

# Chemical Weapons Convention

## Schedules of Chemicals

### Schedule 1

#### A. Toxic chemicals:

- (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 (51-75-21)  
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 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) Quinuclidine-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 and corresponding protonated salts (108-01-0)  
N,N-Diethylaminoethanol and corresponding protonated salts (100-37-8)
- (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-Dimethylbutane-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)

Note: The Chemical Abstracts Service (CAS) registry number is bracketed.

**LETTER HEAD OF COMMERCE AND INDUSTRY BUREAU**

**Urgent By Fax**

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18 July 2001

Mrs Florence Lam  
Clerk to Panel  
Legislative Council Secretariat  
3rd Floor Citibank Tower  
3 Garden Road  
Hong Kong

Dear Florence,

**LegCo Panel on Commerce and Industry  
Follow-up to meeting on 9 July 2001**

Thank you for your letter of 11 July 2001. Please find enclosed a copy of the three Schedules to the Chemical Weapons Convention (in both Chinese and English) for Members' reference. The soft copy is being e-mailed to you.

(Ellen Choy)  
for Secretary for Commerce and Industry

Encl.