RECOVERED CHEMICAL MATERIEL DIRECTORATE FACT SHEET

MUNITIONS

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World War I munitions: projectiles

Most World War I Chemical Munitions were designed at the former Camp American University in Washington, D.C., and produced at Edgewood Arsenal, Maryland, or a commercial production facility. Testing of World War I chemical munitions occurred at firing ranges on military installations within the United States. Occasional recoveries of unexploded rounds occur on these ranges. In addition to firing ranges, current and former military installations typically recover obsolete buried munitions.

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A gray body distinguishes the projectile with red, white or yellow bands to identify the type of chemical agent. Further detail displayed in black-stencil markings read **"SPECIAL GAS"** or **"SMOKE."**

The 75 mm projectile measures approximately 11 inches long, three inches in diameter and weighs up to 12.5 pounds depending on the type of chemical agent it contains. It also includes an adapter and booster casing that screw into the nose of the shell.

The 4.7-inch projectile measures approximately 17 inches long, 4.7 inches in diameter, and weighs up to 43.75 pounds. It resembles the 75 mm projectile.

World War II munitions: projectiles

Munitions found in the U.S. stockpile and around the country at recovered chemical weapons sites may include the 105 mm and 155 mm projectiles, two World War II-class chemical munitions.

The 105 mm and 155 mm projectiles typically contain mustard agent. Up to three colored bands, signifying the chemical agent within the munition, characterize their gray projectile bodies. In addition, words such as **"SPECIAL GAS"** may distinguish the munition body. The projectiles vary in size with the largest (the 155 mm) at approximately 23.5 inches long and six inches in diameter. They weigh up to 92 pounds.

The shell contains an adapter and booster casing that screw into the nose of the shell, also allowing a fuse to screw into the nose of the projectile.

The U.S. Army designed the 105 mm and 155 mm projectiles to replace the World War I 75 mm and 4.7-inch projectiles. These new projectiles retained the ability to withstand extreme temperatures and long-range chemical weapon attacks.

REV: 05062016

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Stokes Mortar













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4.2-inch mortar shell

In 1928, U.S. engineers developed the 4.2-inch mortar from the British Army's Stokes mortar, which they developed in response to gas cloud attacks in World War I.

The U.S. 4.2-inch mortar shell consists of a one-piece forged steel case projectile body with fuze, burster and tail assembly. The mustard agent remains sealed in the round with a steel burster well. The body contains a perforated vane assembly welded to the inside of the body, designed to accommodate the burster tube extending from the fuse. The tail assembly consists of a pressure plate and rotating disk, propelling charge, cartridge container, ignition cartridge and striker nut assembly.

The 4.2-inch mortar shell measures 21 inches long with its fuze. Most munition bodies appear gray, although a few look olive green. Some 4.2-inch mortars display yellow, green and red bands denoting their chemical fill (if any).

Pueblo Chemical Depot, Colorado, stores these munitions until elimination at the Pueblo Chemical Agent Pilot Plant.

If you encounter these items, please call your local emergency personnel. Do not touch or move these items as they may contain chemical agent.



4.2-inch mortar shell



4.2-inch mortar shell model

