

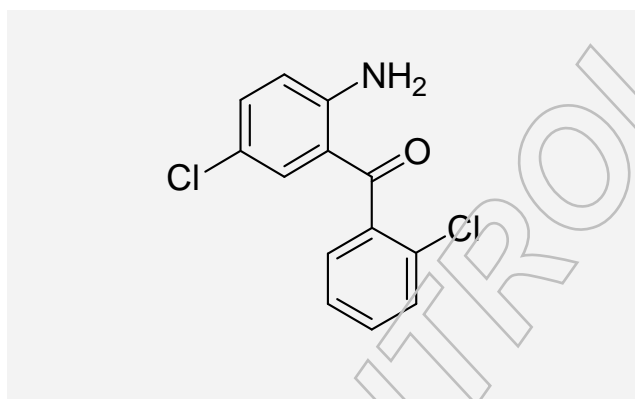
Certificate of Analysis

Reference Substance

2-Amino-2',5-dichlorobenzophenone

Catalogue Number: LGCFOR0071.01
Lot Number: 2577
Molecular Formula: C₁₃H₉Cl₂NO
Molecular Weight: 266.12
CAS Number: [2958-36-3]

Long-term Storage: 2 to 8 °C, dark
Appearance: yellow solid
Melting Point: 90 °C
Assay 'as is': 99.9 %



Date of shipment: **2016-May-20**

This certificate is valid for two years from the date of shipment provided the substance is stored under the recommended conditions.

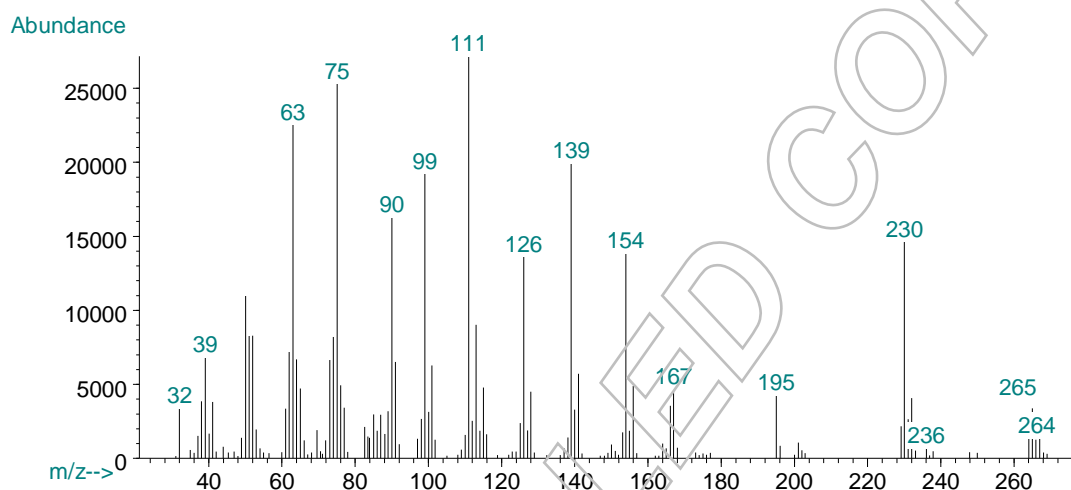
Release Date: 2010-06-17

LGC GmbH

Dr. Sabine Schröder
Product Release

I. Identity

The identity of the reference substance was established by gas chromatography - mass spectroscopy coupling (GC/MS). The structure is confirmed with the mol peak and the mass fragments of the following mass spectrum.



m/z	fragments
265	[M]
230	[M – Cl]
195	[M – 2Cl]
154	[M – C ₆ H ₄ Cl]
139	[M – C ₆ H ₅ ClNO]
126	[M – C ₇ H ₄ ClO]
111	[M – C ₇ H ₅ ClNO]

II. Purity

The purity of the reference substance was analysed by high performance liquid chromatography (HPLC).

HPLC Conditions:

Column:

RP 60 Select B
5 µm, 125 x 4 mm

Conditions:

1.0 ml/min, 40 °C
Water/Acetonitrile 50/50 (v/v);
0.1 % H₃PO₄

Detector:

DAD
235 nm

Injector:

Auto
5 µl; 0.0612 mg/ml in
Water/Acetonitrile 50/50 (v/v)

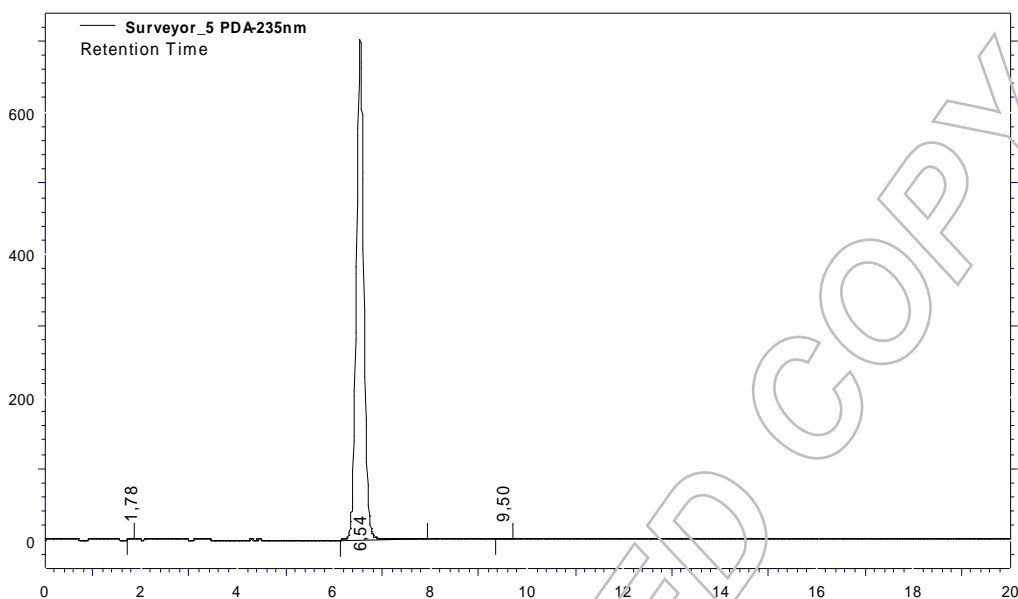


Excellence through measurement

LGCFOR0071.01 Lot Number 2577

LGC GmbH, Im Biotechnologiepark, TGZ II, D-14943 Luckenwalde, Germany

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Area Percent Report - Sorted by Signal

Pk #	Retention Time	Area	Area %
1	1.78	1420	0.02
2	6.54	7646568	99.98
3	9.50	398	0.01
Totals		7648386	100.00

For the calculation the system peaks were ignored. The content of the analyte was determined as ratio of the peak area of the analyte and the cumulative areas of the purities, added up to 100 %.

Results:

Average 99.98 %
Number of results n=6
Standard deviation 0.01 %

III. Water Content

Method: Karl Fischer titration

Results:

Average	0.08 %
Number of results	n=3
Standard deviation	0.01 %

IV. Final Result

Total impurities (HPLC)	0.02 %
Water content	0.08 %
Assay (100 % method)¹	99.90 %

The assay is assessed to be 99.9 % 'as is'

The assay 'as is' is equivalent to the assay based on the not anhydrous and not dried substance respectively.

¹ The calculation of the 100 % method follows the formula:

$$\text{Assay (\%)} = (100 \% - \text{KF} - \text{RES}) \times \frac{\text{Purity HPLC (\%)}}{100 \%}$$

Water (KF) and Residual solvents (RES) are considered as absolute contributions, HPLC purity is considered as relative contribution.

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