

Schedule 1 Quiz Answer Key



OPCW

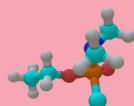
Organisation for the Prohibition of Chemical Weapons

S1-6
Sarin



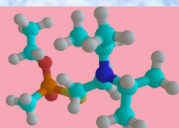
1A(1) O-Alkyl (<C10, incl. cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr) phosphonofluoridates

S1-5
Tabun



1A(2) O-Alkyl (<C10, incl. cycloalkyl) N,N-dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidocyanidates

S1-1 **VX**



1A(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

1A(5) : Lewisites

S1-21

Lewisite 1:
2-Chlorovinyl dichloroarsine

S1-14

Lewisite 2:
Bis(2-chlorovinyl)chloroarsine

S1-17

Lewisite 3:
Tris(2-chlorovinyl)arsine

1A(6) : Nitrogen mustards

S1-8

HN1:
Bis(2-chloroethyl)ethylamine

S1-13

HN2:
Bis(2-chloroethyl)methylamine

S1-7

HN3:
Tris(2-chloroethyl)amine

1A(4) : Sulfur mustards

2-Chloroethylchloromethylsulfide



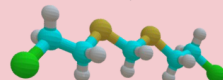
S1-4

Mustard gas: Bis(2-chloroethyl)sulfide

S1-15



Bis(2-chloroethylthio)methane



S1-23

Sesquimustard: 1,2-Bis(2-chloroethylthio)ethane

S1-10

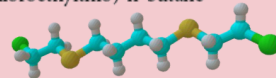


1,3-Bis(2-chloroethylthio)-n-propane



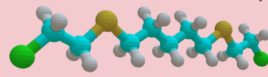
S1-18

1,4-Bis(2-chloroethylthio)-n-butane



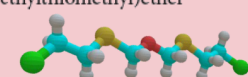
S1-9

1,5-Bis(2-chloroethylthio)-n-pentane



S1-19

Bis(2-chloroethylthiomethyl)ether



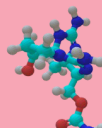
S1-12

O-Mustard: Bis(2-chloroethylthioethyl)ether



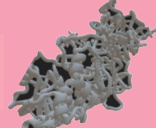
S1-24

S1-11



1A(7) : Saxitoxin

S1-16



1A(8) : Ricin

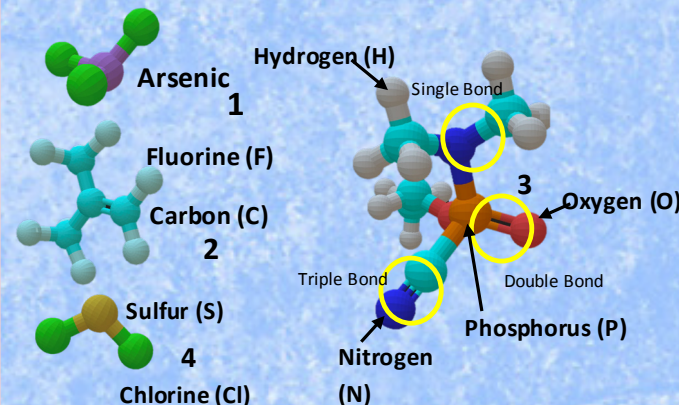
Reading Molecular Structures in Augmented Reality

Atomic Color Code

C: H: S:
N: P: As:
Cl: F: O:

Bonds

Tabun (3) has single, double and triple bonds. Each bond type has been circled and labelled so you know what to look for!



S1-2

DF

1B(9) Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldifluorides

S1-22

1B(11) : Chlorosarin
O-Isopropyl methylphosphonochloridate

S1-20 **QL**

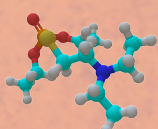
1B(10) O-Alkyl (H or <C10, incl. cycloalkyl) O-2-dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl alkyl (Me, Et, n-Pr or i-Pr) phosphonites and corresponding alkylated or protonated salts

S1-3

1B(12) : Chlorosoman
O-Pinacolyl methylphosphonochloridate

Schedule 2 Quiz Answer Key

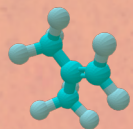
S2-18



2A(1) : Amiton

O,O-Diethyl S-[2-(diethylamino)ethyl] phosphorothiolate and corresponding alkylated or protonated salts

S2-8



2A(2) : PFIB

1,1,3,3,3-Pentafluoro-2-(tri-fluoromethyl)-1-propene

(S)-(-)-3-Quinuclidinol

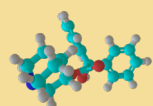
S2-13

2B(9)
Quinuclidin-3-ol

(R)-(+)-3-quinuclidinol

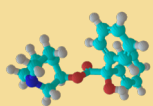
S2-4

S2-16



(S)-(+)-3-Quinuclidinyl benzilate*
2A(3)* : BZ
3-Quinuclidinyl benzilate

S2-1



(R)-(-)-3-Quinuclidinyl benzilate*

2B(10)

N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides and corresponding protonated salts

S2-2

2-chloro-N,N-dimethylethan-1-amine

S2-15



S2-15: Dichloro(methyl)phosphane

S2-11: Tetrachloro(methyl)phosphane

S2-9: N-[bis(dimethylamino)methylidene]-P-methyl-phosphonofluoridamidic acid

2B(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. (Exemption: Fonofos = O-Ethyl S-phenyl ethylphosphosphonate)

S2-11



S2-9



2-(ethylmethylamino)ethan-1-ol

2B(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

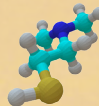
S2-10

N,N-Diethylaminoethanol and corresponding protonated salts

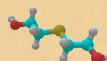
2B(12)

N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols and corresponding protonated salts

S2-17



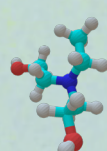
2-(dimethylamino)ethan-1-thiol



S2-14 Thiodiglycol: 2B(13)
Bis(2-hydroxyethyl)sulfide

Pinacolyl alcohol: 2B(14)
3,3-Dimethylbutan-2-ol

S2-5



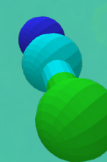
S3-16

3B(15)
Ethylthioethanolamine



S3-12

3A(1) : Phosgene
Carbonyl dichloride



S3-5

3A(2)
Cyanogen chloride

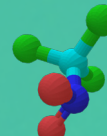
S3-7



3A(3)

Hydrogen cyanide

S3-13

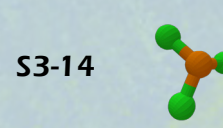


3A(4) : Chloropicrin
Trichloronitromethane



3B(5)

Phosphorus oxychloride

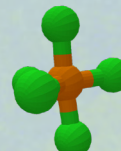


S3-14

3B(6)

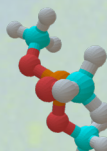
Phosphorus trichloride

S3-11



3B(7)

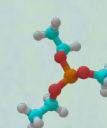
Phosphorus pentachloride



S3-9

3B(8)

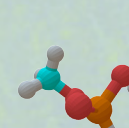
Trimethyl phosphite



S3-17

3B(9)

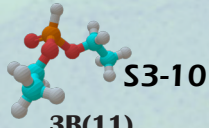
Triethyl phosphite



S3-1

3B(10)

Dimethyl phosphite



S3-10

3B(11)
Diethyl phosphite

S3-6



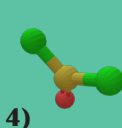
3B(12)
Sulfur monochloride

S3-15

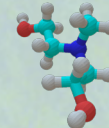


3B(13)
Sulfur dichloride

S3-2

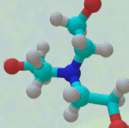


3B(14)
Thionyl chloride



S3-8

3B(16)
Methylthioethanolamine



S3-4

3B(17)
Triethanolamine

Schedule 3 Quiz Answer Key

Scheduled Chemicals under the Chemical Weapons Convention (CWC)

Schedule 1

Guidelines for Schedule 1

The following criteria shall be taken into account in considering whether a toxic chemical or precursor should be included in Schedule 1:

- It has been developed, produced, stockpiled or used as a chemical weapon as defined in Article II;
- It poses otherwise a high risk to the object and purpose of this Convention by virtue of its high potential for use in activities prohibited under this Convention because one or more of the following conditions are met:
 - It possesses a chemical structure closely related to that of other toxic chemicals listed in Schedule 1, and has, or can be expected to have, comparable properties;
 - It possesses such lethal or incapacitating toxicity as well as other properties that would enable it to be used as a chemical weapon;
 - It may be used as a precursor in the final single technological stage of production of a toxic chemical listed in Schedule 1, regardless of whether this stage takes place in facilities, in munitions or elsewhere;
- It has little or no use for purposes not prohibited under this Convention.

Schedule 1 Part A, Toxic Chemicals

