

672841**Lot: 819660****Difenoconazole**1. General Information

Formula	C ₁₉ H ₁₇ Cl ₂ N ₃ O ₃	Expiry Date	01 Jul 2027
Mol. Weight	406.30 g/mol	Store at	20°C (in the dark)
CAS-No.	119446-68-3		

2. Batch Analysis

Identity	confirmed by NMR, LC-MS		
Overall Purity	99.98 % (g/g)	Expanded Uncertainty	3.47 % (g/g)
Assay Purity (HPLC)	99.98 % (g/g)	Uncertainty	0.17 % (g/g)
Water (Karl-Fischer)	<0.01 % (g/g)		
Inorganic Impurities	0.00 % (g/g)	Uncertainty	0.03 % (g/g)

Certified on 21 Jun 2023

by Stefanie Selbmann
RM Release

The overall purity is calculated by: $\text{Purity(\%)} = \frac{\text{Assay purity} \times (100 - \text{water content} - \text{impurities})}{100}$
For non-specified hydrates, the overall purity refers to the stated molecular formula.

The assigned values and uncertainties are determined in accordance with ISO 17034 with an 95% confidence level ($k=2$). Uncertainty is based on the total combined uncertainty, including uncertainties of characterisation, homogeneity and stability testing. The expiry date is based on the current knowledge and holds only for proper storage conditions of the originally closed flask. If the substance is proven to be unstable under the given storage conditions, you will be contacted immediately. The warranty of this product is limited to the purchasing price of this product and to the first point of use. The indicated long-term storage temperature can vary in a range of ± 4 °C.

Our standards are for laboratory use only and can be used as reference material for calibration of chromatographic systems or related analytical techniques. For handling instructions see the MSDS. A minimum sample of 2 mg is recommended. Deploying less material will increase the uncertainty by a factor 2 for half of sample and 4 for a quarter of sample. The material in the vial can be used multiple times, but it is strongly recommended that all external negative influences to the material are considered and ruled out (e.g. high temperatures, UV-radiation, moisture, oxygen). It is strongly recommended to open the vial at room temperature only and handle the material under inert gas if necessary. The integrity of the purity cannot be guaranteed if the substance is handled under unfavorable conditions.

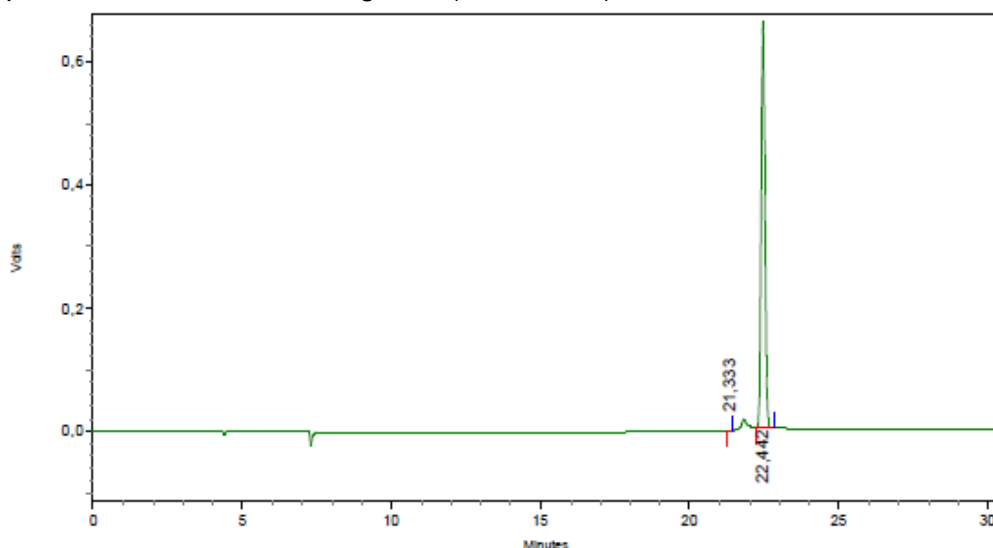
The balances used are calibrated with weights traceable to the national standards (DKD).

The HPC Standards GmbH, accredited by DAkkS as indicated by the accreditation number D-RM-20844-01-00, has shown competence based on ISO 17034:2017 for production of certified reference materials.



HPLC-Method

Article 672841
Lot-No. 819660
Column L=250mm, ID=4.6mm; Luna-Omega C18, 100A, 5µm
Eluent A Acetonitrile
Eluent B 0.1 % Phosphoric acid (Water)
Gradient
time %A %B
0min 0 100
22.5min 90 10
25min 90 10
Flow 1.0 ml min⁻¹
Detector UV-220nm
Injection-Volume 5 µl
Sample 0.3 mg ml⁻¹ (Acetonitrile)



Detector A - 1 (220nm)

Retention Time	Height	Area	Area Percent
21,333	210	1009	0,02
22,442	659760	5141560	99,98
Totals		659970	5142569
			100,00

Exemplary chromatogram of given method.

Version	Article	Lot	Reason for Change	Date
1	672841	819660	Initial Version	21 Jun 2023
2	672841	819660	Data Update	23 Aug 2024