

APPENDIX 1

LIST PRE-SUBSTANCES USED IN INDUSTRIAL SECTOR
(Issued together with the Circular No.: 01/2006/TT-BCN dated April 11, 2006 of the Ministry of Industry)

No.	Names of chemicals	Molecular formula
1	Acetic anhydride	$(\text{CH}_3\text{CO})_2\text{O}$
2	Acetone	CH_3COCH_3
3	Anthranilic acid	$\text{NH}_2\text{C}_6\text{H}_4\text{COOH}$
4	Diethyl ether	$(\text{C}_2\text{H}_5)_2\text{O}$
5	Hydrochloric acid	HCl
6	Methyl ethyl ketone	$\text{C}_4\text{H}_8\text{O}$
7	Phenylacetic acid	$\text{C}_8\text{H}_8\text{O}_2$
8	Piperidine	$\text{C}_5\text{H}_{11}\text{N}$
9	Potassium permanganate	KMnO_4
10	Sulphuric acid	H_2SO_4
11	Toluene	$\text{C}_6\text{H}_5\text{CH}_3$
12	Methylamine	CH_3NH_2
13	Nitroethane	$\text{CH}_3\text{CH}_2\text{NO}_2$
14	Tartaric acid	$\text{HO}_2\text{CCH}(\text{OH})\text{CH}(\text{OH})\text{CO}_2\text{H}$
15	Formic acid	HCOOH
16	Formamide	HCONH_2
17	Ethylene diacetate	$\text{CH}_3\text{CO}_2\text{CH}_2\text{CH}_2\text{O}_2\text{CCH}_3$
18	Diethylamine	$(\text{C}_2\text{H}_5)_2\text{NH}$
19	Benzyl cyanide	$\text{C}_6\text{H}_5\text{CH}_2\text{CN}$
20	Benzaldehyde	$\text{C}_6\text{H}_5\text{CHO}$
21	Ammonium formate	HCO_2NH_4
22	Acetic acid	CH_3COOH

APPENDIX 2

(Issued together with the Circular No.: 01/2006/TT-BCN dated April 11, 2006 of the Ministry of Industry)

Chemicals of Table 2 (of the Convention on the Prohibition of production development, storage, use and destruction of chemical weapons)

No.	Names of chemicals	CAS registration Number	HS code
A	Toxic chemicals		
1	Amiton: O, O Diethyl S [2 (diethylamino) ethyl] phosphorothiolate and corresponding alkylated or protonated salts	78-53-5	2930.90
2	PFIB: 1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene	382-21-8	2903.30
3	BZ: 3- Quinuclidinyl benzilate (*)	6581-06-2	2933.90
B	Pre-substances		
4	Chemicals except for chemicals listed in Table 1 containing a phosphorus atom linked to a group of methyl, ethyl or propyl (nocal or iso) rather than the other carbon atom		

	For example. Methylphosphonyl dichloride dimethyl methylphosphonate Exception: O ethyl S-phenyl ethylphosphonothiolothionate	676-97-1 756-79-6 944-22-9	2931.00
5	N,N-dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides		2929.90
6	Dialkyl (Me, Et, n-Pr or i-Pr) N, N-dialkyl (Me, Et, n-Pr or i-Pr)-phosphoramidates		2929.90
7	Arsenic trichloride	7784-34-1	2812.10
8	2,2-diphenyl-2-hydroxyacetic acid	76-93-7	2918.19
9	Quinuclidin-3-ol	1619-34-7	2933.39
10	N, N dialkyl (Me, Et, n Pr or i Pr) aminoethyl-2- chloride and corresponding protonated salts		2921.19
11	N, N dialkyl (Me, Et, n Pr or i Pr) aminoethane-2-ol and corresponding protonated salts Exception: N, N dimethylaminoethanol and corresponding protonated salts N, N diethylaminoethanol and corresponding protonated salts	108-01-0 100-37-8	2922.19
12	N,N-dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols and corresponding protonated salts		2930.90
13	Thiodiglycol: Bis(2-hydroxyethyl) sulfide	111-48-8	2930.90
14	Pinacolyl alcohol: 3,3-Dimethylbutan-2-ol	464-07-3	2905.14

Chemicals of Table 3 (of the Convention on the Prohibition of production development, storage, use and destruction of chemical weapons)

No.	Names of chemicals	CAS registration Number	HS code
A	Toxic chemicals		
1	Phosgene: Carbonyl dichloride	75-44-5	2812.10
2	Cyanogen chloride	506-77-4	2851.00
3	Hydrogen cyanide	74-90-8	2811.19
4	Chloropicrin: Trichloronitromethane	76-06-2	2904.90
B	Pre-substances		
5	Phosphorus oxychloride	10025-87-3	2812.10
6	Phosphorus trichloride	7719-12-2	2812.10
7	Phosphorus pentachloride	10026-13-8	2812.10
8	Trimethyl phosphite	121-45-9	2920.90
9	Triethyl phosphite	122-52-1	2920.90
10	Dimethyl phosphite	868-85-9	2921.19
11	Diethyl phosphite	762-04-9	2920.90
12	Sulfur monochloride	10025-67-9	2812.10

13	Sulfur dichloride	10545-99-0	2812.10
14	Thionyl chloride	7719-09-7	2812.10
15	Ethyldiethanolamine	139-87-7	2922.19
16	Methyldiethanolamine	105-59-9	2922.19
17	Triethanolamine	102-71-6	2922.13

APPENDIX 3

THE LIST OF TOXIC CHEMICALS AND THEIRS PRODUCTS

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No.	Names of chemicals	Molecular formula
1	Acetonitril	CH ₃ CN
2	Pechloric Acid	HClO ₄
3	Acrolein	CH ₂ =CHCHO
4	Arsenide hydro	AsH ₃
5	Aldehydes acetic	CH ₃ CHO
6	Asbestos materials	
7	Ammonia; ammonium hydroxide	NH ₃ ; NH ₄ OH
8	Anhydride arsenic (arsenic trioxid and arsenic pentoxid)	As ₂ O ₃ , As ₂ O ₅
9	Aniline	C ₆ H ₅ NH ₂
10	Antimony	Sb
11	Nitric acid	HNO ₃
12	Phosphoric acid	H ₃ PO ₄
13	Picric acid	C ₆ H ₃ O ₇ N ₃
14	Barium and soluble compounds of barium	Ba; Soluble compounds
15	Barium oxide contains 10% SiO ₂ free	BaO
16	Benzene	C ₆ H ₆
17	Benzidin	C ₁₂ H ₁₂ N ₂
18	Bichromat potassium	K ₂ Cr ₂ O ₇
19	Brom	Br
20	Bromoform	CHBr ₃
21	Bromo - methane Bromo - methan	CH ₃ Br
22	The original sodium cyanide (CN), except for cyanogen chloride	
23	Calcium chloride	CaCl ₂
24	Carbon tetrachloride	CCl ₄
25	Cadmium and its compounds	
26	carbon oxide	CO
27	Lead and inorganic compounds of lead	
28	Chloroform	CHCl ₃
29	Chlor	Cl ₂
30	Chlorobenzene	C ₆ H ₅ Cl

31	1- Chloronaphthalene	$C_{10}H_7Cl$
32	0-[2-chloro-1-(2,5-dichlorophenyl)-vinyl]-0-0- diethyl phosphorothioate	
33	Mercury Chloride	$HgCl_2$
34	Chloroprene	C_4H_5Cl
35	Copper Chloride I và II	$CuCl$; $CuCl_2$
36	Dichlorobenzene	$C_6H_4Cl_2$
37	Carbon dioxide	CO_2
38	Dimethylamin	$(CH_3)_2NH$
39	N,N - dimethylformamide	$HCON(CH_3)_2$
40	Dinitrobenzene	$C_6H_4(NO_2)_2$
41	Dinitrochlorbenzene	$C_6H_3(NO_2)_2Cl$
42	Dinitrotoluen	$CH_3C_6H_3(NO_2)_2$
43	Chlorine dioxide	ClO_2
44	Ethylene oxide	$(CH_2)_2O$
45	Ethyl chloride	C_2H_5Cl
46	Ethylene glycol	CH_2OH-CH_2OH
47	Ethyl mercuric phosphate	
47	Fluorosilicat soluble and insoluble metal	
49	Fluorine hydride	HF
50	Formaldehyde	$HCHO$
51	Furfurol	C_4H_3OCHO
52	Mixtures of tetra and pentan aphtalin of high level	
53	Hydrazine and its derivatives	H_2NNH_2
54	Isopropalin	$C_{15}H_{23}N_3O_4$
55	Isopropyl nitrate	$C_3H_7NO_3$
56	Fluoride mixed iron oxide and compounds of manganese	FeO , Fe_2O_3
57	Metaldehyde	$(CH_3CHO)_n$
58	Methyl alcohol	CH_3OH
59	Fluorhydric acid salts	
60	n - Hexane	C_6H_{14}
61	n-Butanol	C_4H_9OH
62	Nicotine	$C_{10}H_{14}N_2$
63	Nitrobenzene	$C_6H_5NO_2$
64	2-Nitro-1-hydroxybenzen-4-arsonic acid	
65	Nitrogen dioxide	NO_2
66	Nitrotoluen	$CH_3C_6H_4NO_2$
67	Nitrid metal	
68	nickel oxide	NiO
69	Chromium oxide	CrO_3

70	Oxynitrogen (NO _x)	N ₂ O, NO, NO ₂ , N ₂ O ₃ , N ₂ O ₅
71	Ozone	O ₃
72	Paranitrophenyl	C ₆ H ₄ (NO ₂) ₂
73	PCB (polychlorinated biphenyl) and PCB-containing compounds	
74	Parathion	(C ₂ H ₅ O) ₂ PSO-C ₆ H ₄ NO ₂
75	Phenol	C ₆ H ₅ OH
76	Phosphor	P
77	Phosphin	PH ₃
78	Phosphor metal	
79	Pyridine	C ₅ H ₅ N
80	Selenium and its compounds	Se
81	Sulfur carbon	SC ₂
82	Lead sulfide	PbS
83	Hydrogen sulfide	H ₂ S
84	Talium	Tl
85	Tetranitromethane	C(NO ₂) ₄
86	Tetrachloroheptane	C ₇ H ₁₂ Cl ₄
87	Tetraethyl thiuram disulfide	(C ₂ H ₅) ₄ N ₂ S ₄
88	Tetraethyl lead	Pb(C ₂ H ₅) ₄
89	Mercury	Hg
90	Mercury compounds	
91	Trichlorobenzene	C ₆ H ₃ Cl ₃
92	Trichloroethylene	CHCl -CCl ₂
93	Trinitrobenzene	C ₆ H ₃ (NO ₂) ₃
94	Trinitro compounds	
95	Xylene	C ₆ H ₄ (CH ₃) ₂

APPENDIX 4

THE LIST AND TECHNICAL STANDARDS FOR IMPORTED CHEMICALS
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No.	Named of chemicals	Standards of quality, content (%)	Technical standards
1	Sodium hydroxide (liquid) (NaOH)	TCVN 3793-83 NaOH NaCl	> 31% 0.004% Max
2	hydrochloric acid (HCl)	TCVN 1556-86 & 52-99 HCl Fe Cl ₂ free SO ₄ As	> 32% < 0.01% < 0.015% < 0.03% 0.0001% Max

3	Technical sulfuric acid (H ₂ SO ₄)	TCVN 5719-92 H ₂ SO ₄ Fe Content of residue after heating	> 97% 0.010 Max 0.020 Max
4	2807.00.00 Pure sulfuric acid (H ₂ SO ₄)	TCVN 138-64 H ₂ SO ₄ Cl ⁺ NH ₄	> 97.2% 0.00002% Max 0.0002% Max
5	Technical phosphoric acid (H ₃ PO ₄)	TCN 101-1997 H ₃ PO ₄ Fe As	> 85% 0.002% Max 0.008% Max
6	Single alum from aluminum hydroxide	64 TCN 45-88 Fe ₂ O ₃ Free acid	0.015% Max 0.1% Max