

**Scheduled Chemicals Controlled by  
the Chemical Weapons (Convention) Ordinance**

The following are chemicals scheduled to the Chemical Weapons Convention. They are also controlled by Chemical Weapons (Convention) Ordinance and are included in its Schedules 1, 2 and 3.

**Schedule 1**

- | <u>A. Toxic chemicals :</u>  | (CAS registry number)  |
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| (1) O-Alkyl ( $\leq C_{10}$ , incl. cycloalkyl) alkyl<br>(Me, Et, n-Pr or i-Pr)-phosphonofluoridates<br>e.g. Sarin : O-Isopropyl methylphosphonofluoridate<br>Soman : O-Pinacolyl methylphosphonofluoridate  | (107-44-8)<br>(96-64-0)  |
| (2) O-Alkyl ( $\leq C_{10}$ , incl. cycloalkyl) N,N-dialkyl<br>(Me, Et, n-Pr or i-Pr) phosphoramidocyanidates<br>e.g. Tabun : O-Ethyl N,N-dimethyl<br>phosphoramidocyanidate   | (77-81-6)  |
| (3) O-Alkyl (H or $\leq C_{10}$ , incl. cycloalkyl) S-2-dialkyl<br>(Me, Et, n-Pr or i-Pr)-aminoethyl alkyl<br>(Me, Et, n-Pr or i-Pr) phosphonothiolates and<br>corresponding alkylated or protonated salts<br>e.g. VX : O-Ethyl S-2-diisopropylaminoethyl<br>methyl phosphonothiolate  | (50782-69-9)   |
| (4) Sulfur mustards :<br>2-Chloroethylchloromethylsulfide<br>Mustard gas : Bis(2-chloroethyl)sulfide<br>Bis(2-chloroethylthio)methane<br>Sesquimustard :<br>1,2-Bis(2-chloroethylthio)ethane<br>1,3-Bis(2-chloroethylthio)-n-propane<br>1,4-Bis(2-chloroethylthio)-n-butane<br>1,5-Bis(2-chloroethylthio)-n-pentane<br>Bis(2-chloroethylthiomethyl)ether<br>O-Mustard : Bis(2-chloroethylthioethyl)ether | (2625-76-5)<br>(505-60-2)<br>(63869-13-6)<br><br>(3563-36-8)<br>(63905-10-2)<br>(142868-93-7)<br>(142868-94-8)<br>(63918-90-1)<br>(63918-89-8) |
| (5) Lewisites :<br>Lewisite 1 : 2-Chlorovinylchloroarsine<br>Lewisite 2 : Bis(2-chlorovinyl)chloroarsine<br>Lewisite 3 : Tris(2-chlorovinyl)arsine   | (541-25-3)<br>(40334-69-8)<br>(40334-70-1)   |
| (6) Nitrogen mustards :<br>HN1 : Bis(2-chloroethyl)ethylamine<br>HN2 : Bis(2-chloroethyl)methylamine<br>HN3 : Tris(2-chloroethyl)amine   | (538-07-8)<br>(51-75-2)<br>(555-77-1)  |
| (7) Saxitoxin  | (35523-89-8)   |
| (8) Ricin  | (9009-86-3)  |
| <br><u>B. Precursors :</u>   |  |
| (9) Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldifluorides<br>e.g. DF : Methylphosphonyldifluoride   | (676-99-3)   |
| (10) O-Alkyl (H or $\leq C_{10}$ , incl. cycloalkyl) O-2-dialkyl<br>(Me, Et, n-Pr or i-Pr)-aminoethyl alkyl<br>(Me, Et, n-Pr or i-Pr) phosphonites and<br>corresponding alkylated or protonated salts<br>e.g. QL : O-Ethyl O-2-diisopropylaminoethyl<br>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  
ethylphosphonothiolothionate (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) Methyldiethanolamine (105-59-9)
- (17) Triethanolamine (102-71-6)