Kingdom of Cambodia
Nation Religion King
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Ministry of Environment
No 387 Br.K.B.Sth

Prakas on the Launch of Standards of the Quantity of Toxins or Hazardous Substances Allowed to be Disposed

The Minister of Ministry of Environment

- Having seen the Constitution of the Kingdom of Cambodia
- Having seen Royal Decree NS/RKT/0913/903, dated 24 September, 2013, on the appointment of the Royal Government of the Kingdom of Cambodia
- Having seen Royal Kram 02/NS/94 dated 20 July, 1994 promulgating Law on the Organization and Functioning of the Council of Ministers
- Having seen Royal Kram NS/RKM/0196/21 dated 24 January, 1996 promulgating Law on the Establishment of the Ministry of Environment
- Having seen Royal Kram NS/RKM/0606/013 dated 16 June, 2006 on Cambodia Ratification in Stockholm Convention on Persistent Organic Pollutants
- Having seen Royal Kram NS/RK/0606/014 dated 16 June, 2006 on Cambodia Ratification in Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
- Having seen Royal Kram NS/RKM/1296/36 dated 24 December, 1996 promulgating Law on Environmental Protection and Natural Resources Management
- Having seen Royal Degree NS/RKT/0515/403 dated 09 May 2015 on the Organization and Functioning of National Council for Sustainable Development
- Having seen Sub-decree 55 ANKr.BK dated 04 May, 2015 on the Organization and Functioning of Ministry of Environment
- Having seen Sub-decree 27 OrNKr/BK dated 06 April, 1999 on Water Pollution Control
- Having seen Sub-decree 36 OrNKr/BK dated 27 April, 1999 on Solid Waste Management
- Having seen Sub-decree 59 OrNKr/BK dated 18 May, 2015 on the Organization and Functioning of General Secretariat of National Council for Sustainable Development
- Pursuant to needs required

Hereby Decides

Article 1:

It is decided to launch standards of the quantity of toxic chemicals or hazardous substances contained in hazardous waste which is allowed to be disposed in sanitary landfills and standards of the quantity of toxic chemicals or hazardous substances allowed in soils as stipulated in the table of annex 1 and annex 2 of this prakas.

Article 2:

Every disposal of toxic chemicals, hazardous substances or hazardous waste shall be proposed to Ministry of Environment.

Article 3:

Any provision which is contrast to this prakas shall be nullified.

Article 4:

The general secretary of General Secretariat of National Council for Sustainable Development, the general director of General Department of Administration and Finance, the general director of General Department of Environmental Education and Information, the general director of General Department of Environmental Protection, the general director of General Department of Administration for Natural Protection and Conservation, the inspector of Inspectorate, the director of Department of Hazardous Substances Management, Department of Internal Audit, Cabinets, all directors of any units supervised by Ministry of Environment shall be responsible for implementing this prakas in compliance with each of their duties since the date on which this praskas is signed.

Phnom Penh 30 September, 2015

The Minister
SAY Samal

Annex 1

Standards of the quantity of toxic chemicals or hazardous substances contained in hazardous waste which is allowed to be disposed in sanitary landfills

No	Chemical Name	Unit (mg/kg of dry waste)	Maximum Condensation of Toxic Chemicals in Waste
1	Arsenic and its compounds (As)	mg/kg	< 40
2	Cadmium and its compounds (Cd)	mg/kg	< 5.0
3	Chromium and its compounds $(Cr)^{+6}$	mg/kg	< 380
4	Copper and its compounds (Cu)	mg/kg	< 190
5	Lead and its compounds (Pb)	mg/kg	< 420
6	Mercury and its compounds (Hg)	mg/kg	< 10
7	Molybdenum and its compounds (Mo)	mg/kg	< 57
8	Nickel and its compounds (Ni)	mg/kg	< 75
9	Selenium and its compounds (Se)	mg/kg	< 100
10	Zinc and its compounds (Zn)	mg/kg	< 500
11	and its compounds (CN)	mg/kg	< 50
12	Fluorine and its compounds (F)	mg/kg	< 400
13	Manganese and its compounds (Mn)	mg/kg	< 500
14	Benzene (C_6H_6)	mg/kg	< 1.0
15	Toluene ($C_6H_5CH_3$)	mg/kg	< 130
16	Ethyl Benzene ($C_6H_5CH_2CH_3$)	mg/kg	< 50
17	Xylene ($C_6H_4C_2H_6$)	mg/kg	< 25
18	Phenol (C_6H_6O)	mg/kg	< 40
19	Cresol ($CH_3C_6H_4OH$)	mg/kg	< 5.0
20	Styrene ($C_6H_5CH=CH_2$)	mg/kg	< 100
21	Polyhydroxyalkanoates (All of 10 kinds of PHA)	mg/kg	< 40
22	Naphthalene ($C_{10}H_8$)	mg/kg	< 40
23	Phenanthrene ($C_{14}H_{10}$)	mg/kg	< 40
24	Anthracene ($C_{14}H_{10}$)	mg/kg	< 40
25	Fluoranthene ($C_{16}H_{10}$)	mg/kg	< 40
26	Benz(a)anthracene ($C_{18}H_{12}$)	mg/kg	< 40
27	Chrysene ($C_{18}H_{12}$)	mg/kg	< 40
28	Benzo(k)fluoranthene ($C_{20}H_{12}$)	mg/kg	< 40
29	Benzopyrene ($C_{20}H_{12}$)	mg/kg	< 40
30	Benzo(ghi)pyrene ($C_{22}H_{12}$)	mg/kg	< 40
31	Indeno(1 2 3-cd)pyrene ($C_{22}H_{12}$)	mg/kg	< 40
32	Dichloromethane (CH_2Cl_2)	mg/kg	< 10
34	Trichloromethane ($CHCl_3$)	mg/kg	< 10
35	Carbon Tetrachloride (CCl_4)	mg/kg	< 1.0
36	Tetracholoethylene ($Cl_2C=CCl_2$)	mg/kg	< 60
37	1,1-dichloroethane ($C_2H_4Cl_2$)	mg/kg	< 40
38	1,2-dichloroethane ($ClCH_2$-CH_2Cl)	mg/kg	< 15
39	Vinyl Chloride (C_2H_3Cl)	mg/kg	< 4.0
40	1,1,1-trichloroethane (CH_3CCl_3)	mg/kg	< 0.1
41	1,1,2-dichloroethane ($C_2H_3Cl_3$)	mg/kg	< 15
42	Chlorobenzene (C_6H_5Cl)	mg/kg	< 10

43	Chlorophenol (C_6H_5ClO)	mg/kg	< 30
44	Chloronaphthalene ($C_{10}H_7Cl$)	mg/kg	< 10
45	Polychlorobiphenyls (PCBs)	mg/kg	< 1.0
46	Dioxins and Fluorans(TCDDs/Fs)	mg/kg	< 1.0
47	Dichloropropane ($CH_3CHClCH_2Cl$)	mg/kg	< 2.0
48	dichlorodiphenyltrichloroethane (DDT/DDD/DDE)	mg/kg	< 4.0
49	Aldrin ($C_{12}H_8Cl_6$)	mg/kg	< 4.0
50	Dieltrin ($C_{12}H_8Cl_6O$)	mg/kg	< 4.0
51	Endrin ($C_{12}H_8Cl_6O$)	mg/kg	< 4.0
52	Hexachlorocyclohexane (CHC-compounds)	mg/kg	< 2.0
53	Carbaryl ($C_{12}H_{11}NO_2$)	mg/kg	< 5.0
54	Carbofuran ($C_{12}H_{15}NO_3$)	mg/kg	< 2.0
55	Atrazine ($C_8H_{14}ClN_5$)	mg/kg	< 6.0
56	Chlordecone ($C_{10}Cl_{10}O$)	mg/kg	< 4.0
57	Heptachlor ($C_{10}H_5Cl_7$)	mg/kg	< 4.0
58	Heptachlor Epoxide ($C_{10}H_5Cl_7$)	mg/kg	< 4.0
59	Endosulfan ($C_9H_6Cl_6O_3S$)	mg/kg	< 4.0
60	Chlordecone ($C_{10}Cl_{10}O$)	mg/kg	< 4.0
61	Organic tin and it compounds (C-Sn)	mg/kg	< 2.5
62	Natural oil (Mineral oil)	mg/kg	< 5000
63	Pyridine (C_5H_5N)	mg/kg	< 0.5
64	Tetrahydrofuran (C_4H_8O)	mg/kg	< 2.0
65	Monoethylene glycol ($C_2H_6O_2$)	mg/kg	< 100
66	Diethylene glycol ($C_4H_{10}O_3$)	mg/kg	< 270
67	Acrylonitrile (C_3H_3N)	mg/kg	< 0.1
68	Formaldehyde (CH_2O)	mg/kg	< 0.1
69	Methanol (CH_3OH)	mg/kg	< 30
70	Butanol (C_4H_9OH)	mg/kg	< 30
71	1,2 butyl acetate ($C_6H_{12}O_2$)	mg/kg	< 200
72	Tribromoform ($CHBr_3$)	mg/kg	< 75
73	Ethyl acetate ($C_4H_8O_2$)	mg/kg	< 75
74	Isopropyl alcohol (C_3H_7OH)	mg/kg	< 220

Note:

Every disposal of chemical waste or hazardous substances as stipulated in the above annexes out of sites determined by the ministry and competent institutions shall be absolutely prohibited and deemed as the infringement of law.

Annex 2

Standards of the quantity of toxic chemicals or hazardous substances allowed in soils

No	Chemical Name	Unit (mg/kg of dry waste)	Maximum Condensation of Toxic Chemicals Allowed in Soils
1	Arsenic and its compounds (As)	mg/kg	< 15
2	Barium and it compounds (Ba)	mg/kg	< 160
3	Cadmium and its compounds (Cd)	mg/kg	< 0.8
4	Chromium and its compounds $(Cr)^{+6}$	mg/kg	< 100
5	Copper and its compounds (Cu)	mg/kg	< 125
6	Lead and its compounds (Pb)	mg/kg	< 85
7	Mercury and its compounds (Hg)	mg/kg	< 0.3
8	Molybdenum and its compounds (Mo)	mg/kg	< 3.0
9	Nickel and its compounds (Ni)	mg/kg	< 35
10	Selenium and its compounds (Se)	mg/kg	< 0.7
11	Zinc and its compounds (Zn)	mg/kg	< 140
12	Manganese and its compounds (Mn)	mg/kg	< 300
13	Cobalt (Co)	mg/kg	< 9
14	Antimony (Sb)	mg/kg	< 3
15	Beryllium (Be)	mg/kg	< 1.1
16	Silver (Ag)	mg/kg	< 1.1
17	Thorium (Th)	mg/kg	< 1
18	Vanadium (V)	mg/kg	< 42
19	Free cyanide(CN)	mg/kg	< 1
20	Bromine (Br)	mg/kg	< 20
21	Fluorine and its compounds (F)	mg/kg	< 400
22	Benzene (C_6H_6)	mg/kg	< 0.01
23	Toluene ($C_6H_5CH_3$)	mg/kg	< 0.01
24	Ethyl Benzene ($C_6H_5CH_2CH_3$)	mg/kg	< 0.03
25	Xylene ($C_6H_4C_2H_6$)	mg/kg	< 0.1
26	Phenol (C_6H_6O)	mg/kg	< 0.05
27	Styrene ($C_6H_5CH=CH_2$)	mg/kg	< 0.3
28	Polyhydroxyalkanoates (All of 10 kinds of PHA)	mg/kg	< 1
29	Naphthalene ($C_{10}H_8$)	mg/kg	< 1
30	Phenanthrene ($C_{14}H_{10}$)	mg/kg	< 1
31	Anthracene ($C_{14}H_{10}$)	mg/kg	< 1
32	Fluoranthene ($C_{16}H_{10}$)	mg/kg	< 1
33	Benz(a)anthracene ($C_{18}H_{12}$)	mg/kg	< 1
34	Chrysene ($C_{18}H_{12}$)	mg/kg	< 1
35	Benzo(k)fluoranthene ($C_{20}H_{12}$)	mg/kg	< 1
36	Benzopyrene ($C_{20}H_{12}$)	mg/kg	< 1
37	Benzo(ghi)pyrene ($C_{22}H_{12}$)	mg/kg	< 1
38	Indeno(1 2 3-cd)pyrene ($C_{22}H_{12}$)	mg/kg	< 1
39	Dichloromethane (CH_2Cl_2)	mg/kg	< 0.4
40	Trichloromethane ($CHCl_3$)	mg/kg	< 0.02
41	Carbon Tetrachloride (CCl_4)	mg/kg	< 0.4
42	Trichloroethylene (C_2HCl_3)	mg/kg	< 0.1

43	Tetracholoethylene ($Cl_2C=CCl_2$)	mg/kg	< 0.002
44	1,1-dichloroethane ($C_2H_4Cl_2$)	mg/kg	< 0.02
45	1,2-dichloroethane ($ClCH_2$-CH_2Cl)	mg/kg	< 0.02
46	Vinyl Chloride (C_2H_3Cl)	mg/kg	< 0.01
47	1,1,1-trichloroethane (CH_3CCl_3)	mg/kg	< 0.07
48	1,1,2-dichloroethane ($C_2H_3Cl_3$)	mg/kg	< 0.4
49	Chlorobenzene (C_6H_5Cl)	mg/kg	< 0.03
50	Chlorophenol (C_6H_5ClO)	mg/kg	< 0.01
51	Chloronaphthalene ($C_{10}H_7Cl$)	mg/kg	< 0.01
52	Dioxins and Fluorans (TCDDs/Fs)	mg/kg	< 5
53	Dichloropropane ($CH_3CHClCH_2Cl$)	mg/kg	< 0.002
54	Polychlorobiphenyls (PCBs)	mg/kg	< 0.02
55	dichlorodiphenyltrichloroethane (DDT/DDD/DDE)	mg/kg	< 0.001
56	Aldrin ($C_{12}H_8Cl_6$)	mg/kg	< 0.00006
57	Dieltrin ($C_{12}H_8Cl_6O$)	mg/kg	< 0.0005
58	Endrin ($C_{12}H_8Cl_6O$)	mg/kg	< 0.00004
59	Hexachlorocyclohexane (CHC-compounds)	mg/kg	< 0.002
60	Alpha-hexachlorocyclohexane (α-HCH)	mg/kg	< 0.003
61	Beta-hexachlorocyclohexane (β-HCH)	mg/kg	< 0.009
62	Gamma-hexachlorocyclohexane (γ-HCH)	mg/kg	< 0.0005
63	Carbaryl ($C_{12}H_{11}NO_2$)	mg/kg	< 0.005
64	Carbofuran ($C_{12}H_{15}NO_3$)	mg/kg	< 0.02
65	Atrazine ($C_8H_{14}ClN_5$)	mg/kg	< 0.02
66	Chlordecone ($C_{10}Cl_{10}O$)	mg/kg	< 0.02
67	Heptachlor ($C_{10}H_5Cl_7$)	mg/kg	< 0.02
68	Heptachlor Epoxide ($C_{10}H_5Cl_7$)	mg/kg	< 0.02
69	Endosulfan ($C_9H_6Cl_6O_3S$)	mg/kg	< 0.02
70	Chlordecone ($C_{10}Cl_{10}O$)	mg/kg	< 0.02
71	Organic tin and it compounds (C-Sn)	mg/kg	< 0.02
72	Natural oil (Mineral oil)	mg/kg	< 0.1
73	Pyridine (C_5H_5N)	mg/kg	< 50
74	Tetrahydrofuran (C_4H_8O)	mg/kg	< 0.1
75	Monoethylene glycol ($C_2H_6O_2$)	mg/kg	< 0.1
76	Diethylene glycol ($C_4H_{10}O_3$)	mg/kg	< 0.1
77	Acrylonitrile (C_3H_3N)	mg/kg	< 0.01
78	Formaldehyde (CH_2O)	mg/kg	< 0.01
79	Methanol (CH_3OH)	mg/kg	< 0.1
80	Butanol (C_4H_9OH)	mg/kg	< 0.01
81	1,2 butyl acetate ($C_6H_{12}O_2$)	mg/kg	< 0.01
82	Tribromoform ($CHBr_3$)	mg/kg	< 0.2
83	Ethyl acetate ($C_4H_8O_2$)	mg/kg	< 0.2
84	Isopropyl alcohol (C_3H_7OH)	mg/kg	< 0.2