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**Agenda Item 6: Technical Guiding Elements on IMAP Implementation: Assessment Criteria and Scales, Thresholds, Baseline Values**

**Data Standards and Data Dictionaries for IMAP Common Indicator 20: Levels of contaminants in seafood**

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## Introduction

1. Data Standards (DSs) are prepared in the form of Excel spreadsheets in which every column indicates a field to be filled by the data providers. Data Dictionaries (DDs) are prepared in the form of Excel spreadsheets in which every row provides information to guide the data provider. DSs & DDs are spreadsheets included in the **same Excel file**, downloadable from the IMAP (Pilot) info system. The data uploaded using the Data Standards will be suitable for the inclusion in the database.
2. The proposal of DSs and DDs provides broader data sets and associated dictionaries than requested as mandatory by related IMAP Guidance Factsheets and Metadata Templates. In the Data Standards the **mandatory** data are represented in **black** and the **non-mandatory** ones in **red color**. The possibility to fill in also non-mandatory fields is given to allow the Contracting Parties that already have monitoring systems collecting a wider set of data to also report them as the additional data. Although it is at the discretion of the Contracting Parties to decide, reporting on non-mandatory data sets is **strongly encouraged** to avoid knowledge gaps between IMAP and other national data flows.
3. Following the outcome of respective CORMONs, the finalized DSs and DDs related to the 11 Common Indicators have been uploaded in the IMAP (Pilot) Info System and the consequent changes to the data base structure have been provided. Therefore, once all the parameters and measurement units have been defined, the correspondent data flow have been activated. Following a testing phase of the IMAP (Pilot) Info System realized with the voluntary participation of interested countries, the **phase I** of the system implementation is officially concluded in June 2020.
4. Starting from the middle of 2019, after the closure of the EcAp MED II Project, discussion about further modules has been started with the MAP Components for Common Indicators selected to deal with during phase I and for the remaining ones in view of ensuring data reporting for all IMAP Common Indicators according to the available resources.
5. The aim of the current document is to present the “draft” DSs & DDs related to **Common Indicator 18**. By reviewing this document, the present meeting is expected to provide **guidance, inputs and further reflections** on the draft DSs & DDs for Common Indicators 18 and 20. On this basis, a continuous process of harmonization with IMAP guidance factsheets and common indicators monitoring protocols is supported during the **phase II**.
6. As stated by previous **CORMON Meetings for Pollution and Marine Litter**, monitoring protocols should guide data standards development that is carried out in parallel with discussions on the agreed common monitoring methodologies. Information systems are a major tool to collect and transfer data.

## Data Standards and Data Dictionaries for IMAP Contaminants (EO9): Common Indicators 20

7. The present document provides proposal of the Data Standards and Data Dictionaries (DSs & DDs) aimed at collecting data on actual levels of contaminants that have been detected and number of contaminants which have exceeded maximum regulatory levels in commonly consumed seafood in the Mediterranean Sea.
8. As it is explained in IMAP Guidance factsheet for IMAP CI 20, its implementation beyond food consumer protection and public health would need to be determined. Thus, monitoring protocols, risk-based approaches, analytical testing and assessment methodologies would need to be further examined by the Contracting Parties' national food safety authorities, research organisations and/or environmental agencies.
9. The reference documents used as a basis for proposing this DSs and DDs, including the species to be monitored, are the following:

- i. IMAP Common Indicator Guidance Facts Sheets (Pollution and Marine Litter) (UNEP/MED WG.444/5);
- ii. IMAP Guidance Factsheets: Update for Common Indicators 13, 14, 17, 18, 20 and 21 (UNEP/MED WG.467/5);
- iii. IMAP Monitoring Guideline for Reporting Monitoring Data for IMAP Common Indicators 13, 14, 17, 18 and 20 (UNEP/MED WG.492/8).

**Common Indicator 20. Actual levels of contaminants that have been detected and number of contaminants which have exceeded maximum regulatory levels in commonly consumed seafood (EO9)**

10. One of the potential risks associated with the occurrence of harmful substances (chemicals, nanoparticles, microplastics, toxins) in the marine environment is the human exposure through commercial fish and shellfish species (primarily, from wild fisheries and aquaculture). These organisms are exposed to environmental contaminants which enter their organism through different mechanisms and pathways according to their trophic level, which include from filter feeding to predatory strategies (crustaceans, bivalves, fish). Consequently, there exist both bioaccumulation and biomagnification processes of these chemicals released in the marine environment. Common examples are well-known regarding bioaccumulation of metals and organic compounds in commercial bivalve species (such as the *Mytilus galloprovincialis* in the Mediterranean Sea) or alkyl mercury compounds (methylmercury) in tuna fish; the impacts of new and emerging contaminants should also be considered in the near future.

11. For IMAP CI 20, contaminants' levels should also be expressed in absolute figures and not only in relation to the regulatory level (i.e. above or below the regulatory level). Regulatory levels for the protection of human health as presented in EU Regulations (EC) No 1881/2006, (EC) No 835/2011 and EC No 1259/2011 (Annex III) are usually high in relation to the normal ambient concentrations of contaminants in marine organisms. However, recording the absolute concentration (and not the relative above/below the regulatory level information) triggers a warning signal in the event of an ascending trend of contaminants concentrations, even if these concentrations are still below the regulatory limit. It has to be underlined that concentrations below regulatory levels are not necessarily indicators of good environmental status, since environmental effects might be present at lower concentrations (JRC, 2010). Furthermore, recording the absolute concentration of pollutants generate data for contaminants, which may not be regulated yet but which might be regulated in the future.

12. The concentration limits for the regulated contaminants in the EU as presented in a concise format in Annex I have been considered for preparing this proposal of DDs and DSs for IMAP CI 20 in line with the conclusion of the Meeting of CorMon on Pollution Monitoring that was held from 26 to 28 April 2021. The list of contaminants includes Cd, Hg, Pb, four PAHs (benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene), dioxins, dioxin-like and non dioxin-like PCBs (PCB 28, PCB 52, PCB 101, PCB 138, PCB 153 and PCB 180) and radionuclides. Non-regulated contaminants could be included in the IMAP CI 20 monitoring programme, but for the time being no concentration limits are set in the EU legislation.

13. Integration of monitoring data for CI 20 have been made with care. JRC (2010) suggests to take into account "the frequency that levels exceed the regulatory levels, the actual levels that have been detected, the number of contaminants for which exceeding levels have been detected and in parallel the origin of the contamination (geological versus anthropogenic, local versus or long distance)". It also stipulates that "further an intake assessment taking into account the importance in the human diet of the species showing the exceeding levels could be taken into account" (JRC, 2010). If regulatory levels are exceeded in one species, that doesn't mean that all seafood consumption from this sub-region is dangerous.

14. In line with above, the initial proposal of the elements that have been agreed by the Meeting of CorMon on Pollution Monitoring were used for preparing this proposal of the Data Standards (DS) and Data Dictionaries (DDs) specific for CI 20 as provided here-below.

### **Module PSF1 - Levels of contaminants in seafood – IMAP C.I. 20**

15. The module PSF1 for reporting on the monitoring data for IMAP Common Indicator 20 into the IMAP Info System allows collecting data related to the type of contaminants detected in sea food, the actual levels detected and the exceeding of the regulatory levels for consumption by humans. This data along with the information on the time of sampling ensures evaluation of the frequency of the contaminants' concentration exceedance of the regulatory limits.

16. The DSs developed for this Module should allow to collect all data for the necessary statistical treatments and long-term time-trend evaluations.

17. *The DSs and DDs* related to IMAP CI 20 for characteristic parameters including contaminants information and the List of reference on chemicals are based on the DDs (contaminants information) which have been developed for IMAP CI17 (UNEP/MED WG.467/8).

18. The list of reference for chemicals proposed for IMAP CI 20 (Table 3) is also in use by the European Environmental Agency (EEA, WISE-Marine) and includes either the CAS numbers (Chemical Abstract Service reference number) or the EEA reference number (for particular EEA requirements). The mandatory contaminants<sup>1</sup> are represented in black (Cd, Hg, Pb, four PAHs (benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene), dioxins, dioxin-like and non dioxin-like PCBs and radionuclides) and the non-mandatory ones in red color.

19. The list of commercial species reported in Table 4 refers to JRC list of marine species of commercial interest in the different Mediterranean Regions (Marine strategy framework directive Task group 9 contaminants in fish and other seafood, April 2010)<sup>2</sup>.

20. If any species is not present among those listed, it is always possible to insert related data by filling in the SpeciesNameOther field.

**Table 1: DSs & DDs Module PSF1 (Levels of contaminants in seafood for IMAP CI20: Stations**

Field	Description	List of value
CountryCode	Member country code as ISO two digits, for example "IT" for Italy.	
NationalStationID	Specify the station code of the sample collection. In case information on location of collection is not available, then provide code of the fishing area. Specifically, in the case of fishing area, insert one of the Geographical Subarea number present in the 'Value' column of the Excel sheet 'List GSA'.	
NationalStationName	Specify the station name of the sample collection. In case information on location of	

<sup>1</sup> This list has been included in Annex III of the Monitoring Guideline for Reporting Monitoring Data for IMAP Common Indicators 13, 14, 17, 18 and 20 (UNEP/MED WG. 492/08)

<sup>2</sup> This list has been included in Annex I of the Monitoring Guidelines/Protocols for Sampling and Sample Preservation of Sea Food for IMAP Common Indicator 20: Heavy and Trace Elements and Organic Contaminants (UNEP/MED WG. 482/17)

Field	Description	List of value
	collection is not available, then provide name of the fishing area. Specifically, in the case of fishing area, insert one of the Geographical Subarea name present in the 'Description' column of the Excel sheet 'List GSA'.	
*Region	<b>Administrative subdivision of first level which the station belongs to (according to the country subdivision)</b>	
Latitude	Latitude of the sample collection in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). In case information on location of collection is not available, then provide the latitude of the centroid of the Fishing Area, referring to the Geographical Subarea (GSA) specified in NationalStationID.	
Longitude	Longitude of the sample collection in the WGS84 decimal degrees reference system with at least 5 digits (xx.xxxxx). Use positive values without '+' before numbers (for ex. 13.98078) for coordinates east of the Greenwich Meridian (0°) and negative values with '-' for coordinates west of the Greenwich Meridian (0°) (for ex. -2.6893). In case information on location of collection is not available, then provide the longitude of the centroid of the Fishing Area, referring to the Geographical Subarea (GSA) specified in NationalStationID.	
SampleCollectionType	Specify if the geographical information, entered in "Latitude" and "Longitude" fields, refers to the collection location (CL) or to the fishing area (FA), in case information on location of collection is not available. Enter one value in the list.	CL = Collection Location FA = Fishing Area
*ClosestCoast	<b>Station distance from the coast in km</b>	
TCMMatrix	Environmental matrix measured in the station, enter one of the values in the list.	B = Biota
SeaDepth	Sea depth in meters	
AreaTypology	Indicate the typology of the monitored area, enter one of the values in the list	R = Reference sites C = Coastal HS = Hot spot O = Others
Remarks	Notes	

\* non-mandatory under IMAP Guidance Factsheets

**Table 2: DSs & DDs Module PSF1** (Levels of contaminants in seafood) for IMAP CI 20:  
**Contaminants**

Field	Description	List of value
CountryCode	Member country code as ISO two digits, for example "IT" for Italy.	
NationalStationID	Specify the station code of the sample collection. In case information on location of collection is not available, then provide code of the fishing area. Specifically, in the case of fishing area, insert one of the Geographical Subarea number present in the 'Value' column of the Excel sheet 'List GSA'.	
Year	Year of sampling in YYYY format	
Month	Month of sampling in 1-12 format	
Day	Day of sampling in 1-31 format	
Time	Hours-minutes-seconds of sampling in HH:MM:SS format	
SampleID	Sample Code if multiple sampling are made with the same value as Year, Month, Day and Time.	
Matrix	Sample matrix, enter one value of the list	B = Biota
SampleDepth	Sampling depth in meters	
Salinity	Salinity (psu)	
Temperature	Temperature (°C)	
DissolveOxygen	Dissolved oxygen (µmol O <sub>2</sub> /l)	
SpeciesID	Monitored species. Enter one value of the column 'ID_Species' of the list 'List_species'	
SpeciesName	Monitored species. Enter one value of the column 'Label' of the list 'List_species'	
SpeciesNameOther	Name of species, in case not included in the list 'List_species'	
Specimen_lenght	Lenght of specimen in cm. In case of pooling, indicate mean lenght. (precision at 0,1 cm)	
*Specimen_lenght_sd	Standard deviation of average length of specimens in a pool in cm.	
Specimen_weight	Weight of specimen in g. In case of pooling, indicate mean weight. (precision at 0,1 g)	
*Specimen_weight_sd	Standard deviation of average weight of specimens in a pool in g.	
*Pooling	In case of pooling, describe the content of pooling as number of specimens and other methodological issues, taking into consideration the sampling requirements described in IMAP Monitoring Guidelines UNEP/MED WG.482/17	
DeterminHazSubsName	Name of the contaminant, enter one value of the column 'Label' of the list 'List_contaminants'	

Field	Description	List of value
DeterminHazSubsID	ID of the contaminant, enter one value of the column 'ID_Contaminant' of the list 'List contaminants'	
CASNumber	CAS number of contaminant, enter one value of the column 'CASNumber' of list 'List contaminants'	
Concentration	Concentration value of detected contaminant (DeterminHazSubsID)	
MRL	Maximum Regulatory Level for contaminant (DeterminHazSubsID)	
HazSubs_unit	Unit of measurement for the contaminant. Enter one value of the list	mg/kg = metals ug/kg = not metals
MRL_Flag	Enter the value '>' in case the concentration value of detected contaminant is above the Maximum Regulatory Level for contaminant (MRL). In the other cases, leave the field empty.	>= Concentration value of detected contaminant above MRL
Remarks	Notes	

\* non-mandatory under IMAP Guidance Factsheets

**Table 3:** DSs & DDs **Module PSF1** (Levels of contaminants in seafood) for CI 20: **List of contaminants**

ID Contaminant	Label	CASNumber
*CAS 90-12-0	1-methylnaphthalene	90-12-0
*CAS 75-34-3	1,1-dichloroethane	75-34-3
*CAS 75-35-4	1,1-dichloroethene	75-35-4
*CAS 563-58-6	1,1-dichloropropene	563-58-6
*CAS 71-55-6	1,1,1-trichloroethane	71-55-6
*CAS 630-20-6	1,1,1,2-tetrachloroethane	630-20-6
*CAS 1070-78-6	1,1,1,3-tetrachloropropane	1070-78-6
*CAS 79-00-5	1,1,2-trichloroethane	79-00-5
*CAS 79-34-5	1,1,2,2-tetrachloroethane	79-34-5
*CAS 96-12-8	1,2-dibromo-3-chloropropane	96-12-8
*CAS 106-93-4	1,2-dibromoethane	106-93-4
*CAS 95-50-1	1,2-dichlorobenzene	95-50-1
*CAS 107-06-2	1,2-dichloroethane	107-06-2
*CAS 540-59-0	1,2-dichloroethene	540-59-0
*CAS 78-87-5	1,2-dichloropropane	78-87-5
*CAS 87-61-6	1,2,3-trichlorobenzene	87-61-6
*CAS 96-18-4	1,2,3-trichloropropane	96-18-4
*CAS 35822-46-9	1,2,3,4,6,7,8-H7CDD	35822-46-9
*CAS 67562-39-4	1,2,3,4,6,7,8-H7CDF	67562-39-4
*CAS 3268-87-9	1,2,3,4,6,7,8,9-O8CDD	3268-87-9
*CAS 39001-02-0	1,2,3,4,6,7,8,9-O8CDF	39001-02-0
*CAS 39227-28-6	1,2,3,4,7,8-H6CDD	39227-28-6
*CAS 70648-26-9	1,2,3,4,7,8-H6CDF	70648-26-9
*CAS 55673-89-7	1,2,3,4,7,8,9-H7CDF	55673-89-7
*CAS 57653-85-7	1,2,3,6,7,8-H6CDD	57653-85-7
*CAS 57117-44-9	1,2,3,6,7,8-H6CDF	57117-44-9

*CAS 40321-76-4	1,2,3,7,8-P5CDD	40321-76-4
*CAS 57117-41-6	1,2,3,7,8-P5CDF	57117-41-6
*CAS 19408-74-3	1,2,3,7,8,9-H6CDD	19408-74-3
*CAS 72918-21-9	1,2,3,7,8,9-H6CDF	72918-21-9
*CAS 120-82-1	1,2,4-trichlorobenzene	120-82-1
*CAS 95-63-6	1,2,4-trimethylbenzene	95-63-6
*CAS 3194-55-6	1,2,5,6,9,10-hexabromocyclododecane	3194-55-6
*CAS 541-73-1	1,3-dichlorobenzene	541-73-1
*CAS 142-28-9	1,3-dichloropropane	142-28-9
*CAS 542-75-6	1,3-dichloropropene	542-75-6
*CAS 108-70-3	1,3,5-trichlorobenzene	108-70-3
*CAS 108-67-8	1,3,5-trimethylbenzene	108-67-8
*CAS 25637-99-4	1,3,5,7,9,11-hexabromocyclododecane	25637-99-4
*CAS 106-46-7	1,4-dichlorobenzene	106-46-7
*CAS 123-91-1	1,4-dioxane	123-91-1
*CAS 4904-61-4	1,5,9-cyclododecatriene	4904-61-4
*CAS 57-63-6	17alpha-ethinylestradiol (EE2)	57-63-6
*CAS 50-28-2	17beta-estradiol (E2)	50-28-2
*CAS 288-88-0	1H-1,2,4-Triazole	288-88-0
*CAS 25140-90-3	2-(2,6-dichlorophenoxy)propionic acid (2,6-DCPP)	25140-90-3
*CAS 3307-39-9	2-(4-chlorophenoxy)propionic acid (4-CPP)	3307-39-9
*CAS 16672-87-0	2-chloroethylphosphonic acid	16672-87-0
*CAS 95-57-8	2-chlorophenol	95-57-8
*CAS 95-49-8	2-chlorotoluene	95-49-8
*CAS 5466-77-3	2-Ethylhexyl 4-methoxycinnamate	5466-77-3
*CAS 1668-54-8	2-methyl-4-amino-6-methoxy-s-triazine	1668-54-8
*CAS 95-48-7	2-methyl-phenol	95-48-7
*CAS 91-57-6	2-methylnaphthalene	91-57-6
*CAS 135-19-3	2-naphthol	135-19-3
*CAS 594-20-7	2,2-dichloropropane	594-20-7
*CAS 526-75-0	2,3-dimethyl-phenol	526-75-0
*CAS 4901-51-3	2,3,4,5-tetrachlorophenol	4901-51-3
*CAS 58-90-2	2,3,4,6-tetrachlorophenol	58-90-2
*CAS 60851-34-5	2,3,4,6,7,8-H6CDF	60851-34-5
*CAS 57117-31-4	2,3,4,7,8-P5CDF	57117-31-4
*CAS 50-31-7	2,3,6-trichlorobenzoic acid	50-31-7
*CAS 51207-31-9	2,3,7,8-T4CDF	51207-31-9
*CAS 94-82-6	2,4-DB	94-82-6
*CAS 133-53-9	2,4-dichloro-3,5-dimethylphenol	133-53-9
*CAS 120-83-2	2,4-dichlorophenol	120-83-2
*CAS 94-75-7	2,4-dichlorophenoxyacetic acid, 2-4 D	94-75-7
*CAS 105-67-9	2,4-dimethyl-phenol	105-67-9
*CAS 121-14-2	2,4-dinitrotoluene	121-14-2
*CAS 93-76-5	2,4,5-T	93-76-5
*CAS 95-95-4	2,4,5-trichlorophenol	95-95-4
*CAS 732-26-3	2,4,6-tri-tert-butylphenol	732-26-3
*CAS 36065-30-2	2,4,6-tribromophenyl 2-methyl-2,3-dibromopropyl ether	36065-30-2
*CAS 88-06-2	2,4,6-trichlorophenol	88-06-2
*CAS 118-96-7	2,4,6-trinitrotoluene	118-96-7
*CAS 95-87-4	2,5-dimethylphenol	95-87-4
*CAS 2008-58-4	2,6-dichlorobenzamide	2008-58-4
*CAS 50-30-6	2,6-dichlorobenzoic acid	50-30-6
*CAS 87-65-0	2,6-dichlorophenol	87-65-0

*CAS 576-26-1	2,6-dimethyl-phenol	576-26-1
*CAS 128-37-0	2,6-Ditert-butyl-4-methylphenol	128-37-0
*CAS 16655-82-6	3-hydroxycarbofuran	16655-82-6
*CAS 59-50-7	3-methyl-4-chlorophenol	59-50-7
	3,3'-(ureylenedimethylene)bis(3,5,5'- trimethylcyclohexyl) diisocyanate	55525-54-7
*CAS 95-76-1	3,4-dichloroaniline	95-76-1
*CAS 95-65-8	3,4-dimethyl-phenol	95-65-8
*CAS 108-68-9	3,5-dimethyl-phenol	108-68-9
*CAS 793-24-8	4-(dimethylbutylamino) diphenylamin (6PPD)	793-24-8
*CAS 101-55-3	4-bromophenyl phenyl ether	101-55-3
*CAS 1570-64-5	4-chloro-2-methylphenol	1570-64-5
*CAS 106-43-4	4-chlorotoluene	106-43-4
*CAS 99-87-6	4-isopropyltoluene	99-87-6
*CAS 106-44-5	4-methyl-phenol	106-44-5
*CAS 104-40-5	4-nonylphenol	104-40-5
*CAS 84852-15-3	4-nonylphenol, branched	84852-15-3
*CAS 98-51-1	4-tert-butyltoluene	98-51-1
*CAS 1570-65-6	4,6-dichloro-2-methylphenol	1570-65-6
*CAS 83-32-9	Acenaphthene	83-32-9
*CAS 208-96-8	Acenaphthylene	208-96-8
*CAS 160430-64-8	Acetamiprid	160430-64-8
*CAS 34256-82-1	Acetochlor	34256-82-1
*CAS 187022-11-3	Acetochlor ESA	187022-11-3
*CAS 194992-44-4	Acetochlor OA	194992-44-4
*EEA 3151-01-7	Acid neutralizing capacity	
*EEA 3153-01-3	Acid neutralizing capacity to pH 4.5	
*CAS 74070-46-5	Aclonifen	74070-46-5
*CAS 79-06-1	Acrylamide	79-06-1
*CAS 107-13-1	Acrylonitrile	107-13-1
*CAS 15972-60-8	Alachlor	15972-60-8
*CAS 142363-53-9	Alachlor ESA	142363-53-9
*CAS 171262-17-2	Alachlor OA	171262-17-2
*CAS 116-06-3	Aldicarb	116-06-3
*CAS 1646-87-3	Aldicarb sulfoxide	1646-87-3
*CAS 1646-88-4	Aldoxycarb	1646-88-4
*CAS 309-00-2	Aldrin	309-00-2
*EEA 33-01-2	Alkalised benzene	
*CAS 959-98-8	Alpha-Endosulfan	959-98-8
*CAS 319-84-6	Alpha-HCH	319-84-6
*CAS 134237-50-6	alpha-Hexabromocyclododecane	134237-50-6
*CAS 7429-90-5	Aluminiium and its compounds	7429-90-5
*CAS 834-12-8	Ametryn	834-12-8
*CAS 120923-37-7	Amidosulfuron	120923-37-7
*CAS 1066-51-9	Aminomethylphosphonic acid (AMPA)	1066-51-9
*CAS 7664-41-7	Ammonia	7664-41-7
*CAS 14798-03-9	Ammonium	14798-03-9
*CAS 120-12-7	Anthracene	120-12-7
*CAS 7440-36-0	Antimony	7440-36-0
*CAS 59473-04-0	AOX	59473-04-0
*CAS 140-57-8	Aramite	140-57-8
*CAS 12767-79-2	Aroclor	12767-79-2
*CAS 7440-38-2	Arsenic and its compounds	7440-38-2

*CAS 1332-21-4	Asbestos	1332-21-4
*CAS 3337-71-1	Asulam	3337-71-1
*CAS 29122-68-7	Atenolol	29122-68-7
*CAS 1912-24-9	Atrazine	1912-24-9
*CAS 2642-71-9	Azinphos-ethyl	2642-71-9
*CAS 86-50-0	Azinphos-methyl	86-50-0
*CAS 83905-01-5	Azitromycin	83905-01-5
*CAS 131860-33-8	Azoxystrobin	131860-33-8
*CAS 7440-39-3	Barium	7440-39-3
*CAS 189084-64-8	BDE 100 (2,2',4,4',6-pentabromodiphenyl ether)	189084-64-8
*CAS 182677-30-1	BDE 138 (2,2',3,4,4',5'-hexabromodiphenyl ether)	182677-30-1
*CAS 68631-49-2	BDE 153 (2,2',4,4',5,5'-hexabromodiphenyl ether)	68631-49-2
*CAS 207122-15-4	BDE 154 (2,2',4,4',5,6'-hexabromodiphenyl ether)	207122-15-4
*CAS 68928-80-3	BDE 183 (Heptabromodiphenylether)	68928-80-3
*CAS 41318-75-6	BDE 28 (2,4,4'-tribromodiphenyl ether)	41318-75-6
*CAS 5436-43-1	BDE 47 (2,2',4,4'-tetrabromodiphenyl ether)	5436-43-1
*CAS 182346-21-0	BDE 85 (2,2',3,4,4'-pentabromodiphenyl ether)	182346-21-0
*CAS 60348-60-9	BDE 99 (2,2',4,4',5-pentabromodiphenyl ether)	60348-60-9
*CAS 3813-05-6	Benazolin	3813-05-6
*CAS 22781-23-3	Bendiocarb	22781-23-3
*CAS 1861-40-1	Benfluralin	1861-40-1
*CAS 83055-99-6	Bensulfuron-methyl	83055-99-6
*CAS 25057-89-0	Bentazone	25057-89-0
*CAS 71-43-2	Benzene	71-43-2
CAS 56-55-3	Benzo(a)anthracene	56-55-3
CAS 50-32-8	Benzo(a)pyrene	50-32-8
CAS 205-99-2	Benzo(b)fluoranthene	205-99-2
*CAS 191-24-2	Benzo(g,h,i)perylene	191-24-2
*CAS 207-08-9	Benzo(k)fluoranthene	207-08-9
*EEA 33-02-3	Benzol	
*CAS 95-14-7	Benzotriazol	95-14-7
*CAS 7440-41-7	Beryllium	7440-41-7
*CAS 33213-65-9	Beta-Endosulfan	33213-65-9
*CAS 319-85-7	Beta-HCH	319-85-7
*CAS 134237-51-7	beta-Hexabromocyclododecane	134237-51-7
*CAS 41859-67-0	Bezafibrate	41859-67-0
*CAS 42576-02-3	Bifenoxy	42576-02-3
*CAS 1163-19-5	Bis(pentabromophenyl) ether	1163-19-5
*CAS 80-05-7	Bisphenol A	80-05-7
*EEA 3133-01-5	BOD5	
*EEA 3133-02-6	BOD7	
*CAS 7440-42-8	Boron	7440-42-8
*CAS 188425-85-6	Boscalid	188425-85-6
*CAS 314-40-9	Bromacil	314-40-9
*CAS 15541-45-4	Bromate	15541-45-4
*CAS 24959-67-9	Bromide	24959-67-9
*EEA 32-04-2	Brominated diphenylethers (congener numbers 28, 47, 99, 100, 153 and 154)	
*EEA 33-04-5	Brominated flame retardants	
*CAS 108-86-1	Bromobenzene	108-86-1
*CAS 74-97-5	Bromochloromethane	74-97-5
*CAS 75-27-4	Bromodichloromethane	75-27-4
*CAS 75-25-2	Bromoform	75-25-2
*CAS 74-83-9	Bromomethane	74-83-9

*CAS 1689-84-5	Bromoxynil	1689-84-5
*CAS 1689-99-2	Bromoxynil octanoate	1689-99-2
*CAS 52-51-7	Bronopol	52-51-7
*EEA 33-05-6	BTEX	
*CAS 41483-43-6	Bupirimate	41483-43-6
*CAS 3766-60-7	Buturon	3766-60-7
*CAS 85-68-7	Butyl benzyl phthalate (BBP)	85-68-7
CAS 7440-43-9	Cadmium and its compounds	7440-43-9
*CAS 58-08-2	Caffeine	58-08-2
*CAS 7440-70-2	Calcium	7440-70-2
*CAS 133-06-2	Captan	133-06-2
*CAS 298-46-4	Carbamazepin	298-46-4
*CAS 63-25-2	Carbaryl	63-25-2
*CAS 10605-21-7	Carbendazim	10605-21-7
*CAS 16118-49-3	Carbetamide	16118-49-3
*CAS 1563-66-2	Carbofuran	1563-66-2
*CAS 7440-44-0	Carbon	7440-44-0
*CAS 56-23-5	Carbon tetrachloride	56-23-5
*CAS 3812-32-6	Carbonate	3812-32-6
*CAS 786-19-6	Carbophenothion	786-19-6
*EEA 123-06-8	Charaphytes presence	
*CAS 10599-90-3	Chloramide	10599-90-3
*CAS 14866-68-3	Chlorates	14866-68-3
*CAS 13360-45-7	Chlorbromuron	13360-45-7
*CAS 57-74-9	Chlordane	57-74-9
*CAS 143-50-0	Chlordecone (Kepone)	143-50-0
*CAS 6164-98-3	Chlordimeform	6164-98-3
*CAS 470-90-6	Chlorfenvinphos	470-90-6
*CAS 7790-93-4	Chloric acid	7790-93-4
*CAS 1698-60-8	Chloridazon	1698-60-8
*CAS 6339-19-1	Chloridazon desphenyl	6339-19-1
*CAS 17254-80-7	Chloridazon methyl desphenyl	17254-80-7
*CAS 16887-00-6	Chloride	16887-00-6
*EEA 33-06-7	Chlorinated benzene	
*EEA 33-07-8	Chlorinated phenol	
*EEA 3142-02-7	Chlorine Cl-	
*CAS 14998-27-7	Chlorite	14998-27-7
*CAS 85535-84-8	Chloroalkanes C10-13	85535-84-8
*CAS 85535-85-9	Chloroalkanes C14-17,MCCP	85535-85-9
*CAS 108-90-7	Chlorobenzene	108-90-7
*CAS 75-01-4	Chloroethene (vinylchloride)	75-01-4
*EEA 3164-01-0	Chlorophyll a	
*CAS 1897-45-6	Chlorothalonil	1897-45-6
*CAS 1418095-02-9	Chlorothalonil ESA (VIS-01)	1418095-02-9
*CAS 1982-47-4	Chloroxuron	1982-47-4
*CAS 2921-88-2	Chlorpyrifos	2921-88-2
*CAS 5598-13-0	Chlorpyrifos-methyl	5598-13-0
*CAS 64902-72-3	Chlorsulfuron	64902-72-3
*CAS 1918-13-4	Chlorthiamid	1918-13-4
*CAS 15545-48-9	Chlortoluron	15545-48-9
*EEA 33-08-9	Chromium (III)	
*CAS 18540-29-9	Chromium (VI)	18540-29-9
*CAS 7440-47-3	Chromium and its compounds	7440-47-3

*CAS 1333-82-0	Chromium trioxide (CrO3)	1333-82-0
CAS 218-01-9	Chrysene	218-01-9
*CAS 156-59-2	cis-1,2-dichloroethene	156-59-2
*CAS 10061-01-5	cis-1,3-dichloropropene	10061-01-5
*CAS 81103-11-9	Clarithromycin	81103-11-9
*CAS 81777-89-1	Clomazone	81777-89-1
*CAS 1702-17-6	Clopyralid	1702-17-6
*CAS 210880-92-5	Clothianidin	210880-92-5
*CAS 23593-75-1	Clotrimazole	23593-75-1
*CAS 7440-48-4	Cobalt and its compounds	7440-48-4
*EEA 3133-03-7	CODCr	
*EEA 3133-04-8	CODMn	
*CAS 7440-50-8	Copper and its compounds	7440-50-8
*CAS 56-72-4	Coumaphos	56-72-4
*CAS 21725-46-2	Cyanazine	21725-46-2
*EEA 11-06-3	Cyanobacteria biomass	
*EEA 11-07-4	Cyanobacteria proportion	
*CAS 506-77-4	Cyanogen chloride	506-77-4
*CAS 28159-98-0	Cybutryne	28159-98-0
*CAS 294-62-2	Cyclododecane	294-62-2
*CAS 101205-02-1	Cycloxydim	101205-02-1
*CAS 57966-95-7	Cymoxanil	57966-95-7
*CAS 52315-07-8	Cypermethrin	52315-07-8
*CAS 121552-61-2	Cyprodinil	121552-61-2
*CAS 75-99-0	Dalapon	75-99-0
*CAS 789-02-6	DDT, o,p'	789-02-6
*CAS 50-29-3	DDT, p,p'	50-29-3
*CAS 3397-62-4	Deisopropyldeethylatrazine	3397-62-4
*CAS 319-86-8	Delta-HCH	319-86-8
*CAS 52918-63-5	Deltamethrin	52918-63-5
*CAS 919-86-8	Demeton-S-methyl	919-86-8
*CAS 17040-19-6	Demeton-S-methylsulfon	17040-19-6
*CAS 52236-30-3	Desamino-diketo-metribuzin	52236-30-3
*CAS 6190-65-4	Desethylatrazine	6190-65-4
*CAS 30125-63-4	Desethylterbutylazine	30125-63-4
*CAS 1007-28-9	Desisopropylatrazine	1007-28-9
*CAS 13684-56-5	Desmedipham	13684-56-5
*CAS 1014-69-3	Desmetryn	1014-69-3
*EEA 33-09-0	Detergents	
*CAS 84-66-2	Di-ethyl phthalate	84-66-2
*CAS 84-69-5	Di-iso-butyl phthalate	84-69-5
*CAS 117-81-7	Di(2-ethylhexyl)phthalate (DEHP)	117-81-7
*CAS 333-41-5	Diazinon	333-41-5
*CAS 53-70-3	Dibenzo(a,h)anthracene	53-70-3
*CAS 262-12-4	Dibenzodioxin	262-12-4
*CAS 3252-43-5	Dibromoacetonitrile	3252-43-5
*CAS 124-48-1	Dibromochloromethane	124-48-1
*CAS 74-95-3	Dibromomethane	74-95-3
*CAS 84-74-2	Dibutylphthalate	84-74-2
*CAS 1002-53-5	Dibutyltin	1002-53-5
*CAS 1918-00-9	Dicamba	1918-00-9
*CAS 1194-65-6	Dichlobenil	1194-65-6
*CAS 79-43-6	Dichloroacetic acid	79-43-6

*CAS 3018-12-0	Dichloroacetonitrile	3018-12-0
*EEA 33-10-3	Dichlorobenzene	
*CAS 75-71-8	Dichlorodifluoromethane	75-71-8
*CAS 75-09-2	Dichloromethane	75-09-2
*EEA 33-11-4	Dichlorophenol	
*CAS 120-36-5	Dichlorprop (2,4-DP)	120-36-5
*CAS 15165-67-0	Dichlorprop-P	15165-67-0
*CAS 62-73-7	Dichlorvos	62-73-7
*CAS 15307-86-5	Diclofenac	15307-86-5
*CAS 15307-79-6	Diclofenac sodium	15307-79-6
*CAS 99-30-9	Dicloran	99-30-9
*CAS 115-32-2	Dicofol	115-32-2
*CAS 60-57-1	Dieldrin	60-57-1
*CAS 134-62-3	Diethyltoluamide (DEET)	134-62-3
*CAS 35367-38-5	Diflubenzuron	35367-38-5
*CAS 83164-33-4	Diflufenican	83164-33-4
*CAS 56507-37-0	Diketo-metribuzin	56507-37-0
*CAS 50563-36-5	Dimethachlor	50563-36-5
*CAS 87674-68-8	Dimethenamid	87674-68-8
*CAS 205939-58-8	Dimethenamid ESA	205939-58-8
*CAS 380412-59-9	Dimethenamid OA	380412-59-9
*CAS 60-51-5	Dimethoate	60-51-5
*CAS 110488-70-5	Dimethomorph	110488-70-5
*CAS 131-11-3	Dimethyl phthalate	131-11-3
*CAS 534-52-1	Dinitro-o-cresol (DNOC)	534-52-1
*CAS 88-85-7	Dinoseb	88-85-7
*CAS 2813-95-8	Dinoseb acetate	2813-95-8
*CAS 512-04-9	Diosgenin	512-04-9
EEA 33-54-5	Dioxin-like polychlorinated biphenyls (12 PCB-DLs: 77,81,105,114,118,123,126,156,157,167,169,189)	
EEA 33-58-9	Dioxins and dioxin-like compounds (7 PCDDs + 10 PCDFs + 12 PCB-DLs)	
*CAS 131-18-0	Dipentyl phthalate	131-18-0
*CAS 131-16-8	Dipropyl phthalate	131-16-8
*EEA 3133-05-9	Dissolved organic carbon (DOC)	
*EEA 3132-01-2	Dissolved oxygen	
*CAS 298-04-4	Disulfoton	298-04-4
*CAS 330-54-1	Diuron	330-54-1
*EEA 33-13-6	DOX	
*CAS 60-00-4	EDTA	60-00-4
*EEA 3142-01-6	Electrical conductivity	
*CAS 115-29-7	Endosulfan	115-29-7
*CAS 72-20-8	Endrin	72-20-8
*CAS 106-89-8	Epichlorohydrin	106-89-8
*CAS 133855-98-8	Epoxiconazole	133855-98-8
*CAS 6108-10-7	Epsilon-HCH	6108-10-7
*CAS 114-07-8	Erythromycin	114-07-8
*CAS 53-16-7	Estrone (E1)	53-16-7
*CAS 135410-20-7	Ethanimidamide	135410-20-7
*CAS 29973-13-5	Ethiofencarb	29973-13-5
*CAS 563-12-2	Ethion	563-12-2
*CAS 23947-60-6	Ethirimol	23947-60-6
*CAS 26225-79-6	Ethofumesate	26225-79-6
*CAS 2104-64-5	Ethyl O-(p-nitrophenyl) phenyl phosphonothionate (EPN)	2104-64-5

*CAS 100-41-4	Ethylbenzene	100-41-4
*CAS 75-21-8	Ethylene oxide	75-21-8
*CAS 96-45-7	Ethylenethiourea (ETU)	96-45-7
*CAS 80844-07-1	Etofenprox	80844-07-1
*EEA 33-14-7	Extractable organically bound chlorine	
*CAS 120928-09-8	Fenazaquin	120928-09-8
*CAS 13356-08-6	Fenbutatin oxide	13356-08-6
*CAS 299-84-3	Fenchlorphos	299-84-3
*CAS 122-14-5	Fenitrothion	122-14-5
*CAS 93-72-1	Fenoprop	93-72-1
*CAS 95617-09-7	Fenoxyprop	95617-09-7
*CAS 67564-91-4	Fenpropimorph	67564-91-4
*CAS 134098-61-6	Fenpyroximate	134098-61-6
*CAS 55-38-9	Fenthion	55-38-9
*CAS 101-42-8	Fenuron	101-42-8
*EEA 14-03-9	FishEQR A	
*EEA 14-04-0	FishEQR E	
*EEA 14-01-7	FishEQR G	
*EEA 14-02-8	FishEQR H	
*CAS 79241-46-6	Fluazifop-P-butyl	79241-46-6
*CAS 70124-77-5	Flucythrinate	70124-77-5
*CAS 142459-58-3	Flufenacet	142459-58-3
*CAS 201668-32-8	Flufenacet ESA	201668-32-8
*CAS 206-44-0	Fluoranthene	206-44-0
*CAS 86-73-7	Fluorene	86-73-7
*CAS 16984-48-8	Fluoride	16984-48-8
*CAS 7782-41-4	Fluorine	7782-41-4
*CAS 144-49-0	Fluoroacetic acid	144-49-0
*CAS 54910-89-3	Fluoxetine	54910-89-3
*CAS 136426-54-5	Fluquinconazole	136426-54-5
*CAS 69377-81-7	Fluroxypyr	69377-81-7
*CAS 81406-37-3	Fluroxypyr-meptyl	81406-37-3
*CAS 133-07-3	Folpet	133-07-3
*CAS 72178-02-0	Fomesafen	72178-02-0
*CAS 944-22-9	Fonofos	944-22-9
*CAS 50-00-0	Formaldehyde	50-00-0
*CAS 2540-82-1	Formothion	2540-82-1
*CAS 57-12-5	Free cyanide	57-12-5
*CAS 121776-33-8	Furilazole	121776-33-8
*CAS 58-89-9	Gamma-HCH (Lindane)	58-89-9
*CAS 134237-52-8	gamma-Hexabromocyclododecane	134237-52-8
*CAS 1071-83-6	Glyphosate	1071-83-6
*EEA 34-02-6	Groundwater Directive Annex II pollutant	
*EEA 33-15-8	Halogenated organic compounds	
*EEA 31-01-6	Hardness	
*EEA 32-25-7	Heavy metals - aggregated	
*CAS 76-44-8	Heptachlor	76-44-8
*EEA 33-50-1	Heptachlor and heptachlor epoxide	
*CAS 1024-57-3	Heptachlor epoxide	1024-57-3
*CAS 32241-08-0	Heptachloronaphthalene	32241-08-0
*CAS 2440-02-0	Heptachloronorbornene	2440-02-0
*CAS 36355-01-8	Hexabromobiphenyl	36355-01-8
*EEA 33-57-8	Hexabromocyclododecanes (HBCDD)	

*CAS 36483-60-0	Hexabromodiphenylether	36483-60-0
*CAS 118-74-1	Hexachlorobenzene	118-74-1
*CAS 87-68-3	Hexachlorobutadiene	87-68-3
*CAS 608-73-1	Hexachlorocyclohexane	608-73-1
*CAS 77-47-4	Hexachlorocyclopentadiene (HCCP)	77-47-4
*CAS 1335-87-1	Hexachloronaphthalene	1335-87-1
*CAS 107-46-0	Hexamethyldisiloxane (HMDS)	107-46-0
*CAS 51235-04-2	Hexazinone	51235-04-2
*EEA 33-17-0	Hydrocarbons	
*CAS 71-52-3	Hydrogen Carbonate (Bicarbonate) HCO3	71-52-3
*CAS 74-90-8	Hydrogen cyanide	74-90-8
*CAS 7783-06-4	Hydrogen sulphide	7783-06-4
*CAS 2163-68-0	Hydroxyatrazine	2163-68-0
*CAS 2599-11-3	Hydroxysimazine	2599-11-3
*CAS 66753-07-9	Hydroxyterbutylazine	66753-07-9
*CAS 15687-27-1	Ibuprofen	15687-27-1
*CAS 182636-13-1	Imazamox	182636-13-1
*CAS 138261-41-3	Imidacloprid	138261-41-3
*CAS 105827-78-9	Imidacloprid (Watch list only alternative code)	105827-78-9
*CAS 193-39-5	Indeno(1,2,3-cd)pyrene	193-39-5
*EEA 32-27-9	Industrial pollutants - aggregated	
*EEA 13-03-6	InvertebrateEQR_A	
*EEA 13-04-7	InvertebrateEQR_E	
*EEA 13-01-4	InvertebrateEQR_G	
*EEA 13-02-5	InvertebrateEQR_H	
*CAS 20461-54-5	Iodide	20461-54-5
*CAS 18181-70-9	Iodofenphos	18181-70-9
*CAS 185119-76-0	Iodosulfuron-methyl	185119-76-0
*CAS 1689-83-4	Ioxynil	1689-83-4
*CAS 36734-19-7	Iprodione	36734-19-7
*CAS 140923-17-7	Iprovalicarb	140923-17-7
*CAS 7439-89-6	Iron and its compounds	7439-89-6
*CAS 297-78-9	Isobenzene	297-78-9
*CAS 465-73-6	Isodrin	465-73-6
*EEA 123-07-9	Isoetides presence	
*CAS 98-82-8	Isopropylbenzene	98-82-8
*CAS 34123-59-6	Isoproturon	34123-59-6
*CAS 141112-29-0	Isoxaflutole	141112-29-0
*CAS 4234-79-1	Kelevan	4234-79-1
*EEA 3161-01-1	Kjeldahl nitrogen	
*CAS 143390-89-0	Kresoxim-methyl	143390-89-0
CAS 7439-92-1	Lead and its compounds	7439-92-1
*CAS 2164-08-1	Lenacil	2164-08-1
*CAS 330-55-2	Linuron	330-55-2
*CAS 7439-93-2	Lithium	7439-93-2
*CAS 108-38-3	M-xylene	108-38-3
*EEA 123-05-7	Macrophyte depth limit	
*EEA 123-03-5	MacrophyteEQR_A	
*EEA 123-04-6	MacrophyteEQR_E	
*EEA 123-01-3	MacrophyteEQR_G	
*EEA 123-02-4	MacrophyteEQR_H	
*CAS 7439-95-4	Magnesium	7439-95-4
*CAS 121-75-5	Malathion	121-75-5

*CAS 123-33-1	Maleinhydrazid	123-33-1
*CAS 7439-96-5	Manganese and its compounds	7439-96-5
*CAS 94-74-6	MCPA	94-74-6
*CAS 94-81-5	MCPB	94-81-5
*CAS 7085-19-0	Mecoprop	7085-19-0
*CAS 16484-77-8	Mecoprop-P (MCPP-P)	16484-77-8
CAS 7439-97-6	Mercury and its compounds	7439-97-6
*CAS 104206-82-8	Mesotriione	104206-82-8
*EEA 33-18-1	Meta xylene + para xylene	
*CAS 57837-19-1	Metalaxyl	57837-19-1
*CAS 70630-17-0	Metalaxyl-M	70630-17-0
*CAS 41394-05-2	Metamitron	41394-05-2
*CAS 67129-08-2	Metazachlor	67129-08-2
*CAS 172960-62-2	Metazachlor ESA	172960-62-2
*CAS 1231244-60-2	Metazachlor OA	1231244-60-2
*CAS 18691-97-9	Methabenzthiazuron	18691-97-9
*CAS 10265-92-6	Methamidophos	10265-92-6
*CAS 950-37-8	Methidathion	950-37-8
*CAS 2032-65-7	Methiocarb	2032-65-7
*CAS 16752-77-5	Methomyl	16752-77-5
*CAS 72-43-5	Methoxychlor	72-43-5
*CAS 136-85-6	Methylbenzotriazol	136-85-6
*CAS 3060-89-7	Metobromuron	3060-89-7
*CAS 51218-45-2	Metolachlor	51218-45-2
*CAS 171118-09-5	Metolachlor ESA	171118-09-5
*CAS 152019-73-3	Metolachlor OA	152019-73-3
*CAS 37350-58-6	Metoprolol	37350-58-6
*CAS 139528-85-1	Metosulam	139528-85-1
*CAS 19937-59-8	Metoxuron	19937-59-8
*CAS 21087-64-9	Metribuzin	21087-64-9
*CAS 35045-02-4	Metribuzin-DA	35045-02-4
*CAS 74223-64-6	Metsulfuronmethyl	74223-64-6
*CAS 7786-34-7	Mevinphos	7786-34-7
*CAS 77238-39-2	Microcystin	77238-39-2
*CAS 2385-85-5	Mirex	2385-85-5
*CAS 2212-67-1	Molinate	2212-67-1
*CAS 7439-98-7	Molybdenum and its compounds	7439-98-7
*EEA 33-19-2	Mono basic phenols	
*EEA 33-20-5	Monochlorophenols	
*CAS 1746-81-2	Monolinuron	1746-81-2
*CAS 150-68-5	Monuron	150-68-5
*CAS 4636-83-3	Morfamquat	4636-83-3
*CAS 1634-04-4	MTBE	1634-04-4
*CAS 81-15-2	Musk xylene	81-15-2
*CAS 104-51-8	n-butylbenzene	104-51-8
*CAS 4245-76-5	N-methyl-N'-nitroguanidine	4245-76-5
*CAS 103-65-1	n-propylbenzene	103-65-1
*CAS 3984-14-3	N,N-dimethylsulfamide	3984-14-3
*CAS 91-20-3	Naphthalene	91-20-3
*CAS 70776-03-3	Naphthalene, chloro derivatives	70776-03-3
*CAS 15299-99-7	Napropamide	15299-99-7
*CAS 22204-53-1	Naproxen	22204-53-1
*CAS 555-37-3	Neburon	555-37-3

*CAS 7440-02-0	Nickel and its compounds	7440-02-0
*CAS 111991-09-4	Nicosulfuron	111991-09-4
*CAS 14797-55-8	Nitrate	14797-55-8
*EEA 3164-08-7	Nitrate to orthophosphate ratio	
*CAS 14797-65-0	Nitrite	14797-65-0
*EEA 33-21-6	Nitrobenzene	
*CAS 556-88-7	Nitroguanidine	556-88-7
*CAS 1836-75-5	Nitrophen	1836-75-5
*CAS 100-02-7	Nitrophenol	100-02-7
*EEA 31613-01-1	Non-ionised ammonia	
*EEA 33-59-0	Nonylphenol and nonylphenol ethoxylates (NP + NPES)	
*CAS 9016-45-9	Nonylphenol ethoxylate	9016-45-9
*CAS 139-13-9	NTA	139-13-9
*CAS 95-47-6	O-xylene	95-47-6
*CAS 53-19-0	o,p'-DDD	53-19-0
*CAS 3424-82-6	o,p'-DDE	3424-82-6
*CAS 32536-52-0	Octabromodiphenyl ether	32536-52-0
*CAS 2234-13-1	Octachloronaphthalene	2234-13-1
*CAS 1806-26-4	Octylphenol	1806-26-4
*CAS 140-66-9	Octylphenol (4-(1,1',3,3'-tetramethylbutyl)-phenol)	140-66-9
*EEA 33-55-6	Octylphenols (CAS 1806-26-4) including isomer 4-(1,1',3,3'-tetramethylbutyl)-phenol (CAS 140-66-9)	
*EEA 33-22-7	Oil fractions (C10-40)	
*CAS 1113-02-6	Omethoate	1113-02-6
*CAS 34622-58-7	Orbencarb	34622-58-7
*EEA 33-60-3	Organotin compounds (as total Sn)	
*EEA 00-00-0	Other chemical parameter	
*EEA 34-03-7	Other pollutants - aggregated	
*CAS 19666-30-9	Oxadiazon	19666-30-9
*CAS 23135-22-0	Oxamyl	23135-22-0
*EEA 3131-01-9	Oxygen saturation	
*CAS 79-57-2	Oxytetracycline	79-57-2
*CAS 106-42-3	P-xylene	106-42-3
*CAS 72-54-8	p,p'-DDD	72-54-8
*CAS 72-55-9	p,p'-DDE	72-55-9
*CAS 56-38-2	Parathion	56-38-2
*CAS 298-00-0	Parathion-methyl	298-00-0
*EEA 3161-04-4	Particulate organic nitrogen	
CAS 37680-73-2	PCB 101 (2,2',4,5,5'-pentachlorobiphenyl)	37680-73-2
*CAS 60145-21-3	PCB 103 (2,2',4,5',6-pentachlorobiphenyl)	60145-21-3
*CAS 32598-14-4	PCB 105 (2,3,3',4,4'-pentachlorobiphenyl)	32598-14-4
*CAS 70362-41-3	PCB 106 (2,3,3',4,5'-pentachlorobiphenyl)	70362-41-3
*CAS 74472-37-0	PCB 114 (2,3,4,4',5-pentachlorobiphenyl)	74472-37-0
*CAS 31508-00-6	PCB 118 (2,3',4,4',5-pentachlorobiphenyl)	31508-00-6
*CAS 65510-44-3	PCB 123 (1,2,3-trichloro-5-(2,4-dichlorophenyl)benzene)	65510-44-3
*CAS 57465-28-8	PCB 126 (3,3',4,4',5-pentachlorobiphenyl)	57465-28-8
CAS 35065-28-2	PCB 138 (2,2',3,4,4',5'-hexachlorobiphenyl)	35065-28-2
CAS 35065-27-1	PCB 153 (2,2',4,4',5,5'-hexachlorobiphenyl)	35065-27-1
*CAS 38380-08-4	PCB 156 (2,3,3',4,4',5-hexachlorobiphenyl)	38380-08-4
*CAS 69782-90-7	PCB 157 (2,3,3',4,4',5'-hexachlorobiphenyl)	69782-90-7
*CAS 52663-72-6	PCB 167 (1,2,3-trichloro-5-(2,4,5-trichlorophenyl)benzene)	52663-72-6
*CAS 32774-16-6	PCB 169 (3,3',4,4',5,5'-hexachlorobiphenyl)	32774-16-6
*CAS 35065-30-6	PCB 170 (1,2,3,4-tetrachloro-5-(2,3,4-trichlorophenyl)benzene)	35065-30-6

CAS 35065-29-3	PCB 180 (2,2',3,4,4',5,5'-heptachlorobiphenyl)	35065-29-3
*CAS 39635-31-9	PCB 189 (1,2,3,4-tetrachloro-5-(3,4,5-trichlorophenyl)benzene)	39635-31-9
*CAS 35694-08-7	PCB 194 (1,2,3,4-tetrachloro-5-(2,3,4,5-tetrachlorophenyl)benzene)	35694-08-7
*CAS 2051-24-3	PCB 209 (5,5',6,6'-decachlorobiphenyl)	2051-24-3
CAS 7012-37-5	PCB 28 (2,4,4'-trichlorobiphenyl)	7012-37-5
CAS 35693-99-3	PCB 52 (2,2',5,5'-tetrachlorobiphenyl)	35693-99-3
*CAS 41464-42-0	PCB 72 (2,3',5,5'-Tetrachlorobiphenyl)	41464-42-0
*CAS 32598-13-3	PCB 77 (3,3',4,4'-tetrachlorobiphenyl)	32598-13-3
*CAS 70362-50-4	PCB 81 (3,4,4',5-tetrachlorobiphenyl)	70362-50-4
*CAS 66246-88-6	Penconazole	66246-88-6
*CAS 40487-42-1	Pendimethalin	40487-42-1
*CAS 32534-81-9	Pentabromodiphenylether	32534-81-9
*CAS 85-22-3	Pentabromoethylbenzene	85-22-3
*CAS 1825-21-4	Pentachloroanisole	1825-21-4
*CAS 608-93-5	Pentachlorobenzene	608-93-5
*CAS 16478-18-5	Pentachloroiodobenzene	16478-18-5
*CAS 1321-64-8	Pentachloronaphthalene	1321-64-8
*CAS 87-86-5	Pentachlorophenol	87-86-5
*CAS 1763-23-1	Perfluorooctane sulfonic acid (PFOS) and its derivatives	1763-23-1
*CAS 52645-53-1	Permethrin-cis+trans	52645-53-1
*EEA 32-26-8	Pesticides - aggregated	
*EEA 34-01-5	Pesticides (Active substances in pesticides, including their relevant metabolites, degradation and reaction products)	
*CAS 106700-29-2	Pethoxamid	106700-29-2
*EEA 33-23-8	Petroleum hydrocarbons	
*EEA 33-24-9	Petroleum products	
*CAS 335-67-1	PFOA	335-67-1
*EEA 3152-01-0	pH	
*CAS 85-01-8	Phenanthrene	85-01-8
*CAS 108-95-2	Phenol	108-95-2
*CAS 64743-03-9	Phenols	64743-03-9
*CAS 298-02-2	Phorate	298-02-2
*CAS 2310-17-0	Phosalone	2310-17-0
*CAS 14265-44-2	Phosphate	14265-44-2
*EEA 124-03-8	PhytobenthosEQR_A	
*EEA 124-04-9	PhytobenthosEQR_E	
*EEA 124-01-6	PhytobenthosEQR_G	
*EEA 124-02-7	PhytobenthosEQR_H	
*EEA 11-03-0	PhytoplanktonEQR_A	
*EEA 11-04-1	PhytoplanktonEQR_E	
*EEA 11-01-8	PhytoplanktonEQR_G	
*EEA 11-02-9	PhytoplanktonEQR_H	
*CAS 1918-02-1	Picloram	1918-02-1
*CAS 137641-05-5	Picolinafen	137641-05-5
*CAS 23103-98-2	Pirimicarb	23103-98-2
*CAS 23505-41-1	Pirimiphos-ethyl	23505-41-1
*CAS 29232-93-7	Pirimiphos-methyl	29232-93-7
*CAS 1336-36-3	Polychlorinated biphenyls	1336-36-3
EEA 33-38-5	Polychlorinated biphenyls(7 PCB: 28,52,101,118,138,153,180)	
*EEA 33-26-1	Polychlorinated dibenzodioxins (PCDD)	
*CAS 136677-10-6	Polychlorinated dibenzofurans (10 PCDFs)	136677-10-6
*CAS 7440-09-7	Potassium	7440-09-7
*CAS 86209-51-0	Primisulfuron-methyl	86209-51-0

*CAS 67747-09-5	Prochloraz	67747-09-5
*CAS 32809-16-8	Procymidone	32809-16-8
*CAS 1610-18-0	Prometon	1610-18-0
*CAS 7287-19-6	Prometryn	7287-19-6
*CAS 1918-16-7	Propachlor	1918-16-7
*CAS 709-98-8	Propanil	709-98-8
*CAS 139-40-2	Propazine	139-40-2
*CAS 31218-83-4	Propetamphos	31218-83-4
*CAS 60207-90-1	Propiconazole	60207-90-1
*CAS 114-26-1	Propoxur	114-26-1
*CAS 525-66-6	Propranolol	525-66-6
*CAS 23950-58-5	Propyzamide	23950-58-5
*CAS 52888-80-9	Prosulfocarb	52888-80-9
*CAS 94125-34-5	Prosulfuron	94125-34-5
*CAS 129-00-0	Pyrene	129-00-0
*CAS 96489-71-3	Pyridaben	96489-71-3
*CAS 55512-33-9	Pyridate	55512-33-9
*CAS 53112-28-0	Pyrimethanil	53112-28-0
*CAS 124495-18-7	Quinoxifen	124495-18-7
*CAS 82-68-8	Quintozene	82-68-8
*CAS 76578-12-6	Quizalofop	76578-12-6
*CAS 100646-51-3	Quizalofop-P-ethyl	100646-51-3
EEA 33-27-2	Radionuclides	
*CAS 122931-48-0	Rimsulfuron	122931-48-0
*CAS 7286-69-3	Sebutylazine	7286-69-3
*CAS 135-98-8	sec-butylbenzene	135-98-8
*CAS 26259-45-0	Secbumeton	26259-45-0
*EEA 3111-01-1	Secchi depth	
*CAS 7782-49-2	Selenium and its compounds	7782-49-2
*EEA 3163-01-7	Silicate	
*CAS 7440-21-3	Silicon	7440-21-3
*CAS 7440-22-4	Silver	7440-22-4
*CAS 122-34-9	Simazine	122-34-9
*CAS 7440-23-5	Sodium	7440-23-5
*CAS 151-21-3	Sodium dodecyl sulfate	151-21-3
*CAS 118134-30-8	Spiroxamine	118134-30-8
*CAS 7440-24-6	Strontium	7440-24-6
*CAS 100-42-5	Styrene	100-42-5
*CAS 99105-77-8	Sulcotriione	99105-77-8
*CAS 723-46-6	Sulfamethoxazol	723-46-6
*CAS 141776-32-1	Sulfosulfuron	141776-32-1
*CAS 18785-72-3	Sulphate	18785-72-3
*EEA 33-28-3	Surfactants (anionic and nonionic)	
*EEA 33-29-4	Surfactants (anionic)	
*CAS 994-05-8	TAME	994-05-8
*CAS 1746-01-6	TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin)	1746-01-6
*CAS 107534-96-3	Tebuconazole	107534-96-3
*CAS 112410-23-8	Tebufenozide	112410-23-8
*CAS 13071-79-9	Terbufos	13071-79-9
*CAS 33693-04-8	Terbumeton	33693-04-8
*CAS 5915-41-3	Terbutylazine	5915-41-3
*CAS 886-50-0	Terbutryn	886-50-0
*CAS 98-06-6	tert-butylbenzene	98-06-6

*CAS 79-94-7	Tetrabromobisphenol A (TBBP-A)	79-94-7
*CAS 40088-47-9	Tetrabromodiphenylether	40088-47-9
*CAS 1461-25-2	Tetrabutyltin	1461-25-2
*CAS 127-18-4	Tetrachloroethylene	127-18-4
*CAS 1335-88-2	Tetrachloronaphthalene	1335-88-2
*CAS 25167-83-3	Tetrachlorophenols	25167-83-3
*CAS 2227-13-6	Tetrasul	2227-13-6
*CAS 7440-28-0	Thallium	7440-28-0
*CAS 111988-49-9	Thiacloprid	111988-49-9
*CAS 153719-23-4	Thiamethoxam	153719-23-4
*CAS 79277-27-3	Thifensulfuron-methyl	79277-27-3
*CAS 28249-77-6	Thiobencarb	28249-77-6
*CAS 23564-05-8	Thiophanate-methyl	23564-05-8
*CAS 137-26-8	Thiram	137-26-8
*CAS 7440-31-5	Tin and its compounds	7440-31-5
*CAS 36756-79-3	Tiocarbazil	36756-79-3
*CAS 7440-32-6	Titanium	7440-32-6
*CAS 108-88-3	Toluene	108-88-3
*CAS 13351-73-0	Tolyltriazole	13351-73-0
*EEA 32-23-5	Total Benzo(b)fluor-anthene (CAS_205-99-2) + Benzo(k)fluor-anthene (CAS_207-08-9)	
*EEA 32-24-6	Total Benzo(g,h,i)perylene (CAS_191-24-2) + Indeno(1,2,3-cd)pyrene (CAS_193-39-5)	
*EEA 33-63-6	Total brominated diphenylethers (penta-BDE + octa-BDE + deca-BDE)	
*EEA 33-31-8	Total chrysene + triphenylene	
*EEA 33-64-7	Total cyanide	
*EEA_32-02-0	Total cyclodiene pesticides (aldrin + dieldrin + endrin + isodrin)	
*EEA 33-32-9	Total DDD (DDD, o,p' + DDD, p,p')	
*EEA_32-03-1	Total DDT (DDT, p,p' + DDT, o,p' + DDE, p,p' + DDD, p,p')	
EEA 33-40-9	Total dioxins and furans (PCDD + PCDF)	
*EEA 31-03-8	Total dissolved solids	
*EEA 33-53-4	Total Estrone (E1) + 17beta-estradiol (E2)	
*EEA 33-44-3	Total highly volatile halogenated hydrocarbons	
*EEA 33-36-3	Total hydrocarbons	
*EEA 3161-05-5	Total inorganic nitrogen	
*EEA 33-51-2	Total macrolide antibiotics (erythromycin + clarithromycin + azithromycin)	
*EEA 33-52-3	Total neonicotinoid insecticides (imidacloprid + thiacloprid + thiamethoxam + clothianidin + acetamiprid)	
*EEA_31615-01-7	Total nitrogen	
*EEA 3164-07-6	Total nitrogen to total phosphorus ratio	
*EEA_3133-06-0	Total organic carbon (TOC)	
*EEA 3161-03-3	Total organic nitrogen	
*EEA_3161-02-2	Total oxidised nitrogen	
EEA 33-62-5	Total PAHs (4 PAHs: Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene)	
EEA 33-56-7	Total PAHs (Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(ghi)perylene, Indeno(1,2,3-cd)pyrene)	
*CAS 7723-14-0	Total phosphorus	7723-14-0
*EEA 11-05-2	Total phytoplankton biomass	
*EEA 31-02-7	Total suspended solids	
*EEA 33-41-0	Total tri-, tetra- and pentachlorophenol	
*EEA 33-42-1	Total trichloroethylene + tetrachloroethylene	
*EEA_33-43-2	Total trihalomethanes	

*CAS 8001-35-2	Toxaphene	8001-35-2
*CAS 87820-88-0	Tralkoxydim	87820-88-0
*CAS 156-60-5	trans-1,2-dichloroethene	156-60-5
*CAS 10061-02-6	trans-1,3-dichloropropene	10061-02-6
*CAS 39765-80-5	trans-Nonachlor	39765-80-5
*CAS 2303-17-5	Tri-allate	2303-17-5
*CAS 43121-43-3	Triadimefon	43121-43-3
*CAS 55219-65-3	Triadimenol	55219-65-3
*CAS 82097-50-5	Triasulfuron	82097-50-5
*CAS 24017-47-8	Triazophos	24017-47-8
*CAS 36643-28-4	Tributyltin-cation	36643-28-4
*CAS 76-03-9	Trichloroacetic acid	76-03-9
*CAS 12002-48-1	Trichlorobenzenes (all isomers)	12002-48-1
*CAS 79-01-6	Trichloroethylene	79-01-6
*CAS 75-69-4	Trichlorofluoromethane	75-69-4
*CAS 67-66-3	Trichloromethane	67-66-3
*CAS 1321-65-9	Trichloronaphthalene	1321-65-9
*CAS 55335-06-3	Triclopyr	55335-06-3
*CAS 3380-34-5	Triclosan	3380-34-5
*CAS 1912-26-1	Trietazine	1912-26-1
*CAS 1582-09-8	Trifluralin	1582-09-8
*CAS 126535-15-7	Triflusulfuron-methyl	126535-15-7
*CAS 738-70-5	Trimethoprim	738-70-5
*CAS 603-35-0	Triphenyl phosphine	603-35-0
*EEA 33-61-4	Triphenyltin and compounds	
*CAS 10028-17-8	Tritium	10028-17-8
*CAS 7440-33-7	Tungsten and its compounds	7440-33-7
*EEA 3112-01-4	Turbidity	
*CAS 7440-61-1	Uranium	7440-61-1
*CAS 7440-62-2	Vanadium and its compounds	7440-62-2
*CAS 50471-44-8	Vinclozolin	50471-44-8
*CAS 51000-52-3	Vinyl neodecanoate	51000-52-3
*EEA 33-45-4	Volatile halogenated hydrocarbons (VHH)	
*EEA 33-46-5	Volatile organic halogens (VOX)	
*EEA 3121-01-5	Water temperature	
*CAS 1330-20-7	Xylene	1330-20-7
*CAS 7440-66-6	Zinc and its compounds	7440-66-6
*CAS 137-30-4	Ziram	137-30-4

\* non-mandatory under IMAP Guidance Factsheets

**Table 4:** DSs & DDs **Module PSF1** (Levels of contaminants in seafood) for CI 20: **List of species**

ID Species	Label
Alosa spp	125715
Argyrosomus regius	127007
Aristeus antennatus	107083
Auxis rokei	127015
Boops boops	127047
Brevoortia pectinata	275501
Dicentrarchus labrax	126975
Engraulis encrasiculus	126426
Epinephelus spp	126068
Loligo vulgaris	140271

ID Species	Label
<i>Lophius piscatorius</i>	126555
<i>Merluccius merluccius</i>	126484
<i>Micromesistius poutassou</i>	126439
<i>Mugil cephalus</i>	126983
<i>Mullus barbatus</i>	126985
<i>Mullus spp.</i>	126034
<i>Mullus surmuletus</i>	126986
<i>Mytilus galloprovincialis</i>	140481
<i>Nephrops norvegicus</i>	107254
<i>Octopus vulgaris</i>	140605
<i>Pagellus bogaraveo</i>	127059
<i>Pagellus erythrinus</i>	127060
<i>Pagrus pagrus</i>	127063
<i>Parapenaeus longirostris</i>	107109
<i>Penaeus kerathurus</i>	246388
<i>Ruditapes decussates</i>	231749
<i>Ruditapes philippinarum</i>	231750
<i>Sarda sarda</i>	127021
<i>Sardina pilchardus</i>	126421
<i>Sardinella aurita</i>	126422
<i>Sardinella spp</i>	125721
<i>Scomber japonicus</i>	127022
<i>Scomber scombrus</i>	127023
<i>Scomber spp</i>	126063
<i>Scomberesox saurus</i>	126392
<i>Sepia officinalis</i>	141444
<i>Sparus aurata</i>	151523
<i>Sphyraena spp</i>	126084
<i>Spicara spp</i>	125949
<i>Squilla mantis</i>	136137
<i>Thunnus thynnus</i>	127029
<i>Trachurus mediterraneus</i>	126820
<i>Trachurus spp</i>	125946
<i>Trachurus trachurus</i>	126822
<i>Xiphias gladius</i>	127094

**Table 5:** DSs & DDs **Module PSF1** (Levels of contaminants in seafood) for CI 20: **List of GSA**

Value	Description
1	Northern Alboran Sea
2	Alboran Island
3	Southern Alboran Sea
4	Algeria
5	Balearic Islands
6	Northern Spain
7	Gulf of Lion
8	Corsica

Value	Description
9	Ligurian Sea and Northern Tyrrhenian Sea
10	Southern and Central Tyrrhenian Sea
11.1	Western Sardinia
11.2	Eastern Sardinia
12	Northern Tunisia
13	Gulf of Hammamet
14	Gulf of Gabes
15	Malta
16	Southern Sicily
17	Northern Adriatic Sea
18	Southern Adriatic Sea
19	Western Ionian Sea
20	Eastern Ionian Sea
21	Southern Ionian Sea
22	Aegean Sea
23	Crete
24	Northern Levant Sea
25	Cyprus
26	Southern Levant Sea
27	Eastern Levant Sea
28	Marmara Sea
29	Black Sea
30	Azov Sea

**Annex I:**

**Elements proposed for preparation of Data Standards and Data Dictionaries for  
IMAP Common Indicator 20**

The elements of Data Standards (DS) and Data Dictionaries (DDs) specific for CI 20 are provided in the tabular format as presented here-below for receiving the suggestions of present Meeting and guiding further work of INFO/RAC and MEDPOL. They are based on the concentration limits for the contaminants regulated in the EU, as defined in EU Commission Regulations (EC) No 1881/2006<sup>3</sup>, (EC) No 835/2011<sup>4</sup> and EC No 1259/2011<sup>5</sup>.

#### **Maximum Levels of Heavy Metals – (EC) Regulation 1881/2006**

	Foodstuffs	Maximum levels µg kg <sup>-1</sup> wet weight		
		Cadmium	Lead	Mercury
1	Muscle meat of fish <sup>(1)</sup>	0.050 Excluding species listed in 2 and 3	0.30	0.50 Excluding species listed in 4
2	Muscle meat of the following fish <sup>(1)</sup> anchovy ( <i>Engraulis species</i> ) bonito ( <i>Sarda sarda</i> ) common two-banded seabream ( <i>Diplodus vulgaris</i> ) eel ( <i>Anguilla anguilla</i> ) grey mullet ( <i>Mugil labrosus labrosus</i> ) horse mackerel or scad ( <i>Trachurus species</i> ) louvar or luvar ( <i>Luvarus imperialis</i> ) sardine ( <i>Sardina pilchardus</i> ) sardinops ( <i>Sardinops species</i> ) tuna ( <i>Thunnus species</i> , <i>Euthynnus species</i> , <i>Katsuwonus pelamis</i> ) wedge sole ( <i>Dicologoglossa cuneata</i> )	0.10		
3	Muscle meat of swordfish ( <i>Xiphias gladius</i> ) <sup>(1)</sup>	0.30		
4	Muscle meat of the following fish: anglerfish ( <i>Lophius species</i> ) atlantic catfish ( <i>Anarhichas lupus</i> ) bonito ( <i>Sarda sarda</i> ) eel ( <i>Anguilla species</i> ) emperor, orange roughy, rosy soldierfish ( <i>Hoplostethus species</i> ) grenadier ( <i>Coryphaenoides rupestris</i> )			1.0

<sup>3</sup> Commission Regulation (EC) No 1881/2006, setting maximum levels for certain contaminants in seafood

<sup>4</sup> Commission Regulation (EC) No 835/2011 amending Regulation (EC) No 1881/2006 as regards maximum levels for polycyclic aromatic hydrocarbons in foodstuffs;

<sup>5</sup> Commission Regulation (EC) No 1259/2011, amending Regulation (EC) No 1881/2006 as regards maximum levels for dioxins, dioxin-like PCBs and non-dioxin-like PCBs in foodstuffs

	halibut ( <i>Hippoglossus hippoglossus</i> ) marlin ( <i>Makaira species</i> ) megrin ( <i>Lepidorhombus species</i> ) mullet ( <i>Mullus species</i> ) pike ( <i>Esox lucius</i> ) plain bonito ( <i>Orcynopsis unicolor</i> ) poor cod ( <i>Tricopterus minutus</i> ) portuguese dogfish ( <i>Centroscymnus coelolepis</i> ) rays ( <i>Raja species</i> ) redfish ( <i>Sebastes marinus</i> , <i>S. mentella</i> , <i>S. viviparus</i> ) sail fish ( <i>Istiophorus platypterus</i> ) scabbard fish ( <i>Lepidopus caudatus</i> , <i>Aphanopus carbo</i> ) seabream, pandora ( <i>Pagellus species</i> ) shark (all species) snake mackerel or butterfish ( <i>Lepidocybium flavobrunneum</i> , <i>Ruvettus pretiosus</i> , <i>Gempylus serpens</i> ) sturgeon ( <i>Acipenser species</i> ) swordfish ( <i>Xiphias gladius</i> ) tuna ( <i>Thunnus species</i> , <i>Euthynnus species</i> , <i>Katsuwonus pelamis</i> )			
5	Crustaceans, excluding brown meat of crab and excluding head and thorax meat of lobster and similar large crustaceans	0.50	0.50	0.50
6	Bivalve molluscs	1.0	1.5	
7	Cephalopods (without viscera)	1.0	1.0	

(1) Exclusion of liver. Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish

**Maximum Levels of Benzo(a)pyrene and sum of four PAHs (benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene) Regulation No 835/2011 amending Regulation (EC) 1881/2006**

Foodstuffs	Maximum levels ( $\mu\text{g kg}^{-1}$ )	
	Benzo(a)pyrene	Sum of benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene *
Bivalve molluscs (fresh, chilled or frozen)	5.0	30.0

\* Lower bound concentrations are calculated on the assumption that all the values of the four substances below the limit of quantification are zero

**Maximum Levels of Dioxins and PCBs - Regulation (EC) 1259/2011 amending Regulation (EC) 1881/2006**

Foodstuffs	Maximum levels		
	Sum of dioxins (WHO-PCDD/F-TEQ) <sup>(1)</sup>	Sum of dioxins and dioxin-like PCBs (WHO-PCDD/F-PCB-TEQ) <sup>(1)</sup>	Sum of PCB28, PCB52, PCB101, PCB138, PCB153 and PCB180 (ICES 6)
Muscle meat of fish and fishery products and products thereof <sup>(2)</sup> with the exemption of: <ul style="list-style-type: none"> <li>• wild caught eel</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> 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.	3.5 $\mu\text{g g}^{-1}$ wet weight	6.5 $\mu\text{g g}^{-1}$ wet weight	75 $\mu\text{g g}^{-1}$ wet weight

- (1) Dioxins (sum of polychlorinated dibenzo-para-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs), expressed as World Health Organisation (WHO) toxic equivalent using the WHO-toxic equivalency factors (WHO-TEFs)) and sum of dioxins and dioxin-like PCBs (sum of PCDDs, PCDFs and polychlorinated biphenyls (PCBs), expressed as WHO toxic equivalent using the WHO-TEFs). WHO-TEFs for human risk assessment based on the conclusions of the World Health Organization (WHO) (For TEF values see note 31, (EC) Regulation 1259/2011 – Annex 1.1.9.).
- (2) Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish.