

## Scheduled Chemicals under the Chemical Weapons (Convention) Ordinance

The following are chemicals under Schedules 1, 2 and 3 of the Chemical Weapons (Convention) Ordinance:

### Schedule 1

- A. Toxic chemicals : (CAS registry number)
- (1) O-Alkyl ( $\leq C_{10}$ , incl. cycloalkyl) alkyl  
(Me, Et, n-Pr or i-Pr)-phosphonofluoridates  
e.g. Sarin : O-Isopropyl methylphosphonofluoridate (107-44-8)  
Soman : O-Pinacolyl methylphosphonofluoridate (96-64-0)
  - (2) O-Alkyl ( $\leq C_{10}$ , incl. cycloalkyl) N,N-dialkyl  
(Me, Et, n-Pr or i-Pr) phosphoramidocyanidates  
e.g. Tabun : O-Ethyl N,N-dimethyl  
phosphoramidocyanidate (77-81-6)
  - (3) O-Alkyl (H or  $\leq C_{10}$ , incl. cycloalkyl) S-2-dialkyl  
(Me, Et, n-Pr or i-Pr)-aminoethyl alkyl  
(Me, Et, n-Pr or i-Pr) phosphonothiolates and  
corresponding alkylated or protonated salts  
e.g. VX : O-Ethyl S-2-diisopropylaminoethyl  
methyl phosphonothiolate (50782-69-9)
  - (4) Sulfur mustards :  
2-Chloroethylchloromethylsulfide (2625-76-5)  
Mustard gas : Bis(2-chloroethyl)sulfide (505-60-2)  
Bis(2-chloroethylthio)methane (63869-13-6)  
Sesquimustard : 1,2-Bis(2-chloroethylthio)ethane (3563-36-8)  
1,3-Bis(2-chloroethylthio)-n-propane (63905-10-2)  
1,4-Bis(2-chloroethylthio)-n-butane (142868-93-7)  
1,5-Bis(2-chloroethylthio)-n-pentane (142868-94-8)  
Bis(2-chloroethylthiomethyl)ether (63918-90-1)  
O-Mustard : Bis(2-chloroethylthioethyl)ether (63918-89-8)
  - (5) Lewisites :  
Lewisite 1 : 2-Chlorovinylchloroarsine (541-25-3)  
Lewisite 2 : Bis(2-chlorovinyl)chloroarsine (40334-69-8)  
Lewisite 3 : Tris(2-chlorovinyl)arsine (40334-70-1)
  - (6) Nitrogen mustards :  
HN1 : Bis(2-chloroethyl)ethylamine (538-07-8)  
HN2 : Bis(2-chloroethyl)methylamine (51-75-2)  
HN3 : Tris(2-chloroethyl)amine (555-77-1)
  - (7) Saxitoxin (35523-89-8)
  - (8) Ricin (9009-86-3)
- B. Precursors :
- (9) Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldifluorides  
e.g. DF : Methylphosphonyldifluoride (676-99-3)
  - (10) O-Alkyl (H or  $\leq C_{10}$ , incl. cycloalkyl) O-2-dialkyl  
(Me, Et, n-Pr or i-Pr)-aminoethyl alkyl  
(Me, Et, n-Pr or i-Pr) phosphonites and  
corresponding alkylated or protonated salts  
e.g. QL : O-Ethyl O-2-diisopropylaminoethyl  
methylphosphonite (57856-11-8)
  - (11) Chlorosarin : O-Isopropyl methylphosphonochloridate (1445-76-7)
  - (12) Chlorosoman : O-Pinacolyl methylphosphonochloridate (7040-57-5)

## Schedule 2

### A. Toxic chemicals :

- (1) Amiton : O,O-Diethyl S-[2-(diethylamino)ethyl]  
phosphorothiolate (78-53-5)  
and corresponding alkylated or protonated salts
- (2) PFIB : 1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene (382-21-8)
- (3) BZ : 3-Quinuclidinyl benzilate (\*) (6581-06-2)

### B. Precursors :

- (4) Chemicals, except for those listed in Schedule 1,  
containing a phosphorus atom to which is bonded  
one methyl, ethyl or propyl (normal or iso) group  
but not further carbon atoms,  
e.g. Methylphosphonyl dichloride (676-97-1)  
Dimethyl methylphosphonate (756-79-6)  
Exemption : Fonofos : O-Ethyl S-phenyl  
ethylphosphonothiothionate (944-22-9)
- (5) N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides
- (6) Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl  
(Me, Et, n-Pr or i-Pr)-phosphoramidates
- (7) Arsenic trichloride (7784-34-1)
- (8) 2,2-Diphenyl-2-hydroxyacetic acid (76-93-7)
- (9) Quinuclidin-3-ol (1619-34-7)
- (10) N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides  
and corresponding protonated salts
- (11) N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols  
and corresponding protonated salts  
Exemptions : N,N-Dimethylaminoethanol (108-01-0)  
and corresponding protonated salts  
N,N-Diethylaminoethanol (100-37-8)  
and corresponding protonated salts
- (12) N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols  
and corresponding protonated salts
- (13) Thiodiglycol: Bis (2-hydroxyethyl)sulfide (111-48-8)
- (14) Pinacolyl alcohol: 3,3-Dimethylbutan-2-ol (464-07-3)

## Schedule 3

### A. Toxic chemicals :

- (1) Phosgene : Carbonyl dichloride (75-44-5)
- (2) Cyanogen chloride (506-77-4)
- (3) Hydrogen cyanide (74-90-8)
- (4) Chloropicrin : Trichloronitromethane (76-06-2)

### B. Precursors :

- (5) Phosphorus oxychloride (10025-87-3)
- (6) Phosphorus trichloride (7719-12-2)
- (7) Phosphorus pentachloride (10026-13-8)
- (8) Trimethyl phosphite (121-45-9)
- (9) Triethyl phosphite (122-52-1)
- (10) Dimethyl phosphite (868-85-9)
- (11) Diethyl phosphite (762-04-9)
- (12) Sulfur monochloride (10025-67-9)
- (13) Sulfur dichloride (10545-99-0)
- (14) Thionyl chloride (7719-09-7)
- (15) Ethyldiethanolamine (139-87-7)
- (16) Methyl-diethanolamine (105-59-9)
- (17) Triethanolamine (102-71-6)