

## SCHEDULE - 2

	(CAS Registry Number)
<b>A. Toxic chemicals:</b>	
(1) Amiton: O,O-Diethyl S-[2-(diethylamino)ethyl] Phosphorothiolate 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>B. Precursors:</b>	
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 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-Dimethylbutan-2-ol	(464-07-3)

## SCHEDULE - 3

	(CAS Registry Number)
<b>A. Toxic chemicals:</b>	
(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>B. Precursors:</b>	
(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

The Act also covers old and abandoned chemical weapons hence any one possessing or has knowledge about the location of Scheduled chemical weapons should inform to the National Authority. Persons engaged in the activities related with handling of schedule 1 to 3 chemicals is required to get registered with the national authority.

### Verification & Inspection Regime :

All the industries coming under purview of this Act are required to submit declarations, viz. initial, annual and amendment, to the Ministry of Chemicals, GoI. The time schedule and declaration forms for various categories of industries for different designated purpose are defined under the Act. The industries recognized by the Deptt. Of Chemicals, GoI is assigned a code and the same may be liable to inspection by a competent team.

### Punitive Actions :

Anyone violating the provisions of the Act is liable to face punishments and penalties, imprisonment and fine, under the Act. The imprisonment may extend to the term of life and a fine may extend to one lakh rupees. A person aggrieved by any directions issued against him may appeal to the Central Government.

### Reference Guidelines on Chemicals

In order to improve the identification of scheduled chemicals by National Authorities a harmonized system codes for all scheduled chemicals has been added in accordance with the Recommendation of the World Customs Organization. The web link [www.ercmp.nic.in/cwc\\_chem\\_guide.doc](http://www.ercmp.nic.in/cwc_chem_guide.doc) can be visited for details of chemicals on CAS basis, Name basis, Schedule basis etc. Other details regarding Chemical Weapons Convention can be referred at [www.ercmp.nic.in/cwc\\_detail.htm](http://www.ercmp.nic.in/cwc_detail.htm).

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# Chemical Weapons Convention



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**Preamble:**

Chemical Weapons Convention (CWC) is universal non-discriminatory, multilateral Disarmament Treaty that bans the development, production, acquisition, transfer, use and stockpile of all chemical weapons. No person can produce, acquire, retain or use toxic chemicals or precursors listed in Schedule 1 nor one can transfer such chemicals outside the country, except as per the defined lines. Countries having stockpiles of chemical weapons are required to declare and destroy them in a specified time frame and those who produce and use chemicals that can be easily converted into chemical weapons have to be open and transparent about the use they put these chemicals to. As on 13/02/2009, total 186 Countries are States Parties, including India which signed the Convention in January 1993.

**Obligations under the Convention :**

The signatory countries are required to fulfill certain obligations. To meet the obligations under the Convention, India enacted the CWC Act, 2000 w.e.f. 01/07/2005 in the country. A National Authority of Chemical Weapons Convention has also been established as an office of the Cabinet Secretariat for implementing the provisions of the Convention. This authority acts as the national focal point for effective liaison with the organisations and States parties and see that the obligations under the convention are fulfilled. The GoI has notified enforcement officers for the purpose of this Act. The important obligations of the Convention on the Chemical Industries are Declaration of plant sites for designated categories of organic chemicals and verification of plant facility.



**Declaration and Inspection**

**Thresholds :**

Threshold limits are prescribed under the Act for the purpose of declaration. Any facility producing, processing or consuming the chemical beyond the prescribed quantity is required to submit initial annual and amendment declarations. Not all the industries that file declarations are inspectable.

Inspection thresholds are provided for each category of the declaring facilities and only those units are inspectable which carry out the activities above the inspection thresholds.

**Scheduled Chemicals :**

The convention has specified three Schedules of declarant chemicals. Schedule I comprises 12 chemicals which are either chemical weapons themselves or very closely related to the chemical weapons. The Schedule II comprises 14 entries and these are the chemicals that can be used to make chemical weapons. The Schedule III comprises 17 entries. These are the chemicals which are used for peaceful purpose as well as for producing Sch. I and II chemicals. Besides three Schedules, the Other Chemical Production Facilities (OCPF), i.e. Discrete Organic Chemicals and PSF chemicals producing units, are also covered under the Convention's criteria. No export or import of scheduled chemicals can be undertaken except in accordance with the DGFT notification.

		(CAS Register Number)
<b>A.</b>	<b>Toxic chemicals:</b>	
(1)	O-Alkyl (<C10, incl. cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr)-phosphonofluoridates e.g. Sarin: O-Isopropyl methylphosphonofluoridate	107-44-8
(2)	O-Alkyl (<C10, 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 <C10, 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 Mustard gas: Bis(2-chloroethyl)sulfide Bis(2-chloroethylthio)methane Sesquimustard: 1,2-Bis(2-chloroethylthio)ethane 1,3-Bis(2-chloroethylthio)-n-propane 1,4-Bis(2-chloroethylthio)-n-butane	2625-76-5 505-60-2 63869-13-6 3563-36-8 63905-10-2 142868-93-
7	1,5-Bis(2-chloroethylthio)-n-pentane	142868-94-
8	Bis(2-chloroethylthiomethyl)ether O-Mustard: Bis(2-chloroethylthioethyl) ether	63918-90-1 63918-89-8
(5)	Lewisites: Lewisite 1: 2-Chlorovinylchloroarsine Lewisite 2: Bis(2-chlorovinyl)chloroarsine Lewisite 3: Tris(2-chlorovinyl)arsine	541-25- 40334-69-8 40334-70-1
(6)	Nitrogen mustards: HN1: Bis(2-chloroethyl)ethylamine HN2: Bis(2-chloroethyl)methylamine HN3: Tris(2-chloroethyl)amine	538-07-8 51-75-2 555-77-1
(7)	Saxitoxin	35523-89-8
(8)	Ricin	9009-86-3
<b>B.</b>	<b>Precursors:</b>	
(9)	Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldifluorides e.g. DF: Methylphosphonyldifluoride	676-99-3
10	O-Alkyl (H or <C10, 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 1445-76-7
11	Chlorosarin: O-Isopropyl methylphosphonochloridate	