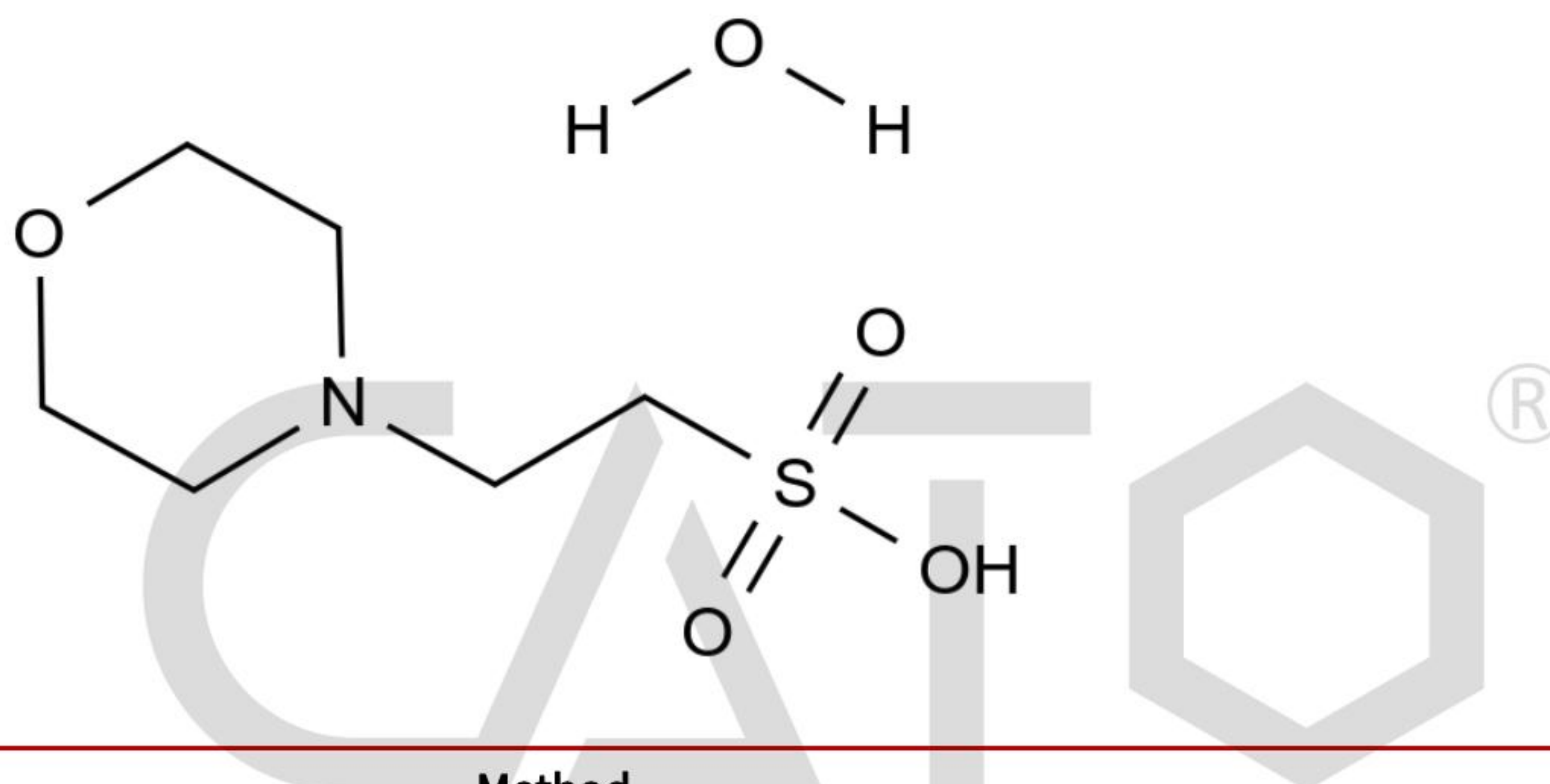


Certificate of Analysis

Reference Material & Standard

Product Name:	2-Morpholinoethanesulfonic Acid Monohydrate	Catalogue Number:	CCHM702741
Synonyms:	N/A	Lot Number:	0725-RD-0056
CAS Number:	145224-94-8	Expiry Date:	Aug 21, 2029
Molecular Formula:	C6H13NO4S H2O	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	195.24 18.02		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&HNMR	Confirmed
Purity	ELSD	100.000%
Loss On Drying	TGA	8.6347%
Loss On Drying(Free Water)		0.1868%
Assay		99.8%
Uncertainty		±0.2%

Comment:

- The content of crystal water is 8.4479%.
- The calculation of the 100% method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Loss On Drying(Free Water)}) * \text{Purity ELSD (\%)} / 100\%$$
 Loss On Drying(Free Water) is considered as absolute effect, ELSD purity is considered as relative effect.
- 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:

Nice

Reviewed by:

Lisa

Approved by General Manager:

David

Date: Aug 22, 2025

Date: Aug 22, 2025

Date: Aug 22, 2025

