

Can the Government Mitigate the Use of Common Household Products Use for Explosives?

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August 2018

Common Household Products Can Deliver a Big Bang

Since the Alfred P. Murrah Federal Building attack on April 19th, 1995 there has been an increased awareness within law enforcement circles of improvised explosives devices. Common, readily accessible industrial and household products coupled with an information robust world wide web provide a wider range of opportunities for the construction of simple explosive devices. While a few explosive events are unfortunate accidents, the greater number of incidents are deliberately perpetrated.

The most recent years of reporting (2010-2016) by the United States Bomb Data Center (USBDC), show that over 290 explosive incidents involved the use of five improvised explosive fillers.¹ While ammonium nitrate and fuel oil were historically one of the most frequently used fillers, we currently see a shift in the United States (US), and abroad, to the more inexpensive and volatile chlorate/perchlorate mixtures. This is, however, just one of a multitude of commonly improvised explosive mixtures that can be obtained amongst everyday household and industrial products. The easy availability and inexpensive nature of these substances provides ample opportunities for potential new incidents whether intentional or not. Did you know that:

- Nail polish remover (acetate) + antiseptic (hydrogen peroxide) = Triacetone Triperoxide, an incredibly sensitive mixture that will detonate from shock, friction, heat, static electricity or because it is Wednesday.
- Fertilizer (ammonium nitrate) and diesel fuel (any fuel will work i.e. aluminum powder, sugar, brake fluid, etc.) = a common blasting agent requiring a booster to initiate. In the past a frequent component of vehicle borne improvised explosive devices
- Pool chlorine (HTH) + Brylcreem hair gel = incendiary
- Fish tank cleaner (potassium permanganate) + glycerin = incendiary, immediate ignition

All these common products can be found in households and can easily be manipulated to construct highly explosive devices which has been proven repeatedly through the past several years; and increasingly continues to be an issue worldwide. Exacerbating the issue is the impact of social media and 24-hour news cycle ensuring plenty of press coverage and credit attributed to the perpetrators. This often results in “copycat” events similar to what happens with other violent incidents such as mass shootings or terrorist acts.

With a significant number of these attacks/incidents occurring at schools, universities, and workplaces, all highly vulnerable groups, the inclusion of the public is becoming more critical to provide increased public awareness and additional opportunities for federal and local law enforcement, including the Department of Homeland Security (DHS), to prevent these events. It

¹ United States Bomb Data Center reports 2010-2016

is imperative that the US takes a proactive approach in mitigating the risk posed by improvised explosive fillers, both within the US and outside its borders.

United States Bomb Data Center Reports Increased Explosive Incidents

The United States Bomb Data Center (USBDC) reports there were at least 4,640 explosion incidents in the United States between 2012 and 2016 culminating in 775 injuries and 183 deaths.² The true number of incidents, deaths and injuries is undoubtedly higher as reporting to the system is often inconsistent.³ An explosive related incident is defined by the USBDC to include “explosions and bombings, recoveries, suspicious packages, bomb threats, hoaxes and explosives thefts/losses”.

Per the statistics noted above, 1,421 of these incidents involved improvised explosive fillers. These improvised fillers ranged from match heads to triacetone triperoxide (TATP) and chlorate/perchlorate mixtures. The most prevalent improvised explosive filler was pyrotechnic, black or smokeless powder.⁴ Most of the remainder involved some type of chemical mixture utilizing household or readily available compounds. For the purposes of this paper we are not including “over pressure” events such as soda pop bombs.

To date, the United States has been discrete regarding public awareness of the risks from improvised explosive fillers. However, a similar awareness program targeting methamphetamine precursors has proven to mitigate the illicit production of this product in the U.S. Can the U.S. and other global governments initiate a similar program for some of the more common chemicals and substances thus thwarting more of the explosive incidents that occur?

Due to the number of improvised explosive fillers currently being utilized worldwide, the US and other western governments have initiated public awareness programs within their own countries targeted at wholesalers and retailers; and, in some instances, citizens. In the United States, the Department of Homeland Security under “Operation Tripwire” administers an awareness program primarily targeted towards chemical manufacturers and warehouse operators. The program provides a series of physical, data security and insider threat suggestions and regulations. This is codified in the Chemical Facility Anti-Terrorism Standards (CFATS) regulatory program. CFATS was initially passed in the 2007 with the DHS Appropriations Act. It was updated with the “Protecting and Securing Chemical Facilities from Terrorist Act of 2014. The latest legislation extended the CFATS program for four additional years.

Australia and the United Kingdom’s Programs

Australia and the United Kingdom have developed programs that operate at a more granular level than the United States. The Australian program, “*Chemicals of Concern*”, emphasizes the ninety-six most commonly used chemicals; and actions that can mitigate the illicit use of readily available chemicals. Of the ninety-six, fifteen of these chemicals are the most frequently used or

² United States Bomb Data Center Explosives Incident Report 2016 pg 3

³ Ibid pg 1

⁴ Ibid pg 6

most readily usable for illicit purposes.⁵ All the chemicals (as with virtually all the chemicals used worldwide for improvised explosive fillers) are commonly sold for household or commercial use. These items are frequently used as cleaners, drain cleaners, fertilizers and other innocuous uses.

Great Britain's MI5 Military Intelligence Section 5 (the Security Service) oversees the public awareness/threat mitigation program for improvised explosives in the United Kingdom (UK). MI5 monitors all online sales of precursor chemicals and coordinates with various local authorities, especially the Metropolitan Police Counter Terrorism Command (SO15). SO15 is responsible for conducting investigations regarding suspicious purchases or attempts to purchase precursor chemicals.

The UK provides a Counter Terrorism Hotline and conducts regular meetings with companies at almost every level. During the meetings, these agencies will exchange information from possible threats they have discovered and will provide warning to the companies of areas of increased concern. Larger companies have systems in place to flag the suspicious purchase of precursor chemicals and prevent the completion of the transaction. In these cases, the reporting system identifies the items attempting to be purchased that are of concern, including any issues with identification or cash for large purchases, and they will block the sale. This information, once flagged, is then passed to MI5 or the Metropolitan Police. This program has led to a number of verifiable successes in the United Kingdom.

The US has initiated only a limited number of similar programs, with the preponderance of them focusing on precursor chemicals and ammonium nitrates. Overall, it has been passive in ensuring public awareness of these risks. Meanwhile, a similar type of program targeting methamphetamine production has proven to successfully mitigate the production of this illegal drug in the U.S. When US law enforcement put into effect a program restricting purchases of over the counter cold medicines containing pseudoephedrine, such as used in Sudafed, production of methamphetamines was noticeably impacted and had a negative impact on the production of this drug.

National and Global Awareness Programs

While the use of chemical precursors in the production of illegal improvised explosive fillers is relatively limited in the United States, their use elsewhere in the world is rising; and indicators point to an increased future risk of this threat in the US. Government and industry programs are relatively low cost and can provide significant potential benefits when planned and implemented effectively. Can the U.S. and other global governments working together, initiate a similar program for some of the more common chemicals and substances used to produce improvised explosive fillers and reduce the number of illegal explosive incidents? A proactive approach globally to mitigate these risks is a clear example of a "low cost - high reward" program that is possible with sufficient governmental buy in. The bigger issue is how governments can collaboratively implement a successful program across international borders, like the program targeting methamphetamine production, that doesn't result in onerous regulations and/or large

⁵ Australia's "National Code of Practice for Chemical Security Concerns"

price increases on common household products that contain the substances that can be used in explosives.

A Global Collaborative Effort

A partnership of national governments with national chemical producers and distributors promoting awareness at the wholesale and retail levels of precursor chemicals is a low-cost initiative providing an opportunity to mitigate the production and use of improvised explosive fillers. Specifics of such a program can include:

- Inclusion of industry at the beginning of the initiative will promote a more cooperative enterprise and improve results.
- A regulatory system will provide for more consistent and complete reporting of suspicious events.
- Coordinated development of reporting guidelines for industry including industry feedback where possible.
- Production of awareness materials to be distributed to manufacturers, distributors and wholesalers. A consensus between government and industry should be pursued down to the most practical level (i.e. awareness program down to the retail level may or may not be practical)
- Implementation of a “Hotline” to include an operations center to receive and document all information, and analyze and vet incoming information.
- Program to distribute industry produced information to the appropriate agencies
- Mechanism to exchange feedback between industry and government.
- Operational security is important. Minimal public information will mitigate countermeasures by illicit producers.

Interpol’s Role in the Global Collaborative Effort

The use of Interpol to quarterback the sharing and direction of information between all nations involved in this collaborative effort could be extremely effective in the efforts to mitigate the proliferation of common products in the construction of explosive devices. More specifically, the United States National Central Bureau (USNCB), the official US Interpol office located in Washington DC, would be an excellent choice to oversee and quarterback a program such as this by acting as the clearinghouse for information and incident reporting coming in from individual Interpol members and then pushing that information out to all the other 192 Interpol offices. In turn, each of those offices would push the information down to their local law enforcement agencies and through whatever national programs they have for chemical information reporting. The USNCB currently issues “Purple Notices” on explosive incident reports they receive from other countries to law enforcement agencies within the US and vice versa.

Summary

With the use of common chemical precursors used in the making of explosives on the rise in the US and abroad, the time is ripe for a more coordinated, collaborative reporting program that would benefit all nations and help thwart the increasing number of explosives incidents involving the use of common household chemicals. With involvement and collaboration in the

effort at an international level, the information shared would greatly stymie the efforts of the individuals and entities utilizing these products for their criminal undertakings; and save lives and property.