

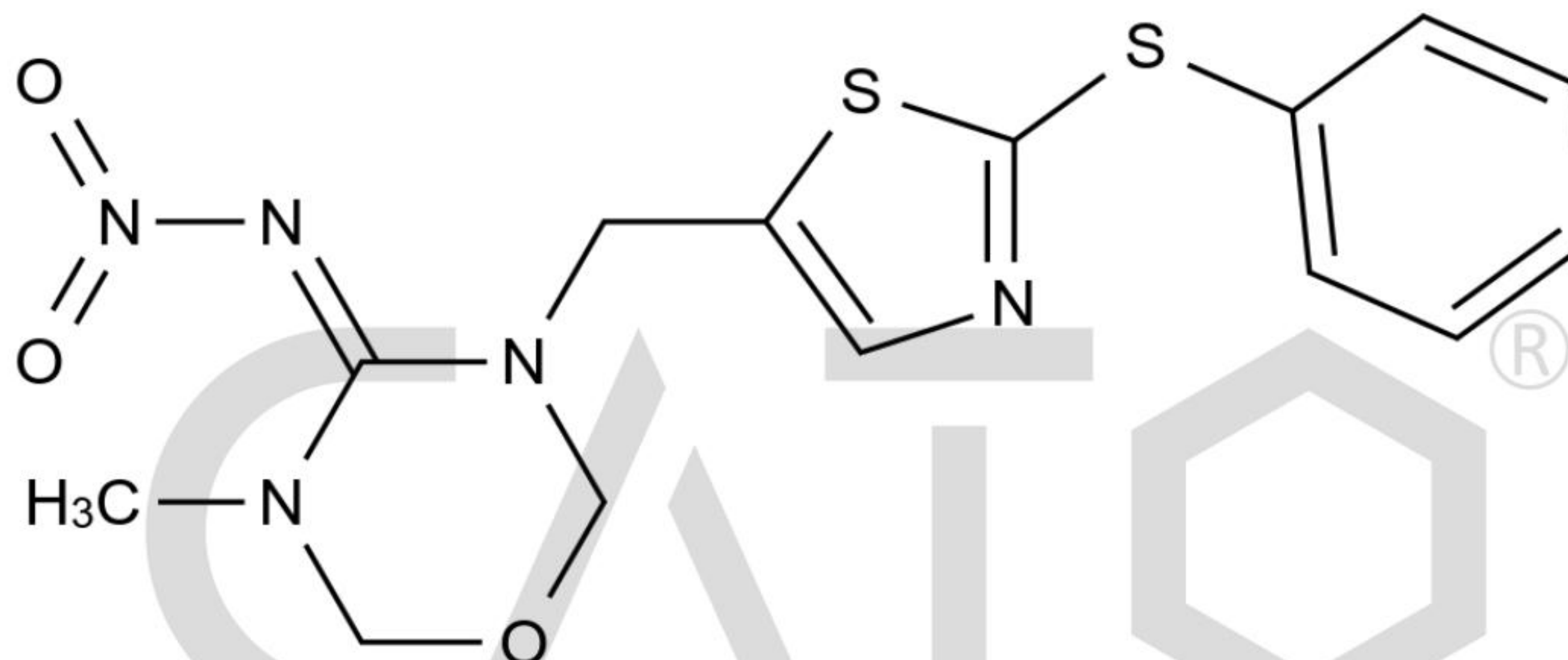
Certificate of Analysis

Reference Material & Standard

Product Name:	Thiamethoxam Impurity 3	Catalogue Number:	C1442933
Synonyms:	N/A	Lot Number:	0520-RF-0026
CAS Number:	192439-46-6	Expiry Date:	May 13, 2027
Molecular Formula:	C ₁₄ H ₁₅ N ₅ O ₃ S ₂	Storage:	-20°C±5°C Protected from light and Sealed
Molecular Weight:	365.43	Warning:	



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Pale Yellow Solid
Identification	LCMS&IR&HNMR	Confirmed
Purity	HPLC	99.7188%
Water Content	Karl Fischer	0.10%
Residual Solvents	NMR	0.4% acetonitrile
Assay		99.2%
Uncertainty		±2.0%

Comment:

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

$$\text{Assay (\%)} = (100\% - \text{Water Content} - \text{Residual Solvents}) * \text{Purity HPLC (\%)} / 100\%$$

Water Content and Residual Solvents are 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:

Lisa

Reviewed by:

Hinlam

Approved by General Manager:

David

Date: May 21, 2024

Date: May 21, 2024

Date: May 21, 2024

