Allergen	LOD- Limit of Detection	LOQ - Limit of quantification	ULOQ- Upper Limit of Quantification	Reported as	Remarks
LC-MS allergen analysis					
Cereals total gluten deep-dive	0.04	5	1000	ppm	Determination of total gluten, wheat protein, barley protein, rye protein, oat protein and the individual proteins: wheat (HMW glutenin, LMW glutenin, γ-gliadins and α-amylase), barley (B3 hordein), rye (75k γ secaline), oats (avenin)
Wheat deep-dive	0.04	1.2	1000	ppm	Determination of total wheat protein and the individual proteins: HMW glutenin, LMW glutenin, γ-gliadins and α-amylase. But also total gluten, barley protein, rye protein, oat protein and the individual proteins: barley (B3 hordein), rye (75k γ secaline), oats (avenin).
Barley deep-dive	0.73	2.6	1000	ppm	Determination of total barley protein and specific barley protein B3 hordein. But also total gluten, wheat protein, rye protein, oat protein and the individual proteins: wheat (HMW glutenin, LMW glutenin, γ-gliadins and α-amylase), rye (75k γ secaline), oats (avenin).
Rye deep-dive	1.15	5	1000	ppm	Determination of total rye protein and specific rye protein 75k γ secaline. But also total gluten, wheat protein, rye protein, oat protein and the individual proteins: wheat (HMW glutenin, LMW glutenin, γ-gliadins and α-amylase), barley (B3 hordein), oats (avenin).
Oat deep-dive	0.13	1.5	80	ppm	Determination of total oat protein and specific oat protein avenin. But also total gluten, wheat protein, barley protein, rye protein and the individual proteins: wheat (HMW glutenin, LMW glutenin, γ-gliadins and α-amylase), barley (B3 hordein), rye (75k γ secaline).
Milk total deep-dive	0.09	0.9	1000	ppm	Determination of total milk protein and the individual milk proteins Bos d4, d5, d9, d10, d12 and d14 (α-S1-casein, α-S2-casein, β-casein, κ-casein, α-lactalbumin and β-lactoglobulin)

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Allergen	LOD- Limit of Detection	LOQ - Limit of quantification	ULOQ- Upper Limit of Quantification	Reported as	Remarks
Peanut total deep-dive	0.041	0.42	1000	ppm	Determination of total peanut protein and individual proteins: Ara h1, Ara h2, Ara h3 (cupin: Vicillin-type, 7S globulin and Legumin-type, 11S globulin, glycinin and conglutinin (2S albumin))
Legal allergens screening (qualitative)	-	-	-	Detected/ not-detected	Gluten (wheat, rye, barley, oats, spelt), shellfish, eggs (egg white and egg yolk), fish, peanut, soy, milk (casein and β-lactoglobulin), nuts (almonds, hazelnuts, walnuts, cashews, pecans, brazil nuts , pistachios, macadamia nuts), celery (leaves, stems, celeriac), mustard (brown, black, white/yellow and related species such as rapeseed and canola, S. arvensis and B. carinata), sesame seeds, lupin, molluscs. Sulphite and lactose excluded (are not proteins).
Regional allergens screening (qualitative)	-	-	-	Detected/ not-detected	Buckwheat, fenugreek, garlic, sunflower seeds, lentils, pea, faba bean, carrot, pine nuts, chestnut, coconut, apple, kiwi, peach.
ELISA test					
Almond	1.25	2.5	20	mg almond (23% protein) per kg of product	Accredited. Cross-reactivity with apricot stones, mulberry, cherry species (e.g. mahaleb), figs
Cashew	2	2	60	mg cashew (18% protein) per kg of product	Cross-reactivity with flaxseed and pistachio.
Egg	0.25	0.5	13.5	mg whole egg powder (49% protein) per kg of product	Accredited.
Egg (lysozyme) in cheese/sausage	0.125	0.25	2	mg lysozyme (sub-allergen egg) per kg of product	Egg lysozyme is used in cheese and sausages as a preservative (E1105)
Egg (lysozyme) in wine, whey	0.025	0.05	0.4	mg lysozyme (sub-allergen egg) per kg of product	Egg lysozyme can be used in wine

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Allergen	LOD- Limit of Detection	LOQ - Limit of quantification	ULOQ- Upper Limit of Quantification	Reported as	Remarks
Gluten (gliadin)	2.5	5	80	mg gluten per kg of product	Accredited, equivalent to AOAC 2012.01
Gluten (gliadin) competitive for hydrolysed products (soy sauce, malt, beer)	5	10	270	mg gluten per kg of product	Accredited. Specific ELISA analysis for hydrolysed gluten (soy sauce, malt extract, beer)
Hazelnut	1.25	2.5	20	mg hazelnut (15% protein) per kg of product	Accredited.
Lupin	0.7	1	27	mg lupin protein per kg of product	Accredited. Slight cross-reactivity with chickpea, soya, hazelnut, turmeric and fenugreek.
Macadamia	1	1	40	mg macadamia (7,9% protein) per kg of product	Cross-reactivity with flaxseed, hazelnut and walnut.
Milk (total protein)	1.25	2.5	67.5	mg milk protein (product-dependent conversion factor) per kg of product	Accredited, equivalent to AOAC 101501. Testing of casein and β-lactoglobulin is comnined in one analysis. Method is developed for detection of cow's milk, cross-reactivity with milk of other species.
Milk (total protein - low detection)	0.4	0.4	10	mg milk protein (product-dependent conversion factor) per kg of product	Method is developed for detection of cow's milk, cross-reactivity with milk of other species.
Milk (casein)	1.25	2.5	67.5	mg casein (sub-allergen milk) per kg of product	Accredited. Method is developed for detection of cow's milk, cross-reactivity with milk of other species.
Milk (casein) on chocolate, drinks and ice cream	0.25	0.5	13.5	mg casein (sub-allergen milk) per kg of product	Accredited. Method is developed for detection of cow's milk, cross-reaction with milk of other species.
Milk (casein) on wine	0.125	0.25	7.75	mg casein (sub-allergen milk) per kg of product	Method is developed for detection of cow's milk, cross-reaction with milk of other species.
Milk (casein - low detection)	0.2	0.2	6	mg casein (sub-allergen milk) per kg of product	Method is developed for detection of cow's milk, cross-reactivity with milk of other species and soy protein isolate.
Milk (cow) in goat/sheep milk	0.125	0.125	4	% cow's milk	For the detection of cow's and buffalo milk in products made from other species. Fraud detection.

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Allergen	LOD- Limit of Detection	LOQ - Limit of quantification	ULOQ- Upper Limit of Quantification	Reported as	Remarks
Milk (β-lactoglobulin) for whey products	0.1	0.2	4.5	mg β-lactoglobulin (sub-allergen milk) per kg of product	Accredited. β-lactoglobulin is the most important milk protein in whey products (whey is a by-product of cheese production, in which the casein proteins end up in the cheese). Method is developed for detection of cow's milk, cross-reactivity with milk of other species.
Milk (β-lactoglobulin - low detection) for whey products	0.01	0.01	0.4	mg β-lactoglobulin (sub-allergen milk) per kg of product	Method is developed for detection of cow's milk, cross-reactivity with milk of other species.
Milk (β-lactoglobulin) competitive for hydrolysed whey products (baby food)	2.5	5	400	mg β-lactoglobulin (sub-allergen milk) per kg of product	Hydrolysed whey products (baby food). Cross-reactivity with other milk proteins such as casein, (lacto)albumin.
Mustard	1.3	2	60	mg mustard (35% protein) per kg of product	Cross-reactivity with rapeseed and canola (B. rapa and B. napus), Sinapis arvensis, Raphanus raphanistrum en B. arvensis.
Peanut	0.37	0.75	6	mg peanut (22.2% protein) per kg of product	Accredited. No known cross-reactivity.
Pistachio	1	1	40	mg pistachio (21% protein) per kg of product	Cross-reactivity with cashew, flaxseed, horseradish, rapeseed and yellow mustard.
Crustaceans	10	20	160	mg crustaceans per kg of product	Cross-reactivity with kidney beans, pinto beans, white beans, curcuma, mustard, mussel, squid, snail, insects.
Sesame	1.25	2.5	20	mg sesame seed (21% protein) per kg of product	Accredited.
Soy	1.25	2.5	20	mg soy protein (product-dependent conversion factor) per kg of product	Accredited. Cross-reactivity with some types of beans (including adzuki bean, mung bean (bean sprouts) and runner bean), dried green pea and peanut.
Walnut	2	2	60	mg walnut (15% protein) per kg of product	Cross-reactivity with hazelnut, pecan and pistachio.
PCR quantitative					

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Allergen	LOD- Limit of Detection	LOQ - Limit of quantification	ULOQ- Upper Limit of Quantification	Reported as	Remarks
Almond	0.4	1	400	mg almond (21% protein) per kg product	
Cashew	0.4	1	400	mg cashew nut (18% protein) per kg product	
Hazelnut	0.4	1	400	mg hazelnut (15% protein) per kg product	
Lupin	0.4	1	400	mg lupine (42% protein) per kg product	
Macadamia nut	0.4	1	400	mg macadamia nut (13% protein) per kg product	
Mustard total	0.4	1	400	mg mustard seed (26% protein) per kg product	Detects of Sinapis alba (white mustard), Brassica juncea (brown or Indian mustard) and Brassica nigra (black mustard). Cross-reactivity with closely related species: Sinapis arvensis and Brassica carinata.No cross-reactivity with rapeseed (Brassica rapa) and oilseed rape (Brassica napus).
Brazil nut	0.4	1	400	mg Brazil nut (14% protein) per kg product	
Pecan	0.4	1	400	mg pecan nut (9% protein) per kg product	
Peanut	0.4	1	400	mg peanut (26% protein) per kg product	
Pistachio	0.4	1	400	mg pistachio nut (20% protein) per kg product	
Crustaceans	0.4	1	400	mg black tiger shrimp (21% protein) per kg product	Detects shrimp, crab and lobster. No detection of snails, shellfish, fish or insects. Cross-reactivity with abalone.
Celery	0.4	1	400	mg celery seed (18% protein) per kg product	Slight cross-reactivity with carrot

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Allergen	LOD- Limit of Detection	LOQ - Limit of quantification	ULOQ- Upper Limit of Quantification	Reported as	Remarks
Sesame	0.4	1	400	mg sesame seed (18% protein) per kg product	Cross-reactivity with devil's claw.
Soy	0.4	0.4	400	mg soy (36% protein) per kg of product	
Fish	1	4	400	mg salmon (20% protein) per kg product	Detects different fish species. No detection of snails, shellfish and crustaceans.Not suitable for high-processed products such as canned fish or fish sauce. Cross-reactivity with duck (musk, Australian white-eye).
Walnut	0.4	1	400	mg walnut (15% protein) per kg product	
PCR qualitative					
Mustard yellow (S. alba)	2	2	100	ppm	No cross-reactivity with brown/ black mustard (B. juncea/ B. nigra), rapeseed and canola (B. rapa and B. napus), Sinapis arvensis, Raphanus raphanistrum and B. arvensis.
Mustard brown/ black (B. juncea/ B. nigra)	2	2	100	ppm	No cross-reactivity with yellow mustard (S. alba), Sinapis arvensis, rapeseed and canola (B. rapa and B. napus), Raphanus raphanistrum but detects B. arvensis.
Molluscs	0.4	-	-	Detected/ not-detected	Detects shellfish, snails, squid (not shrimp, lobster and crab).
Lactose					
Lactose HPAEC-PAD	5	10	1000	mg lactose per kg product	Accreditated. No interference with other sugars. Official method ISO 22184:2021 - IDF 244:2021
Sulphites					
Sulphites LC-MS low detection	0.5	1	75	mg SO2 per kg product	Accredited. Interference high salt contents.
Sulphites standard Distillation	10	10	-	mg SO2 per kg product	Accredited. Total sulphite expressed as SO2 (distillation method).Sulphides naturally present in products (cabbage, leek, onion, garlic, soy protein, asparagus, black olives) and volatile food acids (vinegar, acetate, propionic acid) give false-positive results.

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Allergen	LOD- Limit of Detection	LOQ - Limit of quantification	ULOQ- Upper Limit of Quantification	Reported as	Remarks
Total protein					
Allergens/ protein in oil	1	1	-	ppm nitrogen	Allergens are proteins and all proteins contain nitrogen. The measured total nitrogen (N) is converted to the protein content. The method is based on chemiluminescence detection of nitrogen (ASTM D4629).Not suitable for oil with particles, such as used frying oil, and lecithin.
Product residue					
Allergens/ product in used deep-frying oil	-	-	-	mg product/ l oil	Calculation of concentration product residue in oil (e.g. after filtering, settling) based on particle analyses.
Allergens/ product in rinse water - send in: product before cleaning + clean process water + rinse water after cleaning	1	1	-	mg product/ l water	Measurement of (product) turbidity in water.
Allergens/ product rinse water - send in: rinse water	-	-	-	Detected/ not-detected	Measurement of (product) turbidity in water. Presence/absence according to Drinking Water Decree.
Allergen screening microscopy					
Allergens in agricultural products	-	-	-		Identification and determination of foreign materials like seeds, legumes or grains in vegetable products.
Combination packet					
Milk and soy	-	-	-		Package of 4 ELISA analysis: casein, ß-lactoglobulin, lactose and soy

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