B74 Iodine Recovery From Povidone-Iodine Solutions and Its Use in Clandestine Methamphetamine Synthesis

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After attending this presentation, attendees will be familiar with elicit extraction methods used to remove iodine from Povidone-Iodine (PVP-I) solutions and its use in clandestine methamphetamine synthesis.

This presentation will impact the forensic community by demonstrating information on the use of PVP-I solutions to manufacture methamphetamine in clandestine laboratories by the conversion of pseudoephedrine/ephedrine utilizing the red phosphorus – iodine synthesis. The goal of this research is to provide definitive proof that iodine from PVP-I solutions can successfully be used to synthesize methamphetamine in a clandestine laboratory, providing a resource for the law enforcement, forensic and judicial communities.

Povidine-iodine (PVP-I) is an aqueous based polymer-iodine complex. The iodine is bound to the polymer as triiodide (I_3^-) to increase its solubility in aqueous solvents. PVP-I solutions are available under several different brand and generic names, the most common of which is Betadine®. It is intended primarily for use as an antiseptic based on the antimicrobial activity of iodine. PVP-I can be found in any grocery store or local pharmacy in the first aid section. It can also be found in the feminine hygiene section, marketed as medicated douche for the treatment of vaginitis.

Recent law enforcement intelligence has indicated the increase in the presence of PVP-I solutions along with other methamphetamine precursors. This experiment explores two methods of extracting iodine from PVP-I solutions. Both methods researched were located by a search of the internet and were easily accessible to the general public. The extracted iodine is then used to produce hydriodic acid and subsequently used to synthesize methamphetamine. One method of extraction which utilizes a modified distillation method was successful in extracting and collecting all of the available iodine in a PVP-I solution and the products were successfully used to produce a small batch of methamphetamine from pseudoephedrine. The research shows that although this method is possible, it is time consuming and requires a large amount of PVP-I solution to produce the required amounts of iodine which may inhibit its widespread use.

Methamphetamine, Iodine, Betadine

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