

## **The chemical treatment and decomposition technique of chemical warfare agents containing the arsenic**

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The chemical warfare agents containing arsenic has a possibility to cause the injury by an explosion of the bomb to some worker at the digging site of abandoned chemical weapon, and to give the health damage for resident of pollution area by the leakage of chemical agent rather than a possibility to use for terrorism. The old Japanese army made several chemical warfare agents containing arsenic during World War II at Ohkuno island Hiroshima, Japan, in defiance of an international treaty. As a chemical agent including the arsenic, lewisite (a irritating poisonous gas), DA ( diphenyl-chloroarsine, vomiting agent ), DC ( diphenylcyanoarsine, vomiting agent ) were produced by the army, and the main purpose was to use these chemicals in China. But these shells were abandoned to destroy promptly in the site of the battle in China after the end of the war II. Also, these shells were abandoned in some lake and the ocean in Japan. Then there is a threat caused from accidental explosion of deteriorating cannonballs filled up with chemical agent containing arsenic. Therefore chemical agents containing arsenic are processed with alkaline decomposition or oxidative decomposition, and arsenic is separated from solution. But a large quantity of chemical agents and the contaminated soil are processed by combustion, and industrial waste is treated with sulfur compounds as the insoluble sulfur arsenic complex. This paper introduce about the method of disposal of these organic arsenic agents till now in this symposium and want to consider the future prospects.