

**Scheduled Chemicals Controlled by  
Chemical Weapons (Conventions) Ordinance**

The following are chemicals controlled by the Chemical Weapons (Convention) Ordinance. They are included in Schedules 1, 2 and 3 of the above 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:

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|-----|------------------------------------------------------------------------------------------------------------------------|-------------|
| (1) | Amiton : O,O-Diethyl S-[2-(diethylamino)ethyl]<br>phosphorothiolate<br>and corresponding alkylated or protonated salts | (78-53-5)   |
| (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,<br>containing a phosphorus atom to which is bonded<br>one methyl, ethyl or propyl (normal or iso) group<br>but not further carbon atoms,<br>e.g. Methylphosphonyl dichloride<br>Dimethyl methylphosphonate<br>Exemption : Fonofos : O-Ethyl S-phenyl<br>ethylphosphonothiolothionate | (676-97-1)<br>(756-79-6)<br>(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<br>(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<br>and corresponding protonated salts                                                                                                                                                                                                                                        |                                        |
| (11) | N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols<br>and corresponding protonated salts<br>Exemptions : N,N-Dimethylaminoethanol<br>and corresponding protonated salts<br>N,N-Diethylaminoethanol<br>and corresponding protonated salts                                                                                             | (108-01-0)<br>(100-37-8)               |
| (12) | N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols<br>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 :

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|-----|--------------------------------------|------------|
| (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 :

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|------|--------------------------|--------------|
| (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) | Ethyl-diethanolamine     | (139-87-7)   |
| (16) | Methyl-diethanolamine    | (105-59-9)   |
| (17) | Triethanolamine          | (102-71-6)   |