



FACT SHEET

Office of the
Assistant Secretary of Defense (Health Affairs)
Deployment Health Support Directorate

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Deseret Test Center

DTC Test 74-10, Phase II

Shortly after President Kennedy's inauguration in 1961, the Secretary of Defense, Robert McNamara, directed that a total review of the U.S. military be undertaken. The study consisted of 150 separate projects. The chemical and biological warfare review was known as Project 112. As part of the Project 112 review, the Joint Chiefs of Staff convened a working committee that recommended a research, testing, and development program for chemical and biological weapons. To oversee this program, the Deseret Test Center (DTC) was established at Fort Douglas, Utah, in 1962. Both land-based and ship-based tests were conducted during the period 1962 – 1973. The Deseret Test Center closed in 1973.

The purpose of DTC Test 74-10, Phase II was to assess the performance degradation of a marine wing weapons unit in a simulated toxic agent environment. Test objectives were to measure the comparative task efficiency of a nuclear assembly team (NAT) performing identical tasks under normal and simulated toxic conditions; to provide ground and vapor contamination levels that corresponded to expected levels found in a toxic rain attack; to measure contamination on the bomb dummy unit E6 (BDU-E6) and related equipment to determine if decontamination of the weapon was necessary; to determine whether the NAT contaminated the interior of the short airfield tactical protected shelters (SATS) with agent from contaminated protective clothing; and to determine the extent of loss of dimethylmethylphosphonate through evaporation with time.

The Department of Defense (DoD) is providing this information, at the request of the Department of Veterans Affairs (VA), to assist the VA in providing healthcare services to qualified veterans and to assist veterans in establishing service connection for disability claims. The Deployment Health Support Directorate (DHSD) collected this information from multiple sources and requested that the military services declassify it to allow its public distribution. The VA accepts this information provided on location, dates, units and/or ships, and substances involved in this exercise, which DHSD extracted from classified DoD records, and will provide it to individual veterans as necessary, but the VA cannot verify its accuracy.

Dimethylmethylphosphonate thickened with 2.3 percent polymethylmethacrylate and dyed with 0.5 percent oil red dye was used to simulate thickened Soman.

The thickened dimethylmethylphosphonate was disseminated using three pneumatic atomization nozzles mounted in a line.

The decontaminant used was a 10 percent solution of monoethanolamine in water with 0.3 percent Van Waters and Rogers 9N9 nonionic surfactant. One M12A1 power-driven decontamination apparatus was used to apply the decontamination solution to the SATS and the BDU-E6 training weapon.

DTC Test 74-10, Phase II, consisting of seven trials, was conducted in April and May 1974 at Dugway Proving Ground, Utah.

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Test Name	DTC Test 74-10, Phase II
Testing Organization	US Army Dugway Proving Ground, Utah
Test Dates	April – May 1974
Test Location	Dugway Proving Ground, Utah
Test Operations	DTC Test 74-10, Phase II consisted of seven trials. Thickened dimethylmethylphosphonate was disseminated using three pneumatic atomization nozzles mounted in a line.
Participating Services	US Army Dugway Proving Ground and US Marine Corps personnel
Units and Ships Involved	Not identified
Dissemination Procedures	Thickened dimethylmethylphosphonate was disseminated using three pneumatic atomization nozzles mounted in a line.
Agents, Simulants, Tracers	Dimethylmethylphosphonate Polymethylmethacrylate
Ancillary Testing	Not identified
Decontamination	One M12A1 power-driven decontamination apparatus (PDDA) was used to apply the monoethanolamine decontamination solution to the SATS and the BDU-E6 training weapon.
Potential Health Risks Associated with Agents, Simulants, Tracers	<u>Dimethylmethylphosphonate</u> Dimethylmethylphosphonate is used as a flame retardant, a preignition additive for gasoline, an antifoam agent, a plasticizer and stabilizer, a textile conditioner and antistatic agent, and an additive for solvents and low-temperature hydraulic fluids. May be harmful if inhaled, swallowed or absorbed through the skin. It is a suspected carcinogen. (Sources: http://ntp-server.niehs.nih.gov/htdocs/LT-studies/)

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[tr323.html](#) and http://physchem.ox.ac.uk/MSDS/DI/diemthyl_methylphosphonate.html [as of June 5, 2003]).

Polymethyl methacrylate

Polymethyl methacrylate is a clear plastic, used as a shatterproof replacement for glass. It is used in the production of Plexiglas® and Lucite®. Polymethyl methacrylate is also found in paint. Acrylic “latex” paints often contain polymethyl methacrylate suspended in water. Polymethyl methacrylate is a vinyl polymer, made by free radical vinyl polymerization from the monomer methyl methacrylate. (Source: <http://www.psrc.usm.edu/macrog/pmma.htm> [as of June 5, 2003]).

Monoethanolamine

Monoethanolamine is a clear liquid with an ammonia-like smell. It causes eye and skin burns, harmful or fatal if swallowed, may cause dizziness and drowsiness, causes respiratory tract irritation and possibly damage. Chronic exposure to the skin may cause a persistent irritation or dermatitis. Repeated inhalation may cause lung damage. (Source: Material Safety Data Sheet <http://www.astrochemicals.com/10129.pdf> [as of June 5, 2003]).

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