



BAKERSFIELD POLICE DEPARTMENT

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CHIEF OF POLICE



TRAINING BULLETIN

HOMEMADE EXPLOSIVES

On March 30, 2016 the Kern County Sheriff's Department Bomb Squad responded to a report of an explosion in the area of Delano. The suspect, a resident of Bakersfield, detonated the homemade explosives and suffered extensive trauma to his hand. The Bakersfield Police Department Bomb Squad responded to assist KCSO with the service of two search warrants in Bakersfield. During the service of these search warrants substantial amounts of two extremely dangerous and unstable homemade explosives were located.

The two homemade explosives located were Hexamethylene Triperoxide Diamine (HMTD) and Methyl Ethyl Ketone Peroxide (MEKP). Both of these explosives, as well as Triacetone Triperoxide (TATP) will be briefly addressed in this memorandum. While all three of these explosives present obvious dangers associated with sensitive explosives, HMTD and TATP are especially dangerous to law enforcement due to their close resemblance to Methamphetamine. If handled in the same manner as seized Methamphetamine, both HMTD and TATP will have a high likelihood of detonation. Further, if either of these explosives are placed into a narcotic testing kit the exposure to the chemicals in the kit will likely guarantee a detonation. According to the M.M.C. International B.V., the presumptive narcotics testing kits are not compatible with oxidizing agents, and contact with such agents should be avoided. HMTD, TATP and MEKP are chemical explosives, meaning they do not require a container or vessel to allow them to detonate.



Methamphetamine



Cocaine



TATP



HMTD

The precursors for TATP, HMTD and MEKP are readily available in common consumer products; however, they all share the common ingredient of Hydrogen Peroxide, one of the strongest oxidizers known. Hydrogen Peroxide has recently become one of the more common explosive precursors. It is utilized in low concentration in a variety of commercial products such as contact lens cleaners and hair dyes. Concentrations of Hydrogen Peroxide for explosive purposes have ranged from 35% to 60% in recent terrorist attacks. Normal household peroxide ranges between 3% and 6% peroxide by weight in water. The presence of this material should not illicit any suspicion by itself. However, if the diluted peroxide is found in large volumes and/or in conjunction with hot plates, it is possible that concentrating

of the material for production of blended mixtures is taking place. Terrorists have been known to boil down diluted peroxide in order to make it more concentrated.



Typically beautician grade peroxide ranged from 9% to 35% peroxide by weight. This type of peroxide is often referred to as developer.



Hydrogen peroxide is used to safely raise the level of oxygen in nutrient and fertilizer solutions, ranging from 19% to 35% are utilized in this capacity.



A product designed to wash away pesticide residue called, Superoxy Food Wash, was recently encountered which contains 35% Hydrogen Peroxide mixed with grapefruit seed extract.



Methyl Ethyl Ketone Peroxide (MEKP)

MEKP is a colorless, oily liquid. MEKP is slightly less sensitive to shock and temperature, and more stable in storage. Dilute solutions of 30 to 60% MEKP are used in industry for bonding resins used in glass-reinforced plastic, and casting. MEKP is a severe skin irritant and can cause progressive corrosive damage or blindness. MEKP is a high explosive, detonating at approximately 15,000 feet per second.



Hexamethylene Triperoxide Diamine (HMTD)

HMTD is unstable and detonates upon impact, temperature change and friction. It is, however, less unstable than many other peroxides under normal conditions. It also reacts with most common metals, which can lead to detonation. HMTD is a high explosive, detonating at approximately 14,000 feet per second.



Triacetone Triperoxide (TATP)

TATP has been referred to as the "Mother of Satan" because of its high susceptibility to accidental detonation. TATP is one of the most sensitive explosives known, being extremely sensitive to impact, temperature change and friction. TATP is a high explosive, detonating at approximately 17,000 feet per second.