

## Criteria for residues of chemicals in fishery products intended for export to EU

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(last updated 18 July 2018)

Product	Substances/Substance groups	EU Regulation (All criteria are subject to testing with analytical methods which comply with specific performance criteria <sup>1)</sup> )
All Fishery Products	Pesticides	No pesticides are allowed to be used in contact with fishery products.  By Regulation 395/2006 a default level of 0,1ppm applies to residues of all pesticides whether prohibited or allowed for use for other purposes (e.g. in pond preparation).
All fishery products	Dioxin and Dioxin like PCBs	(EC) 1886/2006 - see separate table below
All fishery products	Heavy Metals	(EC) 1886/2006 - see separate table below
All fishery Products from aquaculture	Residues pharmacological active substances from of veterinary medicines	EU Regulation (EC) 37/2010 prohibit the use of 10 substances and allow residues of many pharmacological active substances, however <u>only</u> subject to authorization by the national competent authorities. In Myanmar DOF Decision 2/2014 as amended by Directive 2/2017 shall apply:  <i>Prohibited substances</i> Aristolochia spp. and preparations thereof Chloramphenicol (MRPL = 0.3 µg/kg <sup>2)</sup> ) Chloroform Chlorpromazine Colchicine Dapsone Dimetridazole (As low possible, certainly no greater than 5 µg/kg ) Metronidazole (As low as possible, certainly no greater than 5 µg/kg ) Nitrofurans and metabolites (furalfadone, nitrofurantoin, nitrofurazone (MRPL: 1 µg/kg for all*)) Ronidazole Sum of malachite green and leucomalachite Green (MRPL: 2 µg/kg*)

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		<p><i>MRL (Maximum Residue Limits) for allowed substances:</i></p> <p>Ampicillin: 50 µg/kg - in muscle and skin in natural proportion</p> <p>Amoxicillin: 50 µg/kg - in muscle and skin in natural proportion</p> <p>Erythromycin: 200 µg/kg - in muscle and skin in natural proportion</p> <p>Sulfonamides: 100 µg/kg - in muscle and skin in natural proportion</p> <p>Tetracycline: 100 µg/kg - in muscle and skin in natural proportion</p> <p>Oxytetracycline: 100 µg/kg - in muscle and skin in natural proportion</p> <p>Lincomycin: 100 µg/kg - in muscle and skin in natural proportion</p> <p>Enrofloxacin: 100 µg/kg - in muscle and skin in natural proportion</p>

<sup>1)</sup> For chemical testing the analytical are optional to the extent that the laboratory shall document through validation that the method conform to certain performance criteria (detection limit (LOD), uncertainty, limit of quantification (LOQ) etc. For heavy metals, the analytical performance criteria are provided in Regulation (EC) 333/2007. For residues of veterinary medicines the performance criteria are provided in Commission Decision 2002/657/EC. Any laboratory conduction analysis for purpose of official control of these substances shall document compliance with the relevant performance criteria.

<sup>2)</sup> MRPL (Minimum Required Performance Level) is a technical limit meaning that the test method used shall be able at least to determine this level. If the test method can detect and quantify to a lower level, any positive finding shall be considered non-compliant (even if below the MRPL) because it means that there has been use of prohibited substance.

**Criteria for Dioxins and PCBs in fishery products EU Regulation (EC) 1886/2006 (subject to specific performance criteria for analytical methods <sup>3)</sup>)**

Section in the EU Regulation	Foodstuffs	Sum of Dioxins (WHO-PCDD/F-TEQ)	Sum of dioxins and dioxin-like PCBs (WHO-PCDD/F-PCB-TEQ)	Sum of PCB28, PCB52, PCB101, PCB138, PCB153 and PCB180
5.3	Muscle meat of fish and fishery products and products thereof with <u>the exemption of:</u> <ul style="list-style-type: none"> <li>• wild caught eel</li> <li>• wild caught spiny dogfish (<i>Squalus acanthias</i>)</li> <li>• wild caught fresh water fish, with the exception of diadromous fish species caught in fresh water</li> <li>• fish liver and derived products</li> <li>• marine oils</li> </ul> <p>The maximum level for crustaceans applies to muscle meat from appendages and abdomen. In case of crabs and crab-like crustaceans (<i>Brachyura</i> and <i>Anomura</i>) it applies to muscle meat from appendages.</p>	3,5 pg/g wet weight	6.5 pg/g wet weight	75ng/g wet weight
5.4	Muscle meat of wild caught fresh water fish, with the exception of diadromous fish species caught in fresh water, and products thereof	3,5 pg/g wet weight	6.5 pg/g wet weight	125ng/g wet weight
5.4a	Muscle meat of wild caught spiny dogfish ( <i>Squalus acanthias</i> ) and products thereof ( 34 )	3,5 pg/g wet weight	6.5 pg/g wet weight	200ng/g wet weight
5.5	Muscle meat of wild caught eel ( <i>Anguilla anguilla</i> ) and products thereof	3,5 pg/g wet weight	10,0 pg/g wet weight	300ng/g wet weight
5.6	Fish liver and derived products thereof with the exception of marine oils referred to in point 5.7		20,0 pg/g wet weight	200ng/g wet weight
5.7	Marine oils (fish body oil, fish liver oil and oils of other marine organisms intended for human consumption)	1,75 pg/g wet weight	6.0 pg/g wet weight	200ng/g wet weight

<sup>3)</sup> For dioxin and dioxin like PCBs the analytical performance criteria are provided in Regulation (EU) 2017/644. See also Note 1) above.

**Criteria for heavy metals in fishery products in EU Regulation (EC) 1886/2006 (subject to specific performance criteria for analytical methods, see note 1 above)**

Section in the EU Regulation	Metal	Foodstuffs	Maximum levels (mg/kg wet weight)
3.1	Lead		
3.1.8		Muscle meat of fish	0.30
3.1.10		Crustaceans excluding brown meat of crab and excluding head and thorax meat of lobster and similar large crustaceans ( <i>Nephropidae</i> and <i>Palinuridae</i> )	0.50
3.1.9		Cephalopods (without viscera)	1.0
3.1.18		Fats and oils, including milk fat	0.10

3.2	Cadmium		
3.2.12		Muscle meat of fish, excluding species listed in 3.2.13, 3.2.14, 3.2.15	0.050
3.2.13		Muscle meat of following fish: <ul style="list-style-type: none"> <li>• mackerel (<i>Scomber</i> species),</li> <li>• tuna (<i>Thunnus</i> species, <i>Katsuwonus pelamis</i>, <i>Euthynnus</i> species), bichique (<i>Sicyopterus lagocephalus</i>)</li> </ul>	0.10
3.2.14		<ul style="list-style-type: none"> <li>• Muscle meat of bullet tuna (<i>Auxis</i> species)</li> </ul>	0,15
3.2.15		<ul style="list-style-type: none"> <li>• Muscle meat of swordfish (<i>Xiphias gladius</i>), anchovy (<i>Engraulis</i> species), sardine (<i>Sardina pilchardus</i>)</li> </ul>	0.25
3.2.16		Crustaceans excluding brown meat of crab and excluding head and thorax meat of lobster and similar large crustaceans ( <i>Nephropidae</i> and <i>Palinuridae</i> )	0.50
3.2.18		Cephalopods (without viscera)	1.0
3.3	Mercury		
3.3.1		Fishery products and muscle meat of fish, excluding species listed in 3.3.2. The maximum level applies to crustaceans, excluding the brown meat of crab and excluding head and thorax meat of lobster and similar large crustaceans ( <i>Nephropidae</i> and <i>Palinuridae</i> )	0.50
3.3.2		Muscle meat of following fish: <ul style="list-style-type: none"> <li>• anglerfish (<i>Lophius</i> species)</li> <li>• Atlantic catfish (<i>Anarhichas lupus</i>)</li> <li>• bonito (<i>Sarda sarda</i>)</li> <li>• eel (<i>Anguilla</i> species)</li> <li>• emperor, orange roughy, rosy soldierfish (<i>Hoplostethus</i> species)</li> <li>• grenadier (<i>Coryphaenoides rupestris</i>)</li> <li>• halibut (<i>Hippoglossus hippoglossus</i>)</li> <li>• kingklip (<i>Genypterus capensis</i>)</li> <li>• marlin (<i>Makaira</i> species)</li> <li>• megrim (<i>Lepidorhombus</i> species)</li> <li>• mullet (<i>Mullus</i> species)</li> <li>• pink cusk eel (<i>Genypterus blacodes</i>)</li> <li>• pike (<i>Esox lucius</i>)</li> <li>• plain bonito (<i>Orcynopsis unicolor</i>)</li> <li>• poor cod (<i>Tricopterus minutes</i>)</li> <li>• Portuguese dogfish (<i>Centroscymnus coelolepis</i>)</li> <li>• rays (<i>Raja</i> species)</li> <li>• redfish (<i>Sebastes marinus</i>, <i>S. mentella</i>, <i>S. viviparus</i>)</li> <li>• sail fish (<i>Istiophorus platypterus</i>)</li> <li>• scabbard fish (<i>Lepidopus caudatus</i>, <i>Aphanopus carbo</i>)</li> <li>• seabream, pandora (<i>Pagellus</i> species) shark (all species)</li> <li>• snake mackerel or butterfish (<i>Lepidocybium flavobrunneum</i>, <i>Ruvettus pretiosus</i>, <i>Gempylus serpens</i>)</li> <li>• sturgeon (<i>Acipenser</i> species)</li> <li>• swordfish (<i>Xiphias gladius</i>)</li> <li>• tuna (<i>Thunnus</i> species, <i>Euthynnus</i> species, <i>Katsuwonus pelamis</i>)</li> </ul>	1.0