



Nutrient Management and Nutrient Recovery Thematic Network

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The New Fertilising
Products Regulation

New Legislative Framework

- Circular Economy approached
- Harmonisation rules apply on **placing on the market of EU Fertilising Products**
- A **product regulation**; does not regulate use of products or mode of application
- Still under consideration by EFTA
- **Applicable from 16 July 2022**
- **Beyond 2022-07-16 the EU and MS reg. will run parallel + MS Mutual Recognition**

An EU fertilising product:

- ✓ Meets the requirements for a **PRODUCT FUNCTION CATEGORY = 7 categories** - Manufacturers may claim more than one function
- ✓ Meets the requirement for a **COMPONENT MATERIAL CATEGORY** CMC 1-14 + need to comply REACH, End-of-Waste, Animal-by-products criteria
- ✓ Is **LABELLED** according to the requirements in FPR
- ✓ Passes the **CONFORMITY ASSESSMENT PROCEDURE**



New harmonised Fertilising Products Regulation(EU) 2019/1009

■ EC FERTILISERS

- **Opening the Single Market for bio-based fertilisers:**
- **Rules on safety and quality:** The new Regulation will provide strict rules on safety, quality and labelling requirements for all fertilisers to be traded freely across the EU.
- Divided into **product function categories (PFCs)**, which should each be subject to specific safety and quality requirements adapted to their different intended uses.
- **Component materials** divided into different categories, which should each be subject to specific process requirements.
- **CMC14 annex added on in 2021 for pyrolysis and gasification materials.**

Advantages of the new Regulation I.

- Making it **easier for producers of organic and recovered fertilisers to sell** with harmonized quality standards for all types of fertilizing material that can be traded across the European Union.
- **More choice for farmers**, reduced health and environmental risks for consumers.
- Eases market access for innovative, organic fertilisers, which would give farmers and consumers a wider choice and promote green innovation.
- **The maximum Cadmium limit of <1,5 mg/kg to apply in organic fertiliser and other bio-fertiliser cases will fully guarantee a high level of soil protection and reduce health and environmental risks**, while allowing producers to adapt their manufacturing process to comply with the new limits.

Advantages of the new Regulation II.

- **Boosting the use of organic and bio/waste-based fertilisers.**
- Promotes increased use of recycled materials for producing fertilisers, thus helping to develop the circular economy, while reducing dependence on imported nutrients.
- Establishes EU-wide quality, safety and environmental criteria for “EU” fertilisers.
- Increasing the consumer's confidence by guaranteeing the safety of fertilisers with regard to human health and the environment (in particular concerning the toxic elements, organic contaminants).
- **Full harmonisation of the internal market would remove all costs related to mutual recognition and/or divergence of national rules.**

Component Material Categories

CMC14: PYROLYSIS and GASIFICATION MATERIALS

- EU fertilising product may contain **pyrolysis or gasification materials (Annex II – CMC14) obtained through the thermochemical conversion under oxygen-limiting conditions.**
- EU Fertilising Products Regulation (EU 2019/1009) Annex II. CMC 14 will set the legal condition for:
 - INPUT MATERIAL allowed to be used
 - THERMOCHEMICAL CONVERSION PROCESS CONDITIONS (from 180C and 2 sec residence time ?+? (experts critics remarked during consultation)
 - **PRODUCTS CHARACTERISTICS: 6 mg/kg 16 PAHs as of 1976 US EPA. Cadmium >1.5 mg/kg.**
 - **REMARK MS national: 1 mg/kg 19 PAHs as of 2005.**
 - registered pursuant to REACH Regulation (EC) No 1907/2006

CMC14: INPUT MATERIAL

1. INPUT MATERIAL FOR PLANT BASED PYROLYSIS & GASIFICATION MATERIALS:

- **vegetable waste** from the food processing industry and fibrous vegetable waste from virgin pulp production and from production of paper from virgin pulp, if not chemically modified.
- **Processing residues** from bioethanol, biodiesel production.
- **Bio-waste**

2. INPUT MATERIAL FOR ANIMAL BY-PRODUCT BASED PYROLYSIS & GASIFICATION MATERIALS:

= Conditions set out in Article 32(1)-(2) and (3) of the Animal by products regulation (EC No 1069/2009)

- category 2 or category 3 animal by-product (bone grist, manure..),
- which is already pressure sterilized $>133^{\circ}\text{C}$ for at least 20 minutes at 3 bar
- delivered from EU/MS approved and registered rendering industrial plant.

Input materials excluded: mixed municipal waste, sewage sludge or dredging sludge.

CMC14: PRODUCTS CHARACTERISTICS

- max. 6 mg/kg dry matter of **PAH16** (note: in some MS 1 mg/kg/**PAH19** since 2005)
- max. 20 ng WHO toxicity equivalents of PCDD/F/kg dry matter
- max. 0,8 mg/kg dry matter of PCB
- max. 30 g/kg chlorine on a dry matter basis,
- max. 2 mg/kg dry matter of thallium
- H/Corg less than 0,7
-review of the Reg. will be done later on

REACH regulation for Biochar (EC) No 1907/2006

Registration, Evaluation, Authorisation and Restriction of Chemicals

- **Biochar is a chemically modified substance**, therefore REACH is mandatory above >1 t/y.
- REACH is applied for **import, manufacturing or placing on the market/use** of such materials.
- Registration and certification classes: 1-10 t/y, 10-100 t/y, 100-1000 t/y and **above 1000 t/y**.
- Complex hazard assessment.
- Costly procedure, cost often above €500,000.
- **As the economical BC production is usually above 1000 t/y the highest REACH to be applied.**

Interlink your biochar results to NUTRIMAN network

Nutriman Network 2018 - 2031

- **Criteria: market ready high TRL commercial biochar technologies and/or products only.**
- NUTRIMAN is not a research platform, its **minimum maturity level starting from >TRL7.**
- EU wide/global networking and cooperation.
- **Nutriman Network is also an capital rise and investment platform from 2022 to boost biobased economy in the EU, USA, AU and JP.**



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