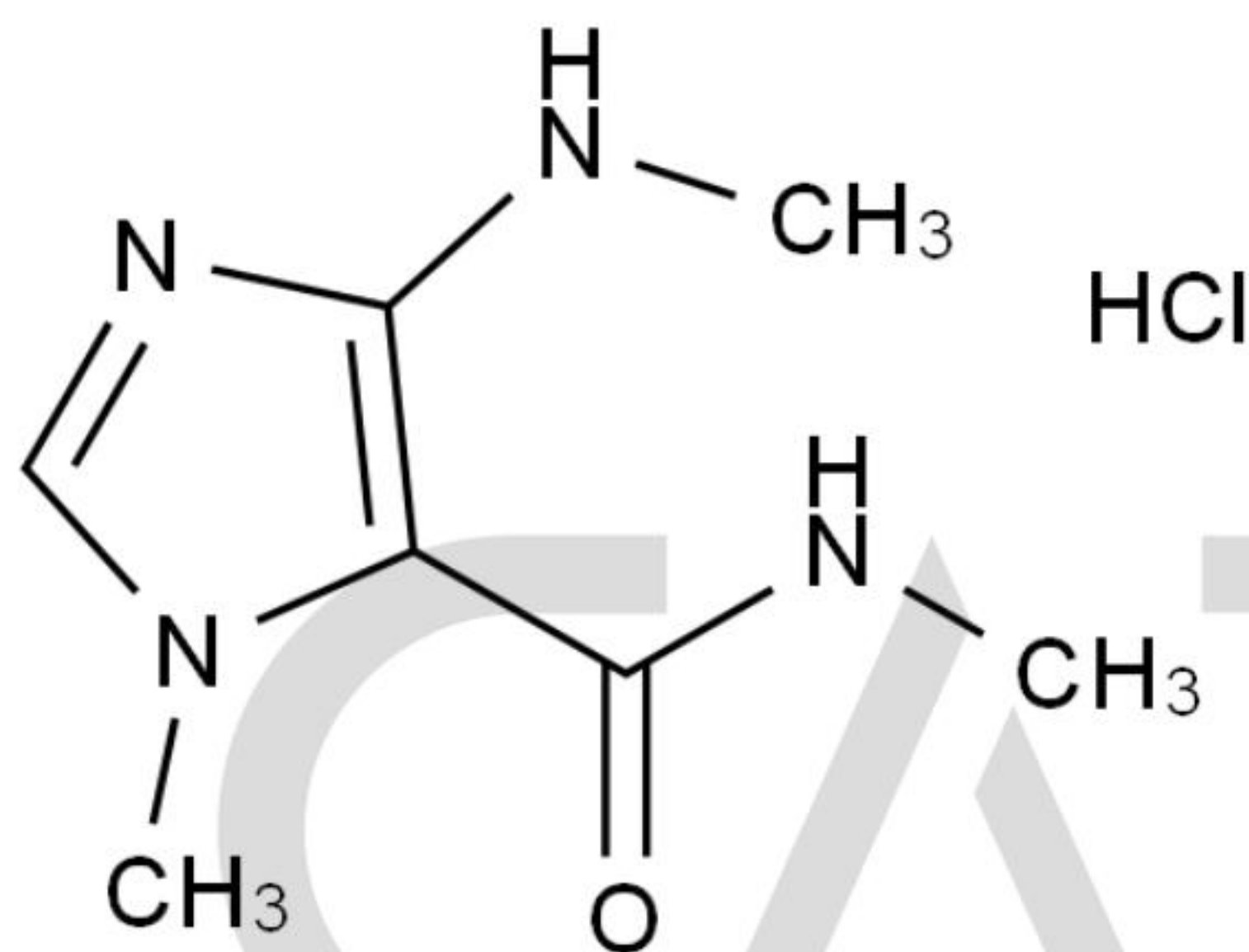


Certificate of Analysis

Reference Material & Standard

Product Name:	Caffeine EP Impurity E HCl	Catalogue Number:	C4X-13303
Synonyms:	N/A	Lot Number:	0115-RF-0018
CAS Number:	107605-95-8	Expiry Date:	Aug 08, 2025
Molecular Formula:	C ₇ H ₁₂ N ₄ O HCl	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	168.20 36.46	Warning:	

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Off-White Solid
Identification	LCMS&IR&HNMR	Confirmed
Purity	HPLC	100.0000%
Water Content	Karl Fischer	0.10%
Residual Solvents	NMR	0.1% methanol and 0.1% acetonitrile
Assay		99.7%

Comment:

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

Assay (%) = (100% - Water Content - Residual Solvents) * Purity HPLC (%) / 100%

Water Content and Residual Solvents are considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Lily

Reviewed by:

Lisa

Aproved by General Manager:

David

Date: Jan 16, 2024

Date: Jan 16, 2024

Date: Jan 16, 2024

