



European Sustainable Phosphorus Platform



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EU Fertilisers Regulation

- Commission proposal March 2016 <http://ec.europa.eu/DocsRoom/documents/15949>
- Parliament position October 2017 <http://data.consilium.europa.eu/doc/document/ST-13610-2017-INIT/en/pdf>
- Council position December 2017 <http://data.consilium.europa.eu/doc/document/ST-14010-2017-REV-1/en/pdf>
- currently in Council - Parliament trilogue decision process

Ambitious:

- covers all fertilisers (mineral & organic), plant materials, composts & digestates, soil amendements, growing media, biostimulants, liming materials, etc.
- opens the market for recycled nutrient products, and for recycling technologies

Precedent!

- first EU Product Legislation to confer “End-of-Waste” status

EU Fertilisers Regulation

- *Annex I PFCs*
= *Product Function Categories*
- *Annex II CMCs*
= *Component Material Categories*
- *Annex III = Labelling Requirements*
- *Annex IV = Conformity Assessment Procedures*

*If you thought 'CMC's were input materials
and 'PFC's were finished products ...
Then you've got it mostly wrong
(BUT ... I don't understand any better ...)*

Article 6 **Obligations of manufacturers**

When placing CE marked fertilising products on the market, manufacturers shall ensure that they have been designed and manufactured in accordance with the requirements set out in Annex I for the relevant product function category and the requirements set out in Annex II for the relevant component material category or categories.

ANNEX II Component Material Categories

A CE marked fertilising product shall consist solely of component materials complying with the requirements for one or more of the Component Material Categories ('CMC') listed below.



“STRUBIAS” (Struvite, Biochar and Ash)*

** Now “precipitated phosphate salts & derivatives, thermal oxidation materials & derivatives and pyrolysis & gasification materials”*

To define Fertilisers Regulation criteria for these materials (as CMCs)

- Commission agreed to start definition of criteria for these materials in 2016*
- DG GROW mandate to JRC: February 2016*
- JRC draft report May 2017 and draft market report December 2017*
- Pre-Final Report 13th August 2018 – online at www.phosphorusplatform.eu/regulatory*

Finalisation: STRUBIAS Export Group meeting 25-27 September JRC Sevilla

Deadline comments to JRC = 14th September (via STRUBIAS Members ONLY)

Finally: DG GROW translate into CMC legal text to add to Annex II (hopefully)

NOTE: STRUBIAS CMCs can only be added to Regulation by Commission if Council and Parliament retain Commission “delegation” for Annexes



“STRUBIAS” Pre-Final Report

Circulated by JRC 13th August 2018 –online www.phosphorusplatform.eu/regulatory

Comments made largely taken into account

- ✓ Existing criteria in PFCs are not duplicated
- ✓ Dilution of contaminants in ash (if Hazardous)
- ✓ Processed ash (and phosphate salts) addressed



Questions requiring clarification

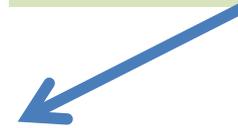
- Definitions of “intermediates” and “derivates”?
- Conformity assessment requirements?
(Annex IV: Module D1 “quality assurance of the production process”)
- Definition of phosphate salts (Fe+Al content?),
- Minimum temperature for pyrolysis processes?



- ❖ Use of sewage sludge as input to pyrolysis/gasification ?
- ❖ Exclusion of Animal By-Product Cat1 ash



These are some key points ...
to be completed and adjusted
– with YOUR input!



Key section pf JRC report is
proposed CMC criteria:
ch2. = pages 34-39

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EU Fertilisers Regulation *some outstanding issues* Industry Joint Statement 20th November 2017

see www.phosphorusplatform.eu/regulatory

- “Mineral” (<1% organic carbon) and “Low-carbon” fertilisers
- Resolve exclusion of industry by-products
- Importance of implementation guidance and assessment of Regulation implementation .
- Co-existence of production lines (CE and National fertilisers on same production site)
- Confirm & accelerate “STRUBIAS” process .
- Polymers: feasible and appropriate biodegradability criteria
- Animal By Products (ABPs)
- Respect normal REACH requirements
- Widen:
 CMC4 (Energy Crop Digestate), CMC3 (Compost),
 CMC5 (Other digestates), CMC6 (Food Industry By-Products), CMC2 (Processed Plant Materials)



EU Fertilisers Regulation *some outstanding issues*

Industry Joint Statement 20th November 2017

see www.phosphorusplatform.eu/regulatory

- *Ensure appropriate sanitisation for “biowastes”*
- *Labelling: ensure workability, legibility, ...*
- *Avoid “double sanitisation” of ABPs / animal manures*
- *Maintain COM delegation for Annexes*
- *Phosphorus solubility: in water or citric acid or NAC, coherence between PFCs and labelling*
- *Clarify definitions of “product lot” (Annex IV) – where and when measured*
- *Biostimulants: enable innovation in new microorganisms*
- *Improve definition for PFC 2 Liming Materials*
- *Contaminants: do not lower limits without scientific justification*
- *Arsenic limit should be expressed as inorganic arsenic*
- *Copper and zinc are micronutrients: require labelling, not limits*



EU Fertilisers Regulation

What does CMC1 mean in practice?

- “contain”, “consist”, “incorporated” ?
- exclusion of “by-products”
- exclusion if “formerly having constituted” wastes waste or by-products
- REACH Registration:
 - for “use as fertilising product”
 - 1000 tonne dossier (irrespective of real tonnage)

REQUIREMENTS RELATED TO COMPONENT MATERIAL CATEGORIES

This Part defines the component materials of which CE marked fertilising products shall solely consist.

CMC 1: VIRGIN MATERIAL SUBSTANCES AND MIXTURES

1. A CE marked fertilising product may contain substances and mixtures, other than⁸
 - (a) waste within the meaning of Directive 2008/98/EC,
 - (b) by-products within the meaning of Directive 2008/98/EC,
 - (c) materials formerly having constituted one of the materials mentioned in one of points a-b,
 - (d) animal by-products within the meaning of Regulation (EC) No 1069/2009,
 - (e) polymers, or
 - (f) substances or mixtures intended to improve the nutrient release patterns of the CE marked fertilising product into which they are incorporated.
2. All the substances incorporated into the CE marked fertilising product, in their own or in a mixture, shall have been registered pursuant to Regulation (EC) No 1907/2006, in a dossier containing
 - (a) the information provided for by Annex VI, VII and VIII of Regulation (EC) No 1907/2006, and
 - (b) a chemical safety report pursuant to Article 14 of Regulation (EC) No 1907/2006 covering the use as fertilising product,unless explicitly covered by one of the registration obligation exemptions provided for by Annex IV to that Regulation or by points 6, 7, 8, or 9 of Annex V to that Regulation.

EU Fertilisers Regulation & STRUBIAS “derivatives”

- JRC’s Pre-Final report, for ash and phosphate salts, also authorises (as CMCs): “derivates”
- that is after chemical reaction with an “intermediate” (as defined in REACH)

► C1 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 18 December 2006

concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH),

Article 3

15. intermediate: means a substance that is manufactured for and consumed in or used for chemical processing in order to be transformed into another substance (hereinafter referred to as synthesis):

Pre-final STRUBIAS Report

DRAFT STRUBIAS recovery rules and market study for precipitated phosphate salts & derivatives thermal

593 4. A CE marked fertilising product may contain derivates from precipitated phosphate salts
 594 compliant with paragraphs 1 to 3 as produced through a chemical manufacturing step that
 595 reacts the precipitate with intermediates within the meaning of Regulation (EC) No
 596 1907/2006 listed under point g) of paragraph 1.
 597

EU Fertilisers Regulation & STRUBIAS “derivates” & recycled materials

JRC suggest that you can, under CMC1 (“Virgin material substances and mixtures”) use a chemical which has “**formerly constituted waste**” if:

- 1) It has achieved **End-of-Waste**
- 2) It is **chemically reacted** (to produce a new chemical which is the CMC1)
- 3) The final product is appropriately REACH Registered

Pre-final STRUBIAS Report

Lines 1175-1190

DRAFT STRUBIAS recovery rules and market study for precipitated phosphate salts & derivatives thermal

However, it is not because the intermediate has been derived from waste, that the newly produced material is excluded from CMC 1; the intermediate left the waste regime by virtue of complying with all conditions (CMC level, PFC level, labelling requirements, and conformity assessment procedure) to become a CE marked fertilising product. A relevant example is, for instance, the STRUBIAS material triple superphosphate (TSP) derived from bone meal ash. Triple superphosphate is not only registered pursuant Regulation (EC) No 1907/2006 as a fertiliser (EC 232-379-5), but can also be used as an intermediate to produce a compound NPK fertiliser, i.e. a fertiliser with each nutrient contained in every granule or prill. In this case, the compound NPK producer can buy the CE marked TSP derived from bone meal ash (complying with CMC requirements for "thermal oxidation materials & derivatives" and PFC 1 C "inorganic fertilisers") on the internal market, use it as an intermediate, and produce a compound NPK through a chemical reaction that then requires a REACH registration according to Point 2 of CMC 1.

EU Fertilisers Regulation implementation

Future market will have both “National” and CE fertilising products

Implementation period ?

- three years? – what does that mean ?

Need for new CE Standards

- DG GROW draft mandate to CEN (21/11/2017)*
- lists more than 200 Standards to be adapted or developed*
- open for comment (available at www.phosphorusplatform.eu/regulatory)*

Need for Guidance and explanation documents

to accompany industry, distributors, farmers, regulators in implementation



Other actions underway

European Commission (DG ENVI & JRC Ispra) study on recycled nutrient products from manures for the Nitrates Directive (“processed manures”)

Call for input:

- Field test sites
- Data on nutrient leaching
- Agronomic performance
- LCA – environment – safety information

Contact: Bernd.GAWLIK@ec.europa.eu



Ispra, Thursday, 31 May 2018

EU-wide monitoring of manure supporting the development of safe processed manure criteria

In order to promote the sustainable recovery of nutrients from manure, a careful evaluation of agronomic benefit versus possible risks to the environment and health is of pivotal importance. Such an evaluation should be the basis for the development of harmonised criteria that better assess nitrogen fertilisers that are partially or entirely derived from manure.

Within this framework, the role of agricultural application of manure (processed or not) in the propagation of anti-microbial resistance (AMR), interspecies exchange and antibiotic resistant genes as well as the role of veterinary antimicrobial agents is a priority field of research of the European Commission. Indeed, there is a significant data gap on the detection of antibiotic resistance genes that have been introduced with

