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## DEPARTMENT OF TRADE, INDUSTRY AND COMPETITION

NO. 320

8 April 2021

**NON-PROLIFERATION OF WEAPONS OF MASS DESTRUCTION ACT, 1993  
(ACT NO. 87 OF 1993)****DECLARATION OF CERTAIN CHEMICAL GOODS AS CONTROLLED GOODS  
AND CONTROL MEASURES APPLICABLE TO SUCH GOODS****Definitions**

1. In this Notice any word or expression to which a meaning has been assigned in the Non-Proliferation of Weapons of Mass Destruction Act, 1993 (Act No. 87 of 1993), or the Chemical Weapons Convention, as the case may be, shall have the meaning so assigned and, unless the context otherwise indicates—

**"antiplant agent"** means any chemical listed in Annexure F to this Notice, which can defoliate plants or which can destroy crops or plants or which can sterilise the soil to prevent plant growth;

**"Chemical Weapons Convention"** means the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction;

**"development"** means all phases before production, and includes conceptualisation, research, analysis, testing, configuration or pilot production schemes;

**"discrete organic chemical"** means any chemical belonging to a class of chemical compounds consisting of all compounds of carbon, except for its oxides, sulphides and metal carbides or carbonates, identifiable by chemical structure, by structural formula, if known, and by the Chemical Abstracts Service (CAS) registry number, if assigned, and not contained in the chemicals listed in

Annexures A, B or C to this Notice;

**"riot control agent"** means any toxic chemical, which is not among the toxic chemicals listed in Annexures A, B, C or D to this Notice, which can produce rapidly in humans sensory irritation or disabling physical effects, which disappear within a short time following the termination of exposure;

**"manufacture"**, in relation to a chemical, includes development and production;

**"precursor"** means any chemical reactant which takes part at any stage in the production by whatever method of a toxic chemical. This includes any key component of a binary or multicomponent chemical system;

**"PSF discrete organic chemical"** means any discrete organic chemical containing one or more of the elements phosphorus, sulphur or fluorine;

**"purposes not prohibited under the Chemical Weapons Convention"** means-

- (a) industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes;
- (b) protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons;
- (c) military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare; and
- (d) law enforcement including for domestic riot control purposes;

**"services"** includes freight forwarding, storing and stockpiling (if not part of the manufacture and transfer processes), transporting, maintaining (repairing, overhauling, refurbishing), trading, consulting, disposing, and technical assistance;

**"toxic chemical"** means any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals. This includes all such chemicals, regardless of their origin or of their method of production, and regardless of whether they are produced in

facilities, in munitions or elsewhere;

**"the Act"** means the Non-Proliferation of Weapons of Mass Destruction Act, 1993 (Act No. 87 of 1993);

**"transfer"** means the change of ownership or custodianship or change in the location of controlled goods, whether or not they cross an international border; and

**"use"**, in relation to a chemical, means the depletion of reserves by adding a chemical to formulations, as a constituent in a mixture, in a scrubber of unwanted chemicals, as a starting material in a process, as a component of a reaction or as a catalyst.

#### **Declaration**

2. I, Ebrahim Patel, Minister of Trade, Industry and Competition, under section 13(1) of the Non-Proliferation of Weapons of Mass Destruction Act, 1993 (Act No. 87 of 1993), and on the recommendation of the South African Council for the Non-Proliferation of Weapons of Mass Destruction (hereinafter referred to as "the Council"), hereby declare the goods listed in paragraph 4 of, and in the Annexures to, this Notice to be controlled goods.
3. I hereby—
  - (a) in terms of section 13(2)(a) and (e) of the Act and pursuant to South Africa's obligations under the Chemical Weapons Convention, further prohibit—
    - (i) the development, production, acquisition, stockpiling or retention of chemical weapons or the transfer, whether direct or indirect, of chemical weapons to any person;
    - (ii) the use of chemical weapons;
    - (iii) engagement in any military preparations to use chemical weapons;
    - (iv) the assistance, encouragement or induction, in any way, of any

person to engage in any activity prohibited under the Chemical Weapons Convention;

- (v) the use of riot control agents as a method of warfare; and
  - (vi) the export or re-export of the toxic chemicals or precursors listed in Annexures A and B, whether in substantially pure form or in a mixture with any other substance, to countries which are not States Parties to the Chemical Weapons Convention.
- (b) in terms of section 13(2)(b) of the Act, determine that the import, export, re-export or transit (including transshipment) of the controlled goods, as listed in Annexures A, B, C and E to this Notice, shall take place under a permit issued by the Council: A permit is not required for quantities of 5 milligrams or less of saxitoxin, if the transfer is made for medical or diagnostic purposes, in which case a notification to that effect shall be made to the Council before the transfer;
- (c) in terms of section 13(2)(b) of the Act, determine that the transit (including transshipment), export or re-export of the controlled goods, as listed in Annexures D and F to this Notice, shall take place under a permit issued by the Council;
- (d) in terms of section 13(2)(b) of the Act, determine that the internal (intranational) transfer of chemicals listed in Annexure A to this Notice, shall take place under a permit issued by the Council;
- (e) in terms of section 13(2)(c) of the Act, determine that the Council may require a State-to-State assurance or an end-user or end-use certificate for the export or re-export of the controlled goods listed in the Annexures to this Notice;
- (f) in terms of section 13(2)(c) of the Act, determine that the Council shall require an end-user or end-use certificate for the export or re-export of the controlled goods listed in Annexure C to this Notice, whether in substantially pure form or in a mixture with any other substance in a

concentration of greater than or equal to 30 per cent by weight, to countries which are not States Parties to the Chemical Weapons Convention;

- (g) in terms of section 13(2)(c) of the Act, determine that the Council shall require an end-user or end-use certificate for the export or re-export of the controlled goods listed in Annexure E to this Notice, whether in substantially pure form or in a mixture with any other substance, except in products identified as consumer goods packaged for retail sale for personal use or packaged for individual use;
- (h) in terms of section 13(2)(f) of the Act, determine that the manufacture of, and provision of services with respect to, controlled goods listed in Annexure A to this Notice shall take place under a permit issued by the Council; and
- (i) in terms of section 13(3)(b) of the Act determine that the Council should, not less than 60 days before the transfer of controlled goods listed in Annexure A to or from another State Party, be notified of the transfer.

#### **Controlled goods**

- 4. The following goods are controlled goods at the control thresholds indicated in paragraph 5 of this Notice:
  - (a) The toxic chemicals and precursors listed in Annexures A, B and C, which may be used for purposes that are not prohibited as indicated in paragraph 9 of Article II of the Chemical Weapons Convention: Provided that the types and quantities are consistent with such purposes, whether in substantially pure form or in a mixture. Whenever, in Annexures A and B, reference to groups of dialkylated chemicals is followed by a list of alkyl groups in parentheses, all chemicals possible by all possible combinations of alkyl groups listed in the parentheses are considered to be controlled goods, except those explicitly exempted in Annexure B;
  - (b) the toxic chemicals listed in Annexure D, whether in substantially pure form or in a mixture;

- (c) the riot control agents listed in Annexure E, whether in substantially pure form or in a mixture, except—
  - (i) goods containing capsaicin packaged for retail sale for personal use or packaged for individual use; and
  - (ii) goods containing riot control agents packaged for food production or medical purposes;
- (d) the antiplant agents listed in Annexure F, whether in substantially pure form or in a mixture;
- (e) any chemical facility that produces, acquires, consumes or stores any quantity of the toxic chemicals and precursors listed in Annexure A. As indicated in paragraph 8 of Part VI of the Verification Annex of the Chemical Weapons Convention, the production of the toxic chemicals and precursors listed in Annexure A shall only be carried out at a single small-scale facility. The toxic chemicals and precursors shall only be applied for research, medical, pharmaceutical or protective purposes, and the aggregate amount of such chemicals for such purposes at any given time should be less than or equal to one metric tonne;
- (f) any chemical facility that produced, processed or consumed during the previous calendar year or anticipates to produce, process or consume in the next calendar year 10 grams or more of the toxic chemical BZ listed in Annexure B, one kilogram or more of the toxic chemicals Amiton or PFIB listed in Annexure B or 10 kilograms or more of any precursor listed in Annexure B;
- (g) any chemical facility that produced during the previous calendar year or anticipates to produce in the next calendar year 100 kilograms or more of any toxic chemical listed in Annexure C;
- (h) any chemical facility that produced by chemical synthesis, an aggregate quantity of 100 metric tonnes or more of any number of discrete organic chemicals or their salts, or an aggregate quantity of 15 metric tonnes or



more of any single PSF discrete organic chemical or its salts, during the previous calendar year. For the purposes of this paragraph, polymeric and oligomeric substances are not regarded as discrete organic chemicals. For the purposes of this paragraph, chemical facilities that—

- (i) produce explosives or hydrocarbons exclusively, are exempted;
  - (ii) produce polymeric and oligomeric substances exclusively, are exempted;
  - (iii) produce any discrete organic chemicals or PSF discrete organic chemicals, as well as hydrocarbons, explosives or polymeric and oligomeric substances, are not exempted; or
  - (iv) process chemicals or blend or formulate chemicals into products such as insecticides, paints or detergents, where no chemical reactions take place, are exempted;
- (i) the technology required for the production of the controlled goods listed in Annexure A and the toxic chemicals listed in Annexure B; and
  - (j) the manufacturing of, and provision of services with respect to controlled goods listed in Annexure A.

#### **Control thresholds**

5. (1) The control thresholds of controlled goods for the purposes of declarations shall be as follows:
- (a) all quantities of the toxic chemicals and precursors listed in Annexure A, whether in substantially pure form or in a mixture with any other substance;
  - (b) an aggregate quantity per calendar year of—
    - (i) the toxic chemical BZ listed in Annexure B greater than or

- equal to 10 grams, whether in substantially pure form or in a mixture with any other substance in a concentration greater than or equal to one per cent by weight;
- (ii) the toxic chemicals Amiton and PFIB listed in Annexure B greater than or equal to one kilogram, whether in substantially pure form or in a mixture with any other substance in a concentration greater than or equal to one per cent by weight;  
or
  - (iii) the precursors listed in Annexure B greater than or equal to 10 kilograms, whether in substantially pure form or in a mixture with any other substance in a concentration greater than or equal to 30 per cent by weight;
- (c) an aggregate quantity per calendar year of the toxic chemicals and precursors listed in Annexure C greater than or equal to 100 kilograms, whether in substantially pure form or in a mixture with any other substance in a concentration greater than or equal to 30 per cent by weight;
  - (d) an aggregate quantity per calendar year of all discrete organic chemicals or their salts produced within a chemical plant site greater than or equal to 100 metric tonnes in substantially pure form;
  - (e) an aggregate quantity per calendar year of all PSF discrete organic chemicals or their salts produced within a chemical facility greater than or equal to 15 metric tonnes in substantially pure form;
  - (f) an aggregate quantity per calendar year of the toxic chemicals listed in Annexure D greater than or equal to one metric tonne, whether in substantially pure form or in a mixture with any other substance in a concentration greater than or equal to 30 per cent by weight;
  - (g) an aggregate quantity per calendar year of the riot control agents listed in Annexure E greater than or equal to 100 kilograms, whether

in substantially pure form or in a mixture with any other substance, except in products identified as consumer goods packaged for retail sale for personal use or packaged for individual use; and

- (h) any quantity per calendar year of the antiplant agents listed in Annexure F, whether in substantially pure form or in a mixture with any other substance.
- (2) For the purposes of subparagraphs (1)(a), (b) and (c), all threshold quantities shall include quantities of controlled chemicals generated as by-products or as components of waste or effluent streams in a chemical production process.
- (3) The control thresholds of controlled goods for the purposes of transfers shall be as follows:
- (a) All quantities of the toxic chemicals and precursors listed in Annexure A, whether in substantially pure form or in a mixture with any other substance; and
  - (b) All quantities of toxic chemicals and precursors listed in Annexure B.

**Note:**

- (i) The toxic chemical BZ listed in Annexure B whether in substantially pure form or in a mixture with any other substance in a concentration greater than or equal to one per cent by weight;
- (ii) The toxic chemicals Amiton and PFIB listed in Annexure B whether in substantially pure form or in a mixture with any other substance in a concentration greater than or equal to one per cent by weight; or
- (iii) The precursors listed in Annexure B whether in substantially pure form or in a mixture with any other substance in a

concentration greater than or equal to 30 per cent by weight;

- (c) an aggregate quantity of the toxic chemicals and precursors listed in Annexure C greater than or equal to 25 kilograms, whether in substantially pure form or in a mixture with any other substance in a concentration greater than or equal to 30 per cent by weight;
  - (d) an aggregate quantity of the toxic chemicals listed in Annexure D greater than or equal to 100 kilograms, whether in substantially pure form or in a mixture with any other substance in a concentration greater than or equal to 30 per cent by weight;
  - (e) any quantity of the riot control agents listed in Annexure E, whether in substantially pure form or in a mixture with any other substance, except in products identified as consumer goods packaged for retail sale for personal use or packaged for individual use; and
  - (f) any quantity of the antiplant agents listed in Annexure F, whether in substantially pure form or in a mixture with any other substance.
- (4) Products containing chemicals listed in Annexure B may be exported to countries that are not States Parties to the Chemical Weapons Convention: Provided that the said products contain—
- (a) one per cent or less of the toxic chemicals listed in Annexure B; or
  - (b) 10 per cent or less of the precursors listed in Annexure B; and
- are identified as consumer goods packaged for retail sale for personal use or packaged for individual use.
- (5) Products containing chemicals listed in Annexure C may be exported without a permit to countries that are not States Parties to the Chemical Weapons Convention: Provided that the said products contain less than 30 per cent of a chemical listed in Annexure C and are identified as consumer goods packaged for retail sale for personal use or packaged for individual

use.

**Application forms**

6. Application forms for permits contemplated in paragraph 3 of this Notice may be obtained from any of the following addresses:

(a) Postal address:

The Secretariat

South African Council for the Non-Proliferation of Weapons of Mass  
Destruction

Private Bag X84

PRETORIA

0001; or

(b) Physical address:

The Secretariat

South African Council for the Non-Proliferation of Weapons of Mass  
Destruction

77 Meintjies Street

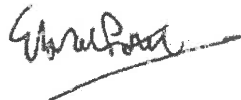
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PRETORIA or

(c) The website of the South African Council for the Non-Proliferation of  
Weapons of Mass Destruction at <http://non-proliferation.thedfic.gov.za/>.

**Repeal**

7. Government Notice No. 495 of 29 March 2019 in Government Gazette No. 42337  
is hereby repealed.



**Ebrahim Patel**  
**Minister of Trade, Industry and Competition**

**ANNEXURE A****Schedule 1 of the Chemical Weapons Convention**(Chemical Abstracts Service  
Registry Number)**A. Toxic Chemicals:**

- (1) O-Alkyl (<C10, 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 (<C10, incl. cycloalkyl) N,N-dialkyl  
(Me, Et, n-Pr or i-Pr) phosphoramidocyanidates
- |             |  |           |
|-------------|--|-----------|
| e.g. Tabun: | O-Ethyl N,N-dimethyl<br>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<br>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)
- (13) P-alkyl (H or  $\leq C_{10}$ , incl. cycloalkyl) N-(1-(dialkyl( $\leq C_{10}$ , incl. cycloalkyl)amino))alkylidene(H or  $\leq C_{10}$ , incl. cycloalkyl) phosphonamidic fluorides and corresponding alkylated or protonated salts
- e.g. N-(1-(di-n-decylamino)-n-decylidene)-P-decylphosphonamidic fluoride (2387495-99-8)
- Methyl-(1-(diethylamino)ethylidene)phosphonamidofluoridate (2387496-12-8)
- (14) O-alkyl (H or  $\leq C_{10}$ , incl. cycloalkyl) N-(1-(dialkyl( $\leq C_{10}$ , incl. cycloalkyl)amino))alkylidene(H or  $\leq C_{10}$ , incl. cycloalkyl) phosphoramidofluoridates and corresponding alkylated or protonated salts
- e.g. O-n-Decyl N-(1-(di-n-decylamino)-n-decylidene)phosphoramidofluoridate (2387496-00-4)
- Methyl (1-(diethylamino)ethylidene)phosphoramidofluoridate (2387496-04-8)
- Ethyl (1-(diethylamino)ethylidene)phosphoramidofluoridate (2387496-06-0)
- (15) Methyl-(bis(diethylamino)methylene)phosphonamidofluoridate (2387496-14-0)
- (16) Carbamates (quaternaries and bisquaternaries of

dimethylcarbamoyloxy pyridines) Quaternaries of  
 dimethylcarbamoyloxy pyridines:

1-[N,N-dialkyl( $\leq$ C10)-N-(n-(hydroxyl, cyano, acetoxy)alkyl( $\leq$ C10)) ammonio]-n-  
 [N-(3-dimethylcarbamoyloxy- $\alpha$ -picolinyl)-N,N-dialkyl( $\leq$ C10) ammonio]decane  
 dibromide (n=1-8)

e.g. 1-[N,N-dimethyl-N-(2-hydroxy)ethylammonio]-10-[N-(3-  
 dimethylcarbamoyloxy- $\alpha$ -picolinyl)-N,N-dimethylammonio]decane dibromide  
 (77104-62-2)

Bisquaternaries of dimethylcarbamoyloxy pyridines: 1,n-Bis[N-(3-  
 dimethylcarbamoyloxy- $\alpha$ -picolinyl)-N,N-dialkyl( $\leq$ C10) ammonio]- alkane-  
 (2,(n-1)-dione) dibromide (n=2-12)

e.g. 1,10-Bis[N-(3-dimethylcarbamoyloxy- $\alpha$ -picolinyl)-N-ethyl-N-  
 methylammonio]decane- 2,9-dione dibromide (77104-00-8)

#### B. Precursors:

(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)

(11) Chlorosarin: O-Isopropyl methylphosphonochloridate (1445-76-7)

(12) Chlorosoman: O-Pinacolyl methylphosphonochloridate (7040-57-5)



**ANNEXURE B****Schedule 2 of the Chemical Weapons Convention**(Chemical Abstracts Service  
Registry Number)**A. Toxic chemicals:**

- (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. Precursors:**

- (1) 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, such as

|                             |             |
|-----------------------------|-------------|
| Methylphosphonyl dichloride | (676-97-1)  |
| Dimethyl methylphosphonate  | (756-79-6)  |
| Diethyl ethylphosphonate    | (78-38-6)   |
| Ethylphosphinyl dichloride  | (1498-40-4) |
| Ethylphosphonyl dichloride  | (1066-50-8) |
| Methylphosphinyl dichloride | (676-83-5)  |
| Ethylphosphinyl difluoride  | (430-78-4)  |
| Methylphosphinyl difluoride | (753-59-3)  |
| Methylphosphonic acid       | (993-13-5)  |

|      |   |              |
|------|---|--------------|
|      | Methylphosphonothioic dichloride  | (676-98-2)   |
|      | Diethyl methylphosphonite   | (15715-41-0) |
|      | Dimethyl ethylphosphonate   | (6163-75-3)  |
|      | <b>Exemption:</b>   |              |
|      | <b>Fonofos:</b>   |              |
|      | O-Ethyl S-phenyl ethylphosphonothiolothionate   | (944-22-9)   |
| (2)  | N,N-Dialkyl (Methyl, Ethyl, n-Propyl or Isopropyl) phosphoramidic dihalides   |              |
| (3)  | Dialkyl (Methyl, Ethyl, n-Propyl or Isopropyl) N,N-dialkyl (Methyl, Ethyl, n-Propyl or Isopropyl)-phosphoramidates, such as |              |
|      | Diethyl N,N-dimethylphosphoramidate   | (2404-03-7)  |
| (4)  | Arsenic trichloride   | (7784-34-1)  |
| (5)  | 2,2-Diphenyl-2-hydroxyacetic acid (Benzilic acid)   | (76-93-7)    |
| (6)  | Quinuclidin-3-ol  | (1619-34-7)  |
| (10) | N,N-Dialkyl (Methyl, Ethyl, n-Propyl or Isopropyl) aminoethyl-2-chlorides and corresponding protonated salts, such as       |              |
|      | N,N-Diisopropyl-(beta)-aminoethyl chloride  | (96-79-7)    |
|      | N,N-Diisopropyl-2-aminoethyl chloride hydrochloride   | (4261-68-1)  |
|      | N,N-Dimethylaminophosphoryl dichloride  | (676-98-2)   |
| (11) | N,N-Dialkyl (Methyl, Ethyl, n-Propyl or Isopropyl) aminoethane-2-ols and corresponding protonated salts, such as            |              |
|      | N,N-Diisopropyl-(beta)-aminoethanol   | (96-80-0)    |

**Exemptions:**

- |      |   |             |
|------|---|-------------|
|      | N,N-Dimethylaminoethanol  | (108-01-0)  |
|      | and corresponding protonated salts  |             |
|      | Protonated salts of N,N-Diethylaminoethanol   | (100-37-8)  |
| (12) | N,N-Dialkyl (Methyl, Ethyl, n-Propyl or Isopropyl) aminoethane-2-thiols and corresponding protonated salts, such as |             |
|      | N,N-Diisopropyl-(beta)-aminoethane thiol  | (5842-07-9) |
| (13) | Thiodiglycol:   |             |
|      | Bis (2-hydroxyethyl) sulphide   | (111-48-8)  |
| (14) | Pinacolyl alcohol:  |             |
|      | 3,3-Dimethylbutan-2-ol  | (464-07-3)  |

**ANNEXURE C****Schedule 3 of the Chemical Weapons Convention**

(Chemical Abstracts Service  
Registry Number)

**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) | Sulphur monochloride     | (10025-67-9) |
| (13) | Sulphur 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)  |

**ANNEXURE D**

(Chemical Abstracts Service  
Registry Number)

**Toxic chemicals:**

- |      |                              |             |
|------|------------------------------|-------------|
| (1)  | 3-Hydroxy-1-methylpiperidine | (3554-74-3) |
| (2)  | Potassium fluoride           | (7789-23-3) |
| (3)  | 2-Chloroethanol              | (107-07-3)  |
| (4)  | Dimethylamine                | (124-40-3)  |
| (5)  | Dimethylamine hydrochloride  | (506-59-2)  |
| (6)  | Hydrogen fluoride            | (7664-39-3) |
| (7)  | Methyl benzilate             | (76-89-1)   |
| (8)  | 3-Quinuclidone               | (3731-38-2) |
| (9)  | Pinacolone                   | (75-97-8)   |
| (10) | Potassium cyanide            | (151-50-8)  |
| (11) | Potassium bifluoride         | (7789-29-9) |
| (12) | Ammonium bifluoride          | (1341-49-7) |
| (13) | Sodium bifluoride            | (1333-83-1) |
| (14) | Sodium fluoride              | (7681-49-4) |
| (15) | Sodium cyanide               | (143-33-9)  |

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|      |                                |              |
|------|--------------------------------|--------------|
| (16) | Phosphorus pentasulphide       | (1314-80-3)  |
| (17) | Di-isopropylamine              | (108-18-9)   |
| (18) | Diethylaminoethanol            | (100-37-8)   |
| (19) | Sodium sulphide                | (1313-82-2)  |
| (20) | Triethanolamine hydrochloride  | (637-39-8)   |
| (21) | Triisopropyl phosphite         | (116-17-6)   |
| (22) | O,O-Diethyl phosphorothioate   | (2465-65-8)  |
| (23) | O,O-Diethyl phosphorodithioate | (298-06-6)   |
| (24) | Sodium hexafluorosilicate      | (16893-85-9) |

**ANNEXURE E**

(Chemical Abstracts Service  
Registry Number)

**Riot Control Agents**

Riot control agents as follows:

- |      |  |             |
|------|--|-------------|
| (1)  | $\alpha$ -Bromobenzeneacetonitrile,<br>(Bromobenzyl cyanide), (CA)   | (5798-79-8) |
| (2)  | 2-Chloro-1-phenyl-ethanone, (Phenylacyl chloride),<br>( <i>o</i> -chloroacetophenone), (CN)  | (532-27-4)  |
| (3)  | [(2-chlorophenyl)-methylene] propanedinitrile,<br>( <i>o</i> -Chlorobenzylidenemalonitrile), (CS)                                      | (2698-41-1) |
| (4)  | Dibenz (b,f)-1,4-oxazepine, (CR)   | (257-07-8)  |
| (5)  | Diphenylaminochloroarsine, (10-Chloro-5,10-dihydrophen-<br>arsazine), (Phenarsazine chloride), (Adamsite), (DM)                        | (578-94-9)  |
| (6)  | N-nonanylmorpholine, (MPA)   | (5299-64-9) |
| (7)  | trans-8-Methyl-N-vanillyl-6-nonenamide, (Capsaicin), (Pepper<br>Spray), [N-(4-hydroxy-3-methoxy benzyl)-8-methyl-non-trans-6-enamide], | (404-86-4)  |
| (8)  | Ethyl bromoacetate, (EBA)  | (105-36-2)  |
| (9)  | Pelargonic acid vanillylamide  | (2444-46-4) |
| (10) | Phenyl chloride  | (108-90-7)  |



- (11) Mixture of OC and CS
- (12) Oleoresin capsicum (OC) (8023-77-6)
- (13) 8-Methyl-N-vanillynonamide  
(dihydrocapsaicin) (19408-84-5)
- (14) N-Vanillyl-9-methyldec-7-(E)-enamide  
(homocapsaicin) (58493-48-4)
- (15) N-Vanillyl-9-methyldecanamide  
(homodihydrocapsaicin) (20279-06-5)
- (16) N-Vanillyl-7-methyloctanamide  
(nordihydrocapsaicin) (28789-35-7)
- (17) 2'-Chloroacetophenone (2142-68-9)
- (18) 3'-Chloroacetophenone (99-02-5)
- (19)  $\alpha$ -Chlorobenzylidenemalononitrile (18270-61-6)
- (20) Cis-4-acetylamino-dicyclohexylmethane (37794-87-9)
- (21) N,N'-Bis (isopropyl) ethylenediimine (E,E 28227-41-0; Z,Z 185245-09-4)
- (22) N,N'-Bis (tert-butyl) ethylenediimine (30834-74-3; E,E 28227-42-1)

**ANNEXURE F**

(Chemical Abstracts Service  
Registry Number)

**Anti-plant agents:**

Anti-plant agents as follows:

- |     |   |             |
|-----|---|-------------|
| (1) | Butyl 2-chloro-4-fluorophenoxyacetate (LNF)     | (1692-85-9) |
| (2) | Mixtures of 2,4,5-T and 2,4-D where:            |             |
|     | 2,4,5-T: 2,4,5-Trichlorophenoxyacetic acid      | (93-76-5)   |
|     | 2,4-D: 2,4-Dichlorophenoxyacetic acid           | (94-75-7)   |
| (3) | Mixtures of Picloram where:                     |             |
|     | Picloram: 4-Amino-3,5,6-trichloropicolinic acid | (1918-02-1) |
| (4) | Dimethylarsinic acid (Cacodylic acid)           | (75-60-5)   |