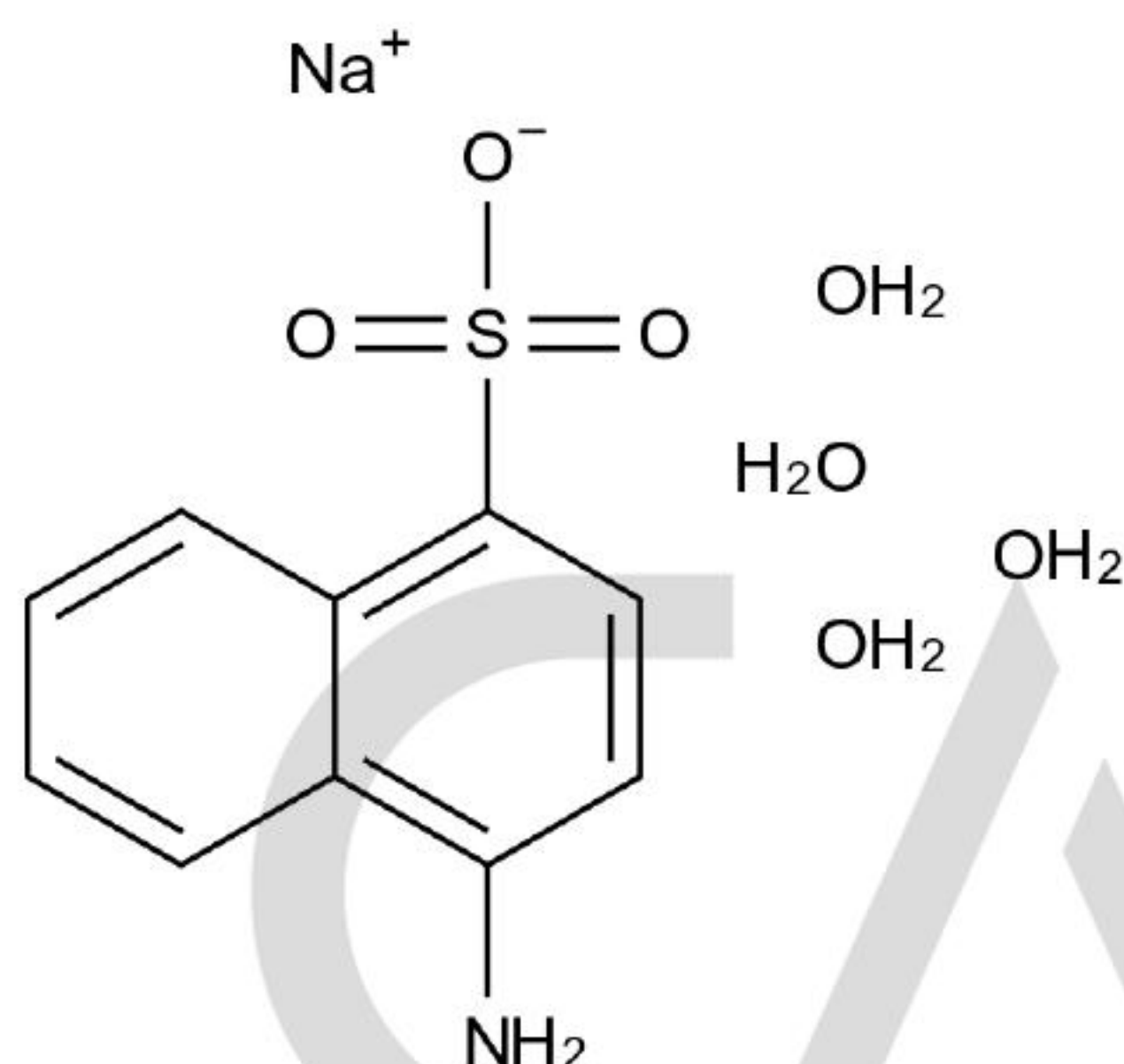


Certificate of Analysis

Reference Material & Standard

Product Name:	Sodium 4-Amino-1-naphthalenesulfonate Tetrahydrate	Catalogue Number:	CCHM700681
Synonyms:	N/A	Lot Number:	1204-RB-0015
CAS Number:	130-13-2	Expiry Date:	Jan 11, 2028
Molecular Formula:	C ₁₀ H ₈ NO ₃ S Na 4*H ₂ O	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	222.24 22.99 4*18.02	Warning:	

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Pale Purple Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	99.303%
Water Content	Karl Fischer	23.1408%
Water Content(Free Water)		0.4248%
Assay		98.9%
Uncertainty		±2.0%

Comment:

- The content of crystal water is 22.7160%.
- The calculation of the 100% method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Water Content(Free Water)}) * \text{Purity HPLC (\%)} / 100\%$$
 Water Content(Free Water) is considered as absolute effect, HPLC 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

Aproved by General Manager:

David

Date: Jan 12, 2024

Date: Jan 15, 2024

Date: Jan 15, 2024

