Key References Cited/Used in National Response Team (NRT) Quick Reference Guides (QRGs) for Chemical Warfare Agents. GA (Tabun), GB (Sarin), GD (Soman), GF (Cyclosarin), Agent VX, HD (Sulfur Mustard), Lewisite (L), and Mustard-Lewisite Mixture (HL) 2015 Revision

The following references are not intended to be an exhaustive list or critical review of the literature. Instead, these Key References are intended to provide sources that support the statements and provide potential added relevant detail pertaining to the section topic and agent specified in the QRGs. The reader will recognize that the literature sometimes represents multiple opinions, as frequently is the case in scientific literature, to alert the reader to the opinions available on the topic. Often this range is a result of the original literature being intended for a broad range of purposes. The reader should note that the QRGs represent a subject matter expert consensus of these opinions, focused on the specific purpose of the QRG, which is to inform Federal On-Scene Coordinators (OSCs) of important information about the agents that may be useful to their activities during their first 24-48 hours on site. After this initial period, it is thought that additional resources and subject matter experts will be available to the OSCs.

Reference Documents	<u>General</u>	<u>G-Agents</u>	<u>VX</u>	<u>HD</u>	<u>L</u>	<u>HL</u>
Agent Characteristics						
Agency for Toxic Substances and Disease Registry. Blister Agents Lewisite (L) (C ₂ H ₂ AsCl ₃) CAS 541-25-3, UN					√	√
1556; and Mustard-Lewisite Mixture (HL) CAS Number not available, UN 2810.						
National Research Council. 1995. <u>Guidelines for Chemical Warfare Agents in Military Field Drinking Water</u> . Washington, DC: National Academy Press.					✓	✓
Army, Marine Corps, Navy, Air Force. January 2005. FM 3-11.9. Potential Military Chemical/Biological Agents and						
Compounds. US Army Chemical School, Ft. Leonard Wood, MO.		✓	✓	✓	✓	✓
National Research Council/Committee on Toxicology. 2003. Acute Exposure Guidelines for Selected Airborne Chemicals, Vol 3. Washington, DC: The National Academies Press.	✓	✓	✓	✓		
Department of the Army Field Manual 3-11.5. April 2006. CBRN Decontamination: Multi-Service Tactics, Techniques, and Procedures. US Army Chemical School, Ft. Leonard Wood, MO.	✓	✓	✓	✓	✓	
ATSDR. 2003. Toxicological Profile for Sulfur Mustard (Update). US Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry (ATSDR), Atlanta, GA.				✓		
<u>USACHPPM. 2008</u> . <i>Technical Guide 244: The Medical CBRN Battlebook</i> . U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM). October 2008.	✓	✓	✓	✓	✓	
US Department of Army Material Data Safety Sheets (MSDS) for chemical agents. See Appendix A in: U.S. Senate Committee on Banking, Housing, and Urban Affairs, U.S. Chemical and Biological Warfare-Related Dual-Use Exports to Iraq and Their Possible Impact on the Health Consequences of the Persian Gulf War, May 25, 1994.		~	✓	√		
US Department of the Army. February 2007. <i>Medical Management of Chemical Casualties Handbook</i> , 4th Edition. US Army Medical Research Institute of Chemical Defense, Chemical Casualty Care Division, Aberdeen Proving Ground, MD.	✓	~	✓	√	✓	
Munro NB, et al. 1999. "The Sources, Fate, and Toxicity of Chemical Warfare Agent Degradation Products," Environmental Health Perspectives. 107(12): 933-974.	✓	✓	✓	✓	✓	
US Department of the Army. 1997. Textbook of Military Medicine (TBMM): Part 1, Medical Aspects of Chemical and Biological Warfare. Office of the Surgeon General, Walter Reed Army Medical Center, Washington, DC.	✓	✓	✓	✓	✓	
Kingery AF and HE Allen. 1995. "The Environmental Fate of Organophosphate Nerve Agents: A Review," Toxicological and Environmental Chemistry. 47: 155-184.		✓	✓			
Williams JM, B Rowland, MT Jeffery, et al. 2005. "Degradation Kinetics of VX on Concrete by Secondary Ion Mass Spectrometry," Langmuir. 21(6): 2386-2390.			✓			
Talmage SS, et al. 2007. "The Fate of Chemical Warfare Agents in the Environment," pp. 89-125. In: TC Marrs, et al. (eds.) 2007. Chemical Warfare Agents: Toxicology and Treatment (2nd Edition). Chichester, UK: John Wiley and Sons, Ltd.	✓	√	√	√		
National Research Council/Institute of Medicine. 1993. Veterans at Risk: The Health Effects of Mustard Gas and Lewisite. CM Pechura and DP Rall (eds.) Washington, DC: National Academy Press.				✓	✓	
Goldman M and JC Dacre. 1989. "Lewisite: It's Chemistry, Toxicology, and Biological Effects," Reviews of Environmental Contamination and Toxicology. 110: 76-115.					✓	
Reddy G, et al. 2005. "Toxicity Assessment of Thiodiglycol," International Journal of Toxicology. 24(6): 435-42. (note: thiodiglycol is degradation product of HD)				✓		
Michel HO, et al. 1962. <i>EA 2192: A Novel Anticholinesterase</i> . CRDLR 3125. US Army Chemical and Research Laboratories, Army Chemical Center, Aberdeen Proving Ground, MD.			✓			
Emergency Response Safety and Health Database, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention. (last accessed April 2015)	✓	✓	✓	✓	✓	✓
Hazardous Substances Data Bank (HSDB), US National Library of Medicine, National Institutes of Health, US Department of Health and Human Services. (last accessed April 2015)		✓	✓	✓	✓	
<u>Water Security; Emergency/Incident Planning, Response, and Recovery,</u> US Environmental Protection Agency. (last accessed April 2015)	✓	✓	✓	✓	✓	
Chemical Hazards Emergency Medical Management (CHEMM), US Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response; in cooperation with National Library of Medicine. (last accessed April 2015)	✓	√	√	√		
Medical Management Guidelines (MMGs) for Acute Chemical Exposures, Agency for Toxic Substances and Disease Registry. (last accessed April 2015)	✓	✓	✓	✓	✓	

Reference Documents	General	G-Agents	<u>VX</u>	HD	<u>L</u>	<u>HL</u>
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US Army Chemical School, Ft. McClellan, AL. Release Scenarios						
Personal Communication. From: Morrissey, Kevin M CTR (US) to Matthew Magnuson/CI/USEPA/USEPA. Date:						1
02/10/2012 02:04 PM. Subject: RE: Water Fate and Phosphate Buffer Work at ECBC (UNCLASSIFIED)						Ľ
"Chemical Agents as Weapons of Terror Rather Than as Weapons of Mass Destruction," pp. 12-15 of Congressional Research Service (CRS) Report for Congress. "High-Threat Chemical Agents: Characteristics,	✓	✓	✓	✓	✓	
Effects, and Policy Implications." Updated September 9, 2003. CRS, The Library of Congress. Sokolski H. 2000. "Rethinking Bio-Chemical Dangers," pp. 182-195. In: America the Vulnerable: Our Military						
Problems and How to Fix Them, JF Lehman and H Sicherman (eds.) 2000. Philadelphia, PA: Foreign Policy Research Institute. (note: discusses size of event required for casualty production)	✓	✓	✓	✓		
<u>USAPHC. 2015</u> . Technical Guide 195: Safety and Health Guidance for Mortuary Affairs Operations: Infectious Materials and CBRN Handling. U.S. Army Public Health Command (USAPHC). November 2015.	✓					
<u>USACHPPM. 2008</u> . <i>Technical Guide 244: The Medical CBRN Battlebook</i> . U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM). October 2008.	✓					
US Congress, Office of Technology Assessment. December 1993. Technologies Underlying Weapons of Mass Destruction. OTA-BP-ISC-115. Washington, DC: US Government Printing Office.	✓					
Watson A, et al. 2006. "Cholinesterase Inhibitors as Chemical Warfare Agents: Community Planning Guidelines,"						
pp. 47-68. In: R. Gupta (ed.) 2006. <i>Toxicology of Organophosphate & Carbamate Compounds</i> . Elsevier Academic Press.	✓	✓	✓			
Chemical Stockpile Emergency Preparedness Program, Federal Emergency Management Agency. (last accessed April 2015)	✓					
Talmage SS, et al. 2007. "The Fate of Chemical Warfare Agents in the Environment," pp. 89-125. In: TC Marrs, et						
al. (eds.) 2007. Chemical Warfare Agents: Toxicology and Treatment (2nd Edition). Chichester, UK: John Wiley and Sons, Ltd.		✓	✓	✓		
<u>Talmage SS, et al. 2007 (b).</u> "Chemical Warfare Agent Degradation and Decontamination," <i>Current Organic Chemistry</i> . 11(3): 285-298.		✓	✓	✓		
US Department of Homeland Security. September 2007. <u>National Preparedness Guidelines</u> .	✓					
Hazardous Substances Data Bank (HSDB), US National Library of Medicine, National Institutes of Health, US Department of Health and Human Services. (last accessed April 2015)		✓	✓	✓	✓	
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<u>Communities</u> . Washington, DC: Chemical Defense Program, DHS Office of Health Affairs; and HHS Office of Assistant Secretary for Preparedness and Response.						
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1556; and Mustard-Lewisite Mixture (HL) CAS Number not available, UN 2810.					✓	✓
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Emergency Response Safety and Health Database, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention. (last accessed April 2015)	✓	✓	✓	✓	✓	
US Department of the Army. February 2007. <u>Medical Management of Chemical Casualties Handbook</u> , 4th Edition. US Army Medical Research Institute of Chemical Defense, Chemical Casualty Care Division, Aberdeen Proving	✓	√	√	√	✓	
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Lewisite. CM Pechura and DP Rall (eds.) Washington, DC: National Academy Press. US Department of the Army. 1997. Textbook of Military Medicine (TBMM): Part 1, Medical Aspects of Chemical				✓	✓	
and Biological Warfare. Office of the Surgeon General, Walter Reed Army Medical Center, Washington, DC.	✓	✓	✓	✓	✓	
Michel HO, et al. 1962. <i>EA 2192: A Novel Anticholinesterase</i> . CRDLR 3125. US Army Chemical and Research Laboratories, Army Chemical Center, Aberdeen Proving Ground, MD.			✓			
Reddy G, et al. 2005. "Toxicity Assessment of Thiodiglycol," <i>International Journal of Toxicology</i> . 24(6): 435-42. (note: thiodiglycol is degradation product of HD)				✓		

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Chemical Hazards Emergency Medical Management (CHEMM), US Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response; in cooperation with National Library of Medicine. (last accessed April 2015)	√	✓	✓	√		
Medical Management Guidelines (MMGs) for Acute Chemical Exposures, Agency for Toxic Substances and Disease Registry. (last accessed April 2015)	✓	✓	✓	✓	✓	
SOIL:		1		1		
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Department of the Army, Memorandum, April 1, 2009. Subject: Interim Guidance for Chemical Warfare Material (CMW) Responses.	✓	✓	✓	✓	✓	
US Department of the Army Pamphlet (DA- PAM) 385-61. November 13, 2012. Toxic Chemical Agent Safety Standards. (supersedes DA-PAM dated December 17, 2008).	✓	✓	✓	✓	✓	
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National Research Council. 1995. <u>Guidelines for Chemical Warfare Agents in Military Field Drinking Water</u> . Washington, DC: National Academy Press.		✓	✓	✓		
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Chemical-Warfare Agents. Washington, DC: National Academy Press.		✓	✓	✓		

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Exercision March 2007 Chamical Wedner Approxis Current Status of Oral Netherland Report Health Research Perfections of Chamical Wedner Apples (SCHPPP) Technical Report Health Research Environmental Screening Levels V			✓	✓	✓	✓	
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Chemical Stockpile Emergency Preparedness Program, Federal Emergency Management Agency, (last accessed April 2015)	<u>USACHPPM. 2008</u> . Technical Guide 244: The Medical CBRN Battlebook. U.S. Army Center for Health Promotion	✓	✓	✓	✓	✓	
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Verification US Department of Energy, Lawrence Livermore National Laboratory, UCRL-AR-143245. Very Author National College (In Chairman College) Very Author National College (In College) Very Author National College) Very Author National College (In College) Very Author National College) Very Author National College (In College) Very Author National College (In College) Very Author National College) Very Author National College) Very Author National College (In College) Very Author National College) Very Author National College (In College) Very Author National College) Very Author National College (In College) Very Author National College) Very Author National College (In College) Very Author National College) Very Author National College (In College) Very Author National College) Very Au	April 2015)	V					
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				✓			

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Note: For HL, the H and L references were considered in creating the HL entries for the various sections. When HL is specifically checked, this means the reference refers to specific information about the mixture.