FOOD & BEVERAGE

Our TraceCERT® Portfolio Keeps Growing!

New Organic Certified Reference Materials

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In late 2009, our site in Buchs, Switzerland achieved an ISO 17025 and ISO Guide 34 double accreditation by the Swiss accreditation body SAS, for the manufacturing of organic certified reference materials (CRMs) by quantitative NMR (qNMR). Just recently, our accreditation has been renewed and we are one of the first reference materials suppliers holding the new ISO 17034:2016 which is replacing ISO Guide 34:2009. This method enables us to establish traceability to NIST SRM for basically any organic compound without the need to have a CRM of the same compound available.

Since then, we have continually expanded our portfolio, which is currently comprised of over 250 organic CRMs. These products are marketed under the *Trace*CERT® brand and are suitable as calibrants for all kinds of chromatographic techniques.

Our extraordinary in-house skills in quantitative NMR, which is increasingly used as a quantitative analysis technique in the chemical and pharmaceutical industries, are constantly refined and extended. For our CRMs, we can reach uncertainties as low as 0.5% to 0.1%. Also, qNMR enables us to produce CRM solutions, even when only a very small amount of material is available (see article about the Tutin CRM solution on page 8 of this issue).

For those interested in more details about this versatile and efficient quantification technique, a large number of publications and technical articles are available.² You will also find a detailed technical qNMR brochure available as a pdf download on our website (**SigmaAldrich.com/qnmr**).

We continuously work on the expansion of the organic *Trace***CERT**® range. The most recent additions are shown in the table below and include pesticides, vitamins, antibiotics and parabens. Also among the new launches is a CRM for Taurine, for which an interesting analytical application for its detection in shampoo can be found on page 21.

References:

- 1. Double Accreditation Brings a New Class of CRMs. Analytix, Vol. 2, 2008.
- Traceable Organic Certified Reference Materials for 13P Quantitative NMR. Analytix, Vol. 2, 2015.

Figure 1. Some chemical Structures of new organic *Trace*CERT® CRMs.

Cortisone 39353

Benzbromarone 09147

Table 1. NEW organic neat CRMs $\textit{Trace}\textbf{CERT}^{\text{@}}$ for chromatography

Sulfadioxin 74627

Description	Package Size	Cat. No.
Benzbromarone	50 mg	09147
Cortisone	100 mg	39353
Denatonium benzoate	100 mg	93675
Ethylparaben	50 mg	79577
4-Methoxybenzoic acid	100 mg	93643
Methylparaben	50 mg	79721
2-Methylthiophene	100 mg	80364
Pyridoxine hydrochloride	50 mg	80823
Sodium benzoate	100 mg	52451
Sulfadoxin	100 mg	74627
Taurine	100 mg	93019
Triazophos	50 mg	68298
Trimethoprim	100 mg	16967

For more information, please visit SigmaAldrich.com/organiccrm