

Laboratory	VERTOX Laboratory, Defence R & D Establishment (DRDE), Jhansi Road, Gwalior, Madhya Pradesh		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	23.05.2015
Certificate Number	T-0239	Valid Until	22.05.2017
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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I. WARFARE CHEMICALS				
1.	Soil	Qualitative analysis of chemicals listed as Schedule 1, 2, 3 (Appendix 1)	ROP/2011 (ISBN 978-952-10-7407-3 University of Helsinki, Finland)	Qualitative (Presence/Absence)
2.	Water	Qualitative analysis of chemicals listed as Schedule 1, 2, 3 (Appendix 1)	ROP/2011 (ISBN 978-952-10-7407-3 University of Helsinki, Finland)	Qualitative (Presence/Absence)
3.	Organic Liquid	Qualitative analysis of chemicals listed as Schedule 1, 2, 3 (Appendix 1)	ROP/2011 (ISBN 978-952-10-7407-3 University of Helsinki, Finland)	Qualitative (Presence/Absence)
4.	Polymer	Qualitative analysis of chemicals listed as Schedule 1, 2, 3 (Appendix 1)	ROP/2011 (ISBN 978-952-10-7407-3 University of Helsinki, Finland)	Qualitative (Presence/Absence)
5.	Wipe	Qualitative analysis of chemicals listed as Schedule 1, 2, 3 (Appendix 1)	ROP/2011 (ISBN 978-952-10-7407-3 University of Helsinki, Finland)	Qualitative (Presence/Absence)

Appendix 1

List of Chemicals : Schedule 1

- O-Alkyl ($\leq C_{10}$ including cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr) Phosphonofluoridates
- O-Alkyl ($\leq C_{10}$ including cycloalkyl) N,N-dialkyl (Me, Et, n-Pr or i-Pr) Phosphoramidocyanidate
- O-Alkyl ($\leq C_{10}$ including cycloalkyl) S-2-dialkyl (Me, Et, n-Pr or i-Pr) aminoethylalkyl (Me, Et, n-Pr or i-Pr) Phosphonothiolates
- Sulphur mustards :
 - 2-Chloroethyl chloromethyl sulphide
 - Bis(2-chloroethyl)sulphide
 - Bis(2-chloroethylthio)methane
 - 1,2-Bis(2-chloroethylthio)ethane

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		1,3-Bis(2-chloroethylthio)-n-propane		
		1,4-Bis(2-chloroethylthio)-n-butane		
		1,5-Bis(2-chloroethylthio)-n-pentane		
		Bis(2-chloroethylthiomethyl) ether		
		Bis(2-chloroethylthioethyl) ether		
5.	Lewisites :			
		2-Chlorovinyl dichloroarsine		
		Bis(2-chlorovinyl) chloroarsine		
		Tris(2-chlorovinyl)arsine		
6.	Nitrogen mustards			
		Bis(2-chloroethyl)ethylamine		
		Bis(chloroethyl)methylamine		
		Tris(2-chloroethyl)amine		
7.	Alkyl(Me, Et, n-Pr or i-Pr) phosphonyl difluorides			
8.	O-Alkyl(H or $\leq C_{10}$ including cycloalkyl) O-2-dialkyl(Me, Et, n-Pr or i-Pr)aminoethyl alkyl(Me, Et, n-Pr or i-Pr) Phosphonites			
9.	Chlorosarin			
10.	Chlorosoman			

List of Chemicals : Schedule 2

- O,O-Diethyl-S-[2-(diethylamino)ethyl] phosphorothiolate (Amiton)
- 1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene (PFIB)
- 3-Quinuclidinyl benzilate (BZ)
- Organophosphorus chemicals having P-C(Me, Et, n-Pr or i-Pr) group
- N,N-Dialkyl(Me, Et, n-Pr or i-Pr)phosphoramidic dihalides
- Dialkyl(Me, Et, n-Pr or i-Pr)N,N-dialkyl(Me, Et, n-Pr or i-Pr)phosphoramidates
- Arsenic trichloride
- 2,2-Diphenyl-2-hydroxyacetic acid
- Quinuclidine-3-ol
- N,N-Dialkyl(Me, Et, n-Pr or i-Pr)aminoethyl-2-chlorides
- N,N-Dialkyl(Me, Et, n-Pr or i-Pr)aminoethane-2-ols
- N,N-Dialkyl(Me, Et, n-Pr or i-Pr)aminoethane-2-thiols
- Thiodiglycol
- Pinacolyl alcohol

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List of Chemicals : Schedule 3

1. Phosgene
2. Cyanogen chloride
3. Hydrogen cyanide
4. Trichloronitromethane (Chloropicrin)
5. Phosphorus oxychloride
6. Phosphorus trichloride
7. Phosphorus pentachloride
8. Trimethyl phosphite
9. Triethyl phosphite
10. Dimethyl phosphite
11. Diethyl phosphite
12. Sulphur monochloride
13. Sulphur dichloride
14. Thionyl chloride
15. Ethyldiethanolamine
16. Methyldiethanolamine
17. Triethanolamine

Degradation products of these schedule chemicals which can be linked to their precursors by holding the basic skeleton.

~~-X-X-X-X-X-X-X-X-X-X-X-X-~~