



SCoFCAH meeting of 9.03.2010

Implementing measure Reg 767/2009:

List of substances to be classified as feed materials

Considerations:

- *Double-listing in feed material Catalogue and feed additive Register should be phased out (feed additive definition).*
- *Additive functions (Art. 5 a-f of Reg 1831/2003) are not exclusive for feed additives and can be as well exerted by feed materials (A feed material can -in line with Art 13- have claims about the nutritional value and about the physiological role ("assimilation, absorption or metabolism") of the nutrients in growth, development and normal functions of the body but the rules on "dietetic claims" (Art 9) have to be respected).*
- *Though feed materials must have as principal objective to meet a nutritional need the definition is wide enough to cover as well non-nutrients (e.g. vegetable carbon, silicates) or indirect nutrients (e.g. fibre fractions).*

Criteria:

Basis for case by case decision and used to get an overall picture (not in an isolated decisive way in the sense of a "decision tree"):

- *Production and processing method*
- *Level of standardisation – homogenisation – purity – chemical definition*
- *Mode of use – maximum incorporation rate*
- *Analogy: in the sense of consistency, the decision on similar products is taken into account*

Feed material list:

Chapter and products	Reasoning/Description
Minerals	Sources of calcium, potassium, phosphorus, magnesium, and sodium. Nutritional need "control individual mineral levels for balancer acid:base, ratio of Ca:P
Calcium carbonate	E 170
Calcium chloride	
Calcium sulphate (gypsum)	E 516 (CaSO ₄ . 2H ₂ O)
Potassium chloride	
Sodium carbonate	E 500(i)

Sodium bicarbonate	E 500(ii), Sodium hydrogen carbonate (NaHCO ₃)
Sodium sulphate (Glauber's salt)	3907 (Silage additive)
Calcium phosphates	E341 (i) Calcium tetrahydrogen Diorthophosphate and E341(ii), Calcium hydrogen orthophosphate
Sodium phosphates	E 450b (i), Pentasodium triphosphate
Calcium sodium phosphate	
Sodium magnesium phosphate	
Oils, fats, products derived thereof	Products from animal and vegetable oils and fats
Sodium, calcium, potassium salts of edible fatty acids: Calcium-/Sodiumbutyrate Calcium-/Sodium-/Potassiumstearate	E 470: Product obtained by saponification of fatty acids with calcium, sodium or potassium hydroxide; derived either from edible fats or from distilled edible fatty acids
Mono- and diglycerides from edible fatty acids	E471
Glycerol (crude glycerine)	E422
Propylene glycol	1,2-propanediol (C ₃ H ₈ O ₂), can be converted from glycerol or obtained from propylene oxide by hydrogenation
Various sugars	
Polyols (Sorbitol, Mannitol)	E420, E421
Lactulose	Semi-synthetic disaccharide (4-O-D-Galactopyranosyl-D-fructose) synthesized from lactose through the isomerisation of glucose to fructose. Naturally present in heat treated milk and milk products.
Derivatives of animal origin	
Glucosamine, Chitosamine	Amino sugar (monosaccharide) being part of the structure of the polysaccharides chitosan and chitin. Produced by the hydrolysis of crustacean and other <u>arthropods</u> exoskeletons or by fermentation of a grain such as corn or wheat (cell wall in <u>fungi</u> and many higher organisms (normal constituents of mucopolysaccharides of skeletal and soft connective tissue)
Chondroitin sulphate	polysaccharide with repeating unit consisting of an amino sugar and D-glucuronic acid. Sulphate esters of chondroitin are major structural components of cartilage, tendons and bones (normal constituents of mucopolysaccharides of skeletal and soft connective tissue)
Hyaluronic acid	Glucosamineglucan (polysaccharide) with repeating unit consisting of an amino sugar (N-acetyl-D-glucosamin) and D-glucuronic acid present in the skin, synovial fluid and the umbilical cord. Produced from animal tissue (cockscomb) or by bacterial fermentation.
Honey bee venom (Aпитoxin)	Product of worker bees from their abdomen, a mixture of acidic and basic secretions
Egg powder	Dried and pasteurised hen eggs without shells or a mixture of dried albumen and dried egg yolk
Derivatives of plant origin including herbs + botanicals	Derivatives fresh or preserved resulting from the treatment, e.g. drying, crushing, grinding of plant products
Plain caramel	Product obtained from controlled heating of carbohydrates
Pectins	E440 considered to comprise E440(i) and (ii) as defined in food

	additive legislation
Oligosaccharides (OS): Fructo-OS, Mannan-OS, Galacto-OS, Xylo-OS, Inulin	saccharide polymers containing typically three to ten component sugars. Derived from plants such as artichoke, chicory and asparagus or obtained from cell walls of micro-organisms or by chemical or microbial synthesis.
Plant sterols	Phytosterols are a group of steroid alcohols, naturally occurring in plants (vegetable oils) in small quantities and presented as free sterols or esterified with fatty acids
Methyl sulfonyl methane (MSM)	(CH ₃) ₂ SO ₂ , present naturally in some primitive plants and in small amounts in many foods and beverages
Tagetes flower meal	grinded meal of dried flowers of <i>Tagetes sp</i>
Paprika meal	grinded meal of dried fruits of <i>Capsicum annum</i>
Algae by-products	
Chlorella	suspension of the (living) micro-algae <i>Chlorella vulgaris</i> in water
Algae meal	dried and grinded meal of micro-algae such as <i>Schizochytrium sp.</i> , cells of which have been inactivated
Micro-organism derivatives	
Yeast meal	grinded meal of dried inactivated yeast cells of <i>Saccharomyces cerevisiae</i> , <i>Saccharomyces carlsbergensis</i> , <i>Kluyveromyces lactis</i> , <i>Kluyveromyces fragilis</i>
Fermentation (by-) products	Residual, non-standardised enzymatic activity possible
Solid-State-Fermentation by-product	Residue (dried and grinded) after enzyme extraction of solid state fermentation (micro-organism cells, e.g. <i>Aspergillus niger</i> have been inactivated)
Lysine vinasse	Fermentation residue after lysine-extraction
Fermented wheat germ	Product of spontaneous fermentation of wheat grains, less than 10 ⁸ CFU micro-organisms/kg or inactivated
Fermented herbs	Fermentation products based on merely physically processed plant materials