NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS DIVISION OF FIRE SAFETY OFFICE OF THE STATE FIRE MARSHAL



SAFETY ALERT

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SAFETY ALERT 13-1

Butane Hash Oil Extraction Hazards Issued January, 2013

Over the last few months, law enforcement agencies have noted a marked increase in calls for service related to the use of an improvised hash oil preparation method known within the marijuana user community as "BHO" or Butane Honey Oil extraction.

Honey oil is a concentrated substance derived from Cannabis (Marijuana). The texture varies from crystal (gloss) amber to gold resin (smoother). Hash oil is a resinous mixture of cannabinoids produced by a solvent extraction of Cannabis. Hash oil is a concentrated product with a high tetrahydrocannabinol (THC) content, the active ingredient in marijuana that produces the "high. Honey oil is a specific type of hash oil extracted with butane and is typically smoked.

The process involves the use of an extractor tube, which can either be purchased commercially or homemade. The tube is typically made out of 1.75" diameter PVC pipe, steel pipe, glass or plastic and is usually about 1' long. If PVC or metal pipe is used, end caps are also required. The finished appearance is similar to a pipe bomb. The extractor tube is filled with marijuana and a volatile solvent is injected into the top of the tube to extract a resinous mixture of cannabinoids. Individual solvents can include isopropyl alcohol, ethanol, methyl alcohol, and butane or isobutene. The resin collects at the bottom of the extractor which is usually lined with a coffee filter or other suitable screen, then removed and heated to evaporate the remaining solvent and "purify" the end product. Alternate methods involve allowing the oil to drip directly onto a plate or Pyrex dish which is heated to speed the solvent evaporation process.

Since this process involves the use of flammable and potentially explosive materials, especially butane, the hazard of fire and or explosion is great. This is compounded by the fact that extraction is usually done indoor to avoid detection. Vapors can collect in unventilated spaces where pilot lights and gas stoves used to evaporate solvents provide excellent sources of ignition. Additionally, the person performing the extraction may smoke and/or be intoxicated which compounds the danger.

If responders are called to an occupancy where materials and paraphernalia believed to be used for hash oil extraction are found, they should immediately exit the structure and call law enforcement. Ultimately a bomb squad may need to respond, especially if homemade extraction tubes resembling pipe bombs are found. It is important to note as of the date of this alert, operations that have been discovered have not resulted in pipe bombs being found; what was found were, in fact, extractor tubes. This does not mean that eventually pipe bombs will not be found. With the understanding that drug dealers often use booby traps against law enforcement and competing drug dealers, it is wise to err on the side of safety and take all necessary safety precautions. These include but are not limited to the proper use of PPE and SCBA as appropriate.



Left to right: Commercially available extractor tube from Amazon; Butane being injected into an extractor; Commercially available cans of butane gas.



Left to right: A glass extractor tube; Finished hash oil. Note the honey-like appearance.



A PVC homemade extractor tube, similar in appearance to a pipe bomb.



Explosion and resulting fire caused by extracting hash oil using butane.

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