

# [News story: CEN updates affecting chemical measurements March 2017](#)

The following list of standards were published by the European Standardisation Organisation, CEN, during the period January to March 2017, some of which are relevant to chemical measurement in support of regulation. The standards are divided into separate areas.

## **REACH regulation**

The following two standards supersede existing standards published in 2012 and describe improvements in the analytical procedure and guidance on interpreting results.

[EN ISO 14362-1:2017](#) – Textiles – Methods for determination of certain aromatic amines derived from azo colorants – Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres.

[EN ISO 14362-3:2017](#) – Textiles – Methods for determination of certain aromatic amines derived from azo colorants. Detection of the use of certain azo colorants, which may release 4-aminoazobenzene.

These two standards relate to entry 43 to Annex XVII of the REACH Regulation (EC) No 1907/2006 which prohibits the use of azo colorants in textile and leather articles which may come into direct and prolonged contact with the human skin or oral cavity, which, by reductive cleavage of one or more azo groups, may release one or more of 22 listed aromatic amines in detectable concentrations, i.e. above 30 mg/kg (0.003 % by weight) determined by gas chromatography.

The following two standards supersede existing standards published in 2007 and describe improvements in the analytical procedure.

[EN ISO 17075-1:2017](#) Leather – Chemical determination of chromium (VI) content in leather – Part 1: Colorimetric method.

[EN ISO 17075-2:2017](#) – Leather – Chemical determination of chromium (VI) content in leather – Part 2: Chromatographic method.

Some studies have shown that sensitised individuals may react to the low levels of chromium (VI) that might migrate from leather articles coming into contact with the skin at a concentration of 3 mg/kg. This limit represents the quantitative limit of the analytical methods described in EN 17075.

## **Food**

[EN 14176:2017](#) – Foodstuffs – Determination of domoic acid in raw shellfish, raw finfish and cooked mussels by RP-HPLC using UV detection.

Domoic acid is produced by different species of Pseudo-nitzschia and other marine organisms such as the red alga Chondria armata and can potentially enter the food chain by contaminating shellfish and other types of seafood.

The standard describes a reverse phase high performance liquid chromatography (RP-HPLC) system with a UV detector. The limit of detection is about 10 ng/mL to 80 ng/mL (0.05 mg/kg to 0.4 mg/kg), depending on the UV detector sensitivity.

[EN 14526:2017](#) – Foodstuffs – Determination of saxitoxin-group toxins in shellfish. HPLC method using pre-column derivatization with peroxide or periodate oxidation.

Saxitoxin (STX)-group toxins are a group of closely related tetrahydropurines and have been detected in filter-feeding bivalve molluscs such as oysters, mussels and scallops.

Information on saxitoxin-group toxins in shellfish can be found in the [EFSA Opinion on Contaminants in the Food Chain](#) (Question No EFSA-Q-2006-065E): Marine biotoxins in shellfish – Saxitoxin group (The EFSA Journal (2009) 1019, 1-76).

Food Standards Scotland are currently performing a review titled: [Shellfish Review: Bivalve mollusc classification and monitoring: consultation on changes to the official control programme](#) and are inviting views on the proposed changes. The consultation closes on the 12 May 2017.

## Fertilizer feeds

[EN 16317:2013 + A1:2017](#) – Fertilizers and liming materials – Determination of arsenic by inductively coupled plasma-atomic emission spectrometry (ICP-AES) after aqua regia dissolution.

[EN 16320:2013 + A1:2017](#) – Fertilizers and liming materials – Determination of mercury by vapour generation (VG) after aqua regia dissolution.

[EN 15961:2017](#) – Fertilizers – Extraction of water-soluble calcium, magnesium, sodium and sulfur in the form of sulfates. This standard supersedes the existing standard published in 2011.

These standards are linked to EU Commission Mandate M/418 and M/335: Assigned to CEN concerning the modernisation of methods of analysis of fertilizers. The standards concern Regulation (EC) No 2003/2003 relating to fertilisers which is currently the subject of review by the EU Commission.

[EN 16877:2016](#) – Animal feeding stuffs – Methods of sampling and analysis. Determination of T-2 and HT-2 toxins, Deoxynivalenol and Zearalenone, in feed materials and compound feed by LCMS.

T-2 toxin, HT-2 toxin, deoxynivalenol (DON) and zearalenone (ZON) are mycotoxins produced by fungi of the Fusarium genus and can be found in various cereal crops used as animal feed.

The limit of quantitation (LOQ) for HT-2 and T-2 toxin is  $\leq 10 \mu\text{g}/\text{kg}$ , for DON  $\leq 100 \mu\text{g}/\text{kg}$ , and for ZON  $\leq 20\mu\text{g}/\text{kg}$ .

This is a new standard linked to EU Commission Mandate M/521: Methods of Analysis in the Field of Animal Nutrition Part I concerning Regulation (EC) No 882/2004: Official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules.

## **Animal and vegetable fats**

[EN ISO 6320:2017](#) – Animal and vegetable fats and oils – Determination of refractive index.

[EN ISO 663:2017](#) – Animal and vegetable fats and oils – Determination of insoluble impurities content.

[EN ISO 3960:2017](#) – Animal and vegetable fats and oils – Determination of peroxide value. Iodometric (visual) endpoint determination.

[EN ISO 8534:2017](#) – Animal and vegetable fats and oils – Determination of water content. Karl Fischer method (pyridine free).

[EN ISO 15774:2017](#) – Animal and vegetable fats and oils – Determination of cadmium content by direct graphite furnace atomic absorption spectrometry.

Milk and milk products (or fat coming from milk and milk products) are excluded from the scope of all the standards.

All these standards are revisions superseding earlier versions.

Further information on food legislation can be found on the Government Chemist website in the series [Food and feed law and legislation](#).