

## CHEMICAL REFERENCE CRITERIA FOR TRADITIONAL FISHERY PRODUCTS OF THAILAND EXPORTED TO EUROPEAN UNION AND NORWAY (lot by lot)

Item	Dried/ Smoked histamine poisoning fish	Dried Mollusc	Dried Cephalopod	Dried Crocodile	Dried/ Smoked aquaculture fish (except histamine poisoning fish)	Dried/ Smoked wild caught fish (except histamine poisoning fish)	Dried shrimp/ Instant rice porridge with dried shrimp	Fermented crab	Fermented fish	Fish roe products	Tai-Pla, Budoo	Fish sauce	Fish sauce powder	Oyster sauce	Salted mackerel	Seasoning sauce	Shrimp paste	Shrimp powder with chili	Shrimp/ crab paste with soybean oil	Fish powder with chili, Fish paste	Chili paste and Fish paste with soybean oil	Salted Jelly fish	Dried algae	gelatine / collagen	Fish oil	
Hist (µg/g)	n=9, c=2 m = 100, M = 200											400	400		n=9, c=2 m = 200, M = 400											
Biotoxin* (µg/g) :																										
- PSP		0.8												0.8												
- ASP		20												20												
- Sum of DSP, DTX and PTX		0.16												0.16												
- YTX		3.75												3.75												
- AZA		0.16												0.16												
Hg (µg/g)	1.0 <sup>F</sup> 0.5 <sup>E</sup>	0.5	0.5		0.5	1.0 <sup>F</sup> 0.5 <sup>E</sup>	0.5	0.5	0.5	1.0 <sup>F</sup> 0.5 <sup>E</sup>	0.5			0.5		0.5	0.5	0.5	0.5	0.5	0.5		0.15			
Cd (µg/g)	0.10 <sup>(B)(W)</sup> 0.15 <sup>(C)(W)</sup> 0.25 <sup>(D)(W)</sup> 0.05 <sup>(E)(W)</sup>	1.0 <sup>W</sup>	1.0 <sup>W</sup>		0.05 <sup>W</sup>	0.10 <sup>(B)(W)</sup> 0.15 <sup>(C)(W)</sup> 0.25 <sup>(D)(W)</sup> 0.05 <sup>(E)(W)</sup>	0.5 <sup>W</sup>	0.5	0.05	0.05	0.05			0.1		0.5	0.5	0.5	0.05	0.05		3.0 <sup>W</sup>	0.5			
Pb (µg/g)	0.3 <sup>G</sup>	1.5	0.3		0.3 <sup>G</sup>	0.3 <sup>G</sup>	0.5	0.5	0.3	0.3	0.3			0.3		0.5	0.5	0.5	0.3	0.3			5.0			
Sum of Ben and Sor (µg/g)	200 <sup>I</sup>				200 <sup>I</sup>	200 <sup>I</sup>		2000	2000	2000	2000			2000	200	2000	2000	2000	2000	2000						
CAP (µg/kg) (A)					0.3		0.3		0.3								0.3	0.3	0.3	0.3						
NF group (µg/kg) (A) :																										
- AOZ					1.0		1.0		1.0								1.0	1.0	1.0	1.0						
- AMOZ					1.0		1.0		1.0								1.0	1.0	1.0	1.0						
- AHD					1.0		1.0		1.0								1.0	1.0	1.0	1.0						
- SEM					1.0		1.0		1.0								1.0	1.0	1.0	1.0						
Sum of MG and LMG (µg/kg) (A)					2.0		2.0		2.0								2.0	2.0	2.0	2.0						

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<b>FQ group (µg/kg) (A) :</b>																									
- Dan							100											100	100						
- Sum of Enr and Cip							100											100	100						
- Dif							300											300	300						
- Sar																									
<b>QL group (µg/kg) (A) :</b>																									
- Flu					600		200		600									200	200	600	600				
- Oxo							100											100	100						
<b>TC group (µg/g) (A) :</b>																									
- OTC							0.1											0.1	0.1						
- TTC							0.1											0.1	0.1						
- CTC							0.1											0.1	0.1						
SO <sub>2</sub> (µg/g)																								50	
3-MCPD (µg/kg)																									2500

EU Remarks :

\* = test in raw material (edible tissue)

E = other fish and all snack products

A = Aquaculture

G = Including snack products

B = mackerel (*Scomber species* ), tuna (*Thunnus species* , *Katsuwonus pelamis* , *Euthynnus species* ), bichique (*Sicyopterus lagocephalus* )

I = Excluding snack products

C = bullet tuna (*Auxis species* )

W = ผลิตภัณฑ์แห้ง ราชอาณาจักรไทย Cd ในรูป wet weight

D = anchovy (*Engraulis species* ), sword fish (*Xiphias gladius* ), sardine (*Sardina pilchardus* )

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F = anglerfish (*Lophius species*)

atlantic catfish (*Anarhichas lupus*)

bonito (*Sarda sarda*)

eel (*Anguilla species*)

emperor, orange roughy, rosy soldierfish (*Hoplostethus species*)

grenadier (*Coryphaenoides rupestris*)

halibut (*Hippoglossus hippoglossus*)

kingklip (*Genypterus capensis*)

marlin (*Makaira species*)

megrim (*Lepidorhombus species*)

mullet (*Mullus species*)

pink cusk eel (*Genypterus blacodes*)

pike (*Esox lucius*)

plain bonito (*Orcynopsis unicolor*)

poor cod (*Tricopterus minutus*)

portuguese dogfish (*Centroscyllium coelolepis*)

rays (*Raja species*)

redfish (*Sebastes marinus, S. mentella, S. viviparus*)

sail fish (*Istiophorus platypterus*)

scabbard fish (*Lepidopus caudatus, Aphanopus carbo*)

seabream, pandora (*Pagellus species*)

shark (all species)

snake mackerel or butterfish (*Lepidocybium flavobrunneum*,

*Ruvettus pretiosus, Gempylus serpens*)

sturgeon (*Acipenser species*)

swordfish (*Xiphias gladius*)

tuna (*Thunnus species, Euthynnus species, Katsuwonus pelamis*)

Histamine analysis :

c = number of sample units giving values between m and M, total number of the samples giving the value between m

M = all type of fish product except for tuna, swordfish and sturgeon species

n = number of units comprising the sample