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**INCLUSION OF CHEMICALS IN THE INTERIM PRIOR INFORMED CONSENT
PROCEDURE - SUPPORTING DOCUMENTATION**

Tributyltin Compounds

Note from the Secretariat

1. Annexed to this note is the documentation provided by Japan in support of their notification of final regulatory action on tributyltin compounds.

* UNEP/FAO/PIC/ICRC.4/1

List of Documentation Annexed to UNEP/FAO/PIC/ICRC.4/17/Add.1

Supporting documentation on tributyltin compounds from Japan:

- Chemicals in the Environment, Report on Environmental Survey and Wildlife Monitoring of Chemicals in F.Y. 1998, Environment Agency Japan, September 2000

CHEMICALS IN THE ENVIRONMENT

Report on Environmental Survey
and Wildlife Monitoring of Chemicals
in F. Y. 1998

September 2000

Environmental Health and Safety Division

Environment Agency
JAPAN

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Chapter 6. Summary of the Survey Results for Organotin Compounds (Fiscal Year 1998)

1. Purpose of the survey

As a result of the General Inspection Survey of Chemical Substances on Environmental Safety, environmental pollution all over Japan caused by organotin compounds became apparent, so environmental pollution has been monitored in wildlife (fishes and shellfishes and birds) in wildlife monitoring since the fiscal year 1985 for tributyltin compounds and the fiscal year 1989 for triphenyltin compounds. Taking the results of this survey in consideration, 13 tributyltin compounds and 7 triphenyltin compounds were designated as Designated Chemical Substances based on the Chemical Substances Control Law between April, 1988 and March, 1989. Accordingly, surveys for bottom sediments and water have been conducted since the fiscal year 1988, without interruption in the Study and Survey of Designated Chemical Substances etc.

In 1990, bis(tributyltin) oxide (TBTO), which is a tributyltin compound among organotin compounds, was designated as a Class 1 Specified Chemical Substance based on the Chemical Substances Control Law, and the former Designated Chemical Substances of 7 triphenyltin compounds and 13 tributyltin compounds excluding TBTO were designated as Class 2 Specified Chemical Substances based on the said Law.

2. Summary of the survey

(1) Outline of the fiscal year 1998 Wildlife Monitoring Results (Concerning Organotin Compounds)

① Particulars leading to the survey

Among organotin compounds, tributyltin compounds were detected with relatively high concentration in the fiscal year 1984 Detailed Environmental Survey in bottom sediments and fishes in wide areas, so it became subject to wildlife monitoring since the fiscal year 1985.

Triphenyltin compounds were also detected in wide areas in the fiscal year 1988 chemical substances environmental survey. Some of the detected concentration levels in bottom sediments were high in some points (inside ports). A high detected concentration level was observed in the mouths of rivers and inner bays in fishes, so wildlife monitoring was initiated for triphenyltin compounds since the fiscal year 1989.

② Survey results (Table 6-1~6-4)

Tributyltin compounds were detected in fishes and shellfishes and triphenyltin compounds were detected in fishes only.

(2) Outline of the fiscal year 1998 Study and Survey of Designated Chemical Substances etc.
(concerning organotin compounds)

① Particulars leading to the survey

The Environmental Persistence Survey in the Study and Survey of Designated Chemical Substances etc. was initiated in the fiscal year 1988 for the purpose of grasping the situation of persistence in the general environment of Designated Chemical Substances and Class 2 Specified Chemical Substances based on the Chemical Substances Control Law. Tributyltin compounds and triphenyltin compounds have been subject to this survey since the fiscal year 1988 and 1989, respectively, for the media of water and bottom sediments.

② Survey Results (Table 6-5~6-8)

Tributyltin compounds and triphenyltin compounds were detected in water and bottom sediments.

3. Evaluation of survey results

(1) Tributyltin compounds

Tributyltin compounds persist widely in the environment and their pollution levels remain largely at the same level in bottom sediments. And in wildlife and water the pollution levels remain largely at the same level or tend to be improved.

Although the pollution level at present does not seem to be at a harmful level, it is necessary to continue to promote measures against environmental pollution and to monitor the situation of environmental pollution. Furthermore, since the substances are pointed out to be those suspected to have endocrine disrupting effects, it is also necessary to endeavor to collect the toxicological knowledge including other related information.

(2) Triphenyltin compounds

Triphenyltin compounds persist widely in the environment, but the persistence in water shows a tendency to be improved and that in wildlife and bottom sediments remains at the same level. If the present production situation* is considered, the pollution is expected to be improved further. But it is necessary to continue to promote measures against environmental pollution and to monitor the situation of environmental pollution. Furthermore, since the substances are pointed out to be those suspected to have endocrine disrupting effects, it is also necessary to endeavor to collect the toxicological knowledge including other related information.

* : The situation that there is almost no domestic production/usage intended for use in open systems.

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Table (I-1) Results of Wildlife Monitoring (Tributyltin Compound) (Fiscal Year 1998)

(Unit: $\mu\text{g/g}$ - wet(ppm))

Species	Sampling spot	Samples No.					Max.	Min.	Mean	Median	Detected freq.
		1	2	3	4	5					
Chum salmon	Offshore of Kushiro, Hokkaido	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Angry rockfish	Offshore of Kushiro, Hokkaido	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Greenling	Yamada Bay	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Pacific saury	Offshore of Joban	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Cod	Sea of Japan (Offshore of Tohoku)	tr(0.005)	tr(0.003)	tr(0.004)	tr(0.002)	tr(0.007)	tr	tr	tr	0/5	
Sea bass	Tokyo Bay	tr(0.05)	0.06	tr(0.05)	tr(0.02)	tr(0.04)	0.06	tr	tr	1/5	
Sea bass	Osaka Bay	0.07	0.06	0.06	0.03	0.09	0.09	0.06	0.076	0.08	5/5
Sea bass	Seto Inland Sea	0.07	tr(0.03)	0.07	0.03	0.09	0.09	tr	-	0.07	4/5
Sea bass	Offshore of Sanin	0.08	0.05	tr(0.047)	tr(0.049)	0.08	0.08	tr	-	0.05	3/5
Sea bass	Mouth of Riv. Shimanto	tr(0.004)	tr(0.018)	tr(0.014)	tr(0.008)	tr(0.009)	tr	tr	-	tr	0/5
Sea bass	Surrounding of Shuugen Island	tr(0.030)	0.05	tr(0.030)	tr(0.020)	tr(0.005)	0.05	tr	-	tr	1/5
Sea bass	West Coast of Satsuma Peninsula	tr(0.03)	0.06	tr(0.04)	0.03	0.06	0.08	tr	-	0.05	3/5
Black porgy	Nakagusuku Bay, Okinawa Pref	tr(0.02)	nd	nd	tr(0.01)	nd	tr	nd	-	nd	0/5
Dace	Lake Biwa	nd	nd	nd	nd	nd	nd	nd	-	nd	0/5
Fishes							0.09	nd	-	tr	17/70
Common mussel	Yamada Bay	tr(0.02)	tr(0.03)	tr(0.02)	tr(0.02)	tr(0.03)	tr	tr	-	tr	0/5
Common mussel	Miura Peninsula	tr(0.037)	tr(0.035)	tr(0.033)	tr(0.044)	tr(0.048)	tr	tr	-	tr	0/5
Common mussel	Noto Peninsula	nd	nd	nd	nd	nd	nd	nd	-	nd	0/5
Common mussel	Ise Bay	tr(0.002)	tr(0.008)	tr(0.003)	tr(0.003)	tr(0.004)	tr	tr	-	tr	0/5
Common mussel	Shimane Peninsula	0.08	0.08	0.10	0.11	0.11	0.11	0.08	0.096	0.10	5/5
Asiatic mussel	Naruto	0.06	0.10	0.09	0.07	0.07	0.10	0.06	0.078	0.07	5/5
Shellfishes							0.11	nd	-	tr	10/30
Gray starling	Suburbs of Morioka City	nd	nd	nd	nd	nd	nd	nd	-	nd	0/5
Black-railed gull	Kabushima, Aomori Pref	nd	nd	nd	nd	nd	nd	nd	-	nd	0/5
Birds							nd	nd	-	nd	0/10
Total (Total Samples 110)							0.11	-	-	tr	27/110

(Note) 1. The values are the equivalent values to TETO.

2. Conduct of the unified detection limit is treated at $0.05 \mu\text{g/g}$ - wet.

3. nd denotes no detection and tr denotes that the detected values are below the unified detection limit.

Table 6-2 Results of Wildlife Monitoring (Triphenyltin Compound) (Fiscal Year1998)

(Unit : $\mu\text{g/g} \cdot \text{wet}(\text{ppm})$)

Species	Sampling spot	Samples No.					Max.	Min.	Mean	Median	Detected freq.
		1	2	3	4	5					
Chum salmon	Offshore of Kushiro, Hokkaido	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Angry rockfish	Offshore of Kushiro, Hokkaido	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Greenling	Yamada Bay	nd	nd	nd	0.02	nd	0.02	nd	nd	1/5	
Pacific saury	Offshore of Joban	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Cod	Sea of Japan (Offshore of Tohoku)	tr(0.005)	tr(0.005)	tr(0.013)	tr(1.009)	0.02	0.02	tr	tr	1/5	
Sea bass	Tokyo Bay	0.03	tr(0.01)	tr(0.01)	tr(0.01)	tr(0.01)	0.03	tr	tr	1/5	
Sea bass	Osaka Bay	0.03	0.02	0.05	0.02	0.03	0.05	0.02	0.030	5/5	
Sea bass	Sato Island Sea	0.04	0.02	0.04	0.04	0.04	0.04	0.02	0.035	5/5	
Sea bass	Offshore of Sanin	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Sea bass	Mouth of Riv. Shimonoto	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Sea bass	Surrounding of Shuugen Island	tr(0.005)	nd	nd	nd	nd	tr	nd	nd	0/5	
Sea bass	West Coast of Satsuma Peninsula	nd	tr(0.01)	tr(0.01)	0.02	nd	0.02	nd	tr	1/5	
Black porizy	Nakagusuku Bay, Okinawa Pref.	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Dace	Lake Biwa	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Fishes							0.05	nd	-	nd	14/70
Common mussel	Yamada Bay	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Common mussel	Miura Peninsula	tr(0.003)	tr(0.004)	tr(0.006)	tr(1.005)	tr(0.005)	tr	tr	tr	0/5	
Common mussel	Neto Peninsula	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Common mussel	Ice Bay	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Common mussel	Shimane Peninsula	tr(0.006)	tr(0.008)	tr(0.008)	tr(0.020)	tr(0.009)	tr	tr	tr	0/5	
Asiatic mussel	Naruto	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Shellfishes							tr	nd	-	nd	0/30
Gray starling	Suburbs of Morioka City	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Black-tailed gull	Kabushima, Aomori Pref.	nd	nd	nd	nd	nd	nd	nd	nd	0/5	
Birds							nd	nd	-	nd	0/10
Total(Total Samples 110)							0.05	nd	-	nd	14/110

(Note) 1. The values are the equivalent values to TPTCl.

2. Conduct of the unified detection limit is treated at $0.02 \mu\text{g/g} \cdot \text{wet}$.

3. nd denotes no detection and tr denotes that the detected values are below the unified detection limit.

Table 6-4 Results of Wildlife Monitoring of Triphenyltin Compounds (Fiscal Year 1989 - 1998)

(D.S.=Detected samples)

Species	Sampling spots	1989		1990		1991		1992		1993		1994		1995		1996		1997		1998		
		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	D.S.
Common murrelet	Offshore of Kushiro, Hokkaido	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0
	Offshore of Nemuro, Ishikari	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Common murrelet	Offshore of Nemuro, Ishikari	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4
	Offshore of Nemuro, Ishikari	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0
Common murrelet	Offshore of Nemuro, Ishikari	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	Offshore of Nemuro, Ishikari	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4
Common murrelet	Offshore of Nemuro, Ishikari	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	Offshore of Nemuro, Ishikari	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Common murrelet	Offshore of Nemuro, Ishikari	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	Offshore of Nemuro, Ishikari	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Common murrelet	Offshore of Nemuro, Ishikari	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	Offshore of Nemuro, Ishikari	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Common murrelet	Offshore of Nemuro, Ishikari	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	Offshore of Nemuro, Ishikari	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0

(Note) 1. The values are the equivalent values to TPYCL. The unified detection limit is 0.02 mg/g wet (ppm).
 2. Detected samples denote the numbers of detected samples in each sampling spot.
 3. nd denotes no detection and tr denotes that the detected values are below the unified detection limit.

4. Sea bass in surrounding of Shigeno Island and common murrelet in Shigeno Peninsula have been monitored since fiscal year 1990 and 1991, respectively. Monitoring of Black-tailed gull in Tokyo Bay was completed in fiscal year 1998. Monitoring of Black-tailed gull in Kabusshima, Aomori Pref. was started in fiscal year 1995. Sea bass in Sato Inland Sea could not be caught in fiscal year 1990 and 1991.
 Monitoring of Amgyr rockfish in offshore of Nemuro, Hokkaido was completed in fiscal year 1997. Monitoring of Amgyr rockfish in offshore of Nemuro, Hokkaido was started in fiscal year 1997.

Table 6-7 Results of the Survey of Tributyltin Compound in Bottom Sediments (Based on the Study and Survey of Designated Chemical Substances, etc. in Fiscal Year 1990-1998)

Sampling spot	1999			1997			1996			1995			1994			1993			1992			1991			1990			
	mean	max	min	mean	max	min	mean	max	min	mean	max	min	mean	max	min	mean	max	min	mean	max	min	mean	max	min	mean	max	min	
Municipal Fishland	0.0031	0.0031	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Municipal Ryuzo	0.0011	0.0011	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Beidai Bay	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Laos Bay	0.0009	0.0009	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Shimoda Port	0.0010	0.0010	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Wakkanai Bay	0.0003	0.0003	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
South of Ryuzo	0.0005	0.0005	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
North of Ryuzo	0.0005	0.0005	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
South of Ryuzo	0.0005	0.0005	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
South of Ryuzo	0.0005	0.0005	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
South of Ryuzo	0.0005	0.0005	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
South of Ryuzo	0.0005	0.0005	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
South of Ryuzo	0.0005	0.0005	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
South of Ryuzo	0.0005	0.0005	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
South of Ryuzo	0.0005	0.0005	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
South of Ryuzo	0.0005	0.0005	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

(Notes) 1. The values are the equivalent values to TBT.
 2. nd denotes no detection. ** denotes not measured and blank column denotes not measured.
 3. The geometric mean is calculated on values that are the half of the detection limit.

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Table 6-8 Results of the Survey of Triphenyltin Compound in Bottom Sediments (Based on the Study and Survey of Designated Chemical Substances, etc. in Fiscal Year 1990--1998)

Sampling sites	1990		1991		1992		1993		1994		1995		1996		1997		1998	
	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2
Month of Shinbashi (North of Rikuzenmachi)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Shikusa Bay	0.004	0.029	0.028	0.001	0.002	0.002	0.005	0.002	0.008	0.002	0.009	0.009	0.009	0.001	0.008	0.001	0.001	0.001
Utsunomiya Bay	0.008	0.002	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011
Month of Shinjuku	-	0.004	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Month of Shinjuku (South of Rikuzenmachi)	0.019	0.008	0.004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Month of Rikuzenmachi	0.012	0.008	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011
Month of Shinjuku (North of Rikuzenmachi)	0.021	0.019	0.008	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Month of Shinjuku (South of Rikuzenmachi)	0.003	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Month of Shinjuku (North of Rikuzenmachi)	0.001	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Month of Shinjuku (South of Rikuzenmachi)	0.001	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Month of Shinjuku (North of Rikuzenmachi)	0.001	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Month of Shinjuku (South of Rikuzenmachi)	0.001	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Month of Shinjuku (North of Rikuzenmachi)	0.001	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Month of Shinjuku (South of Rikuzenmachi)	0.001	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Month of Shinjuku (North of Rikuzenmachi)	0.001	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Month of Shinjuku (South of Rikuzenmachi)	0.001	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Month of Shinjuku (North of Rikuzenmachi)	0.001	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Month of Shinjuku (South of Rikuzenmachi)	0.001	0.011	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001

(Unit: ug/g dw (ppb))

1. The values are the equivalent values to TPTCs.
 2. nd denotes no detection. "-" denotes not measured and blank column denotes not measured.
 3. The geometric mean is calculated on condition that nd is the half of the detection limit.