

Certificate of Analysis

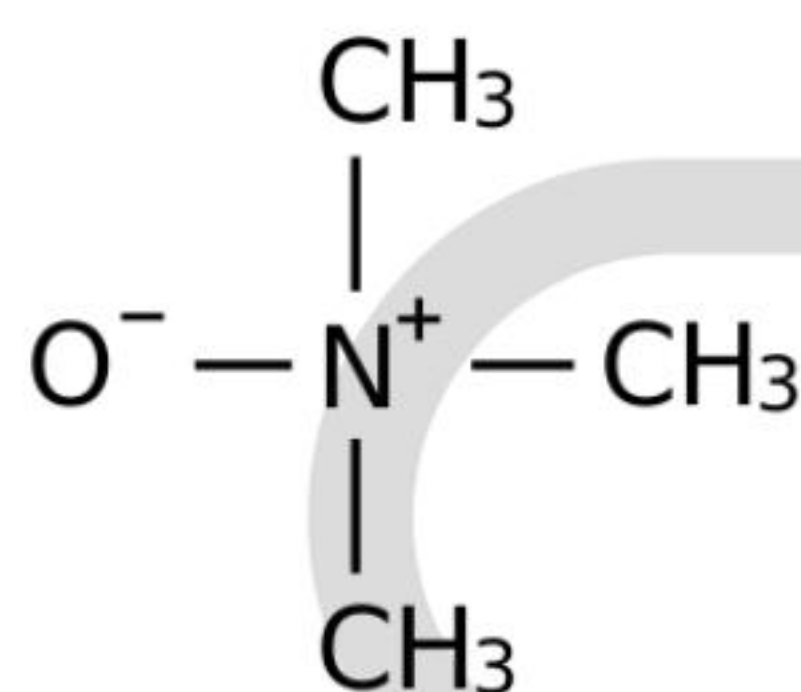
Reference Material & Standard

Product Name:	Trimethylamine N-Oxide Dihydrate	Catalogue Number:	CCEM501690
Synonyms:	N/A	Lot Number:	0818-RG-0081
CAS Number:	62637-93-8	Expiry Date:	Aug 17, 2029
Molecular Formula:	C ₃ H ₉ NO · 2H ₂ O	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	75.11 · 2 · 18.02		

H₂O

H₂O

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Colourless Crystalline Solid
Identification	LCMS&HNMR	Confirmed
Purity	ELSD	99.840%
Water Content	Karl Fischer	40.1543%
Water Content(Free Water)		7.7296%
Assay		92.1%
Uncertainty		±0.8%

Comment:

- The content of crystal water is 32.4247%.
- The calculation of the 100% method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Water Content(Free Water)}) \times \text{Purity ELSD (\%)} / 100\%$$
 Water Content(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 18, 2025

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