

CERTIFICATE OF ANALYSIS

BCR® – 115

ANIMAL FEED			
Compound ¹⁾	Mass fraction (based on dry mass)		Number of accepted sets of results p
	Certified value ²⁾ [mg/kg]	Uncertainty ³⁾ [mg/kg]	
HCB	0.0194	0.0014	7
β-HCH	0.0234	0.0026	7
γ-HCH	0.0218	0.0020	6
Heptachlor	0.0190	0.0015	7
γ-Chlordane	0.048	0.006	5
α-Endosulfan	0.046	0.004	8
Dieldrin	0.0181	0.0023	8
Endrin	0.046	0.006	7
p,p'-DDE	0.047	0.004	4
<p>1) As obtained by GC-ECD</p> <p>2) Certified values are values that fulfil the highest standards of accuracy. The certified value is the unweighted mean of the means of p sets of results, each set provided by different laboratories using GC-ECD under different conditions and with different sample preparation methods. The certified values are traceable to the International System of Units (SI).</p> <p>3) The uncertainty is taken as the half-width of the 95 % confidence interval of the mean value defined in 1).</p>			

This certificate is valid for one year after purchase.

Sales date:

The minimum amount of sample to be used is 1 g.

NOTE

This material has been certified by BCR (Community Bureau of Reference, the former reference materials programme of the European Commission). The certificate has been revised under the responsibility Reference Materials Unit of the Directorate F for Health, Consumers and Reference Materials.

Brussels, November 1995
Last revision: March 2020

Signed:



Dr Robert Koeber
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Directorate F – Health, Consumers and Reference Materials
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DESCRIPTION OF THE SAMPLE

The sample consists of a homogenised animal feed obtained from commonly used ingredients (selected to mimic a mixture of pig and poultry diet) and enriched with organochlorine pesticides. It is provided in sealed hard glass ampoules containing approx. 25 g under dry N₂. Additional information on the presence of α -HCH, p,p'-DDT, p,p'-TDE, β -heptachlorepoxide and aldrin is given in the report.

ANALYTICAL METHOD USED FOR CERTIFICATION

Calibration was done with solutions of pesticides made from compounds of verified purity and stoichiometry. The samples were extracted with solvents or a mixture of solvents e.g. iso-octane, hexane, hexane/acetone, cyclohexane/acetone, petroleum ether/acetone, dichloromethane/petroleum ether. Clean-up was carried out by column chromatography on basic alumina, silica gel, biobeads, Florisil® or by high performance liquid chromatography. Capillary gas chromatography with electron capture detection was performed using different injection systems, different columns and different temperature programmes.

PARTICIPANTS

- Centro Politécnico Superior de Ingenieros, Zaragoza (ES)
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- Keuringsdienst van Waren, Inspectie Gezondheidsbescherming, Utrecht (NL)
- Laboratoire Central d'Hygiène Alimentaire - CNEVA, Paris (FR)
- Milchwirtschaftliche Untersuchungs- und Versuchsanstalt - MUVA, Kempten (DE)
- Nat. Inst. of Public Health and Environmental Protection - RIVM, Bilthoven (NL)
- Nestec Ltd., Research Laboratories, Nestlé, Lausanne (CH)
- RIKILT-DLO, Wageningen (NL)
- Statens Landbrukskemiska Laboratorium - SLL, Uppsala (SE)
- TNO-Voeding, Zeist (NL)

SAFETY INFORMATION

The usual laboratory precautions apply.

INSTRUCTIONS FOR USE

The material is intended to be used for the verification of an analytical procedure or the performance of a method. It is not intended to be used as a calibrant.

A cooled ampoule is to be equilibrated to room temperature before opening.

The correction to dry mass should be made on a separate portion that should be dried in an oven at 105 °C for 2 h. The moisture content is approximately 5 g/100 g.

STORAGE

The ampoules should be stored at 4 ± 3 °C. Direct exposure to sunlight is to be avoided.

The European Commission cannot be held responsible for changes that happen during storage of the material at the customer's premises, especially of opened samples.

LEGAL NOTICE

Neither the European Commission, its contractors nor any person acting on their behalf:

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NOTE

A detailed certification report is available at <https://crm.jrc.ec.europa.eu/>. A paper copy can be obtained from the Joint Research Centre, Institute for Reference Materials and Measurements on request.

