



Transportation Security Administration

Office of Intelligence
and Analysis

Other Agency Product of Interest (OA-PoI)

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Attn: Intelligence Customer

(U) The ignition of a thermite-based incendiary device on an aircraft at altitude could result in catastrophic damage and the death of every person onboard. These devices are easily assembled and concealable; current TSA screening procedures would likely not recognize thermite-based mixtures.

(S//NF) Thermite is made of rust and aluminum powder. These substances are easily accessible online or contained within widely available over-the-counter products. The thermite mixture, as well as the ignition source, can be concealed within items such as children's toys and water canteens—items that would not arouse suspicion as they pass through TSA security screening.

(S//NF) When ignited, thermite burns violently and at extremely high temperatures, and may spray molten metal in all directions. Thermite has the ability to burn through steel, and every other material of which an aircraft is comprised; it will continue to burn to completion. As the thermite melts through materials on an aircraft, it produces toxic gasses, which can act as nerve poison, as well as a thick black smoke that will significantly inhibit any potential for in-flight safety officers to address the burn. Injuries from sprayed molten metal along with the inability to see or breathe through thick black smoke will cause hysteria on the aircraft and significantly inhibit the movement of FAMs or in-flight safety officers to the burn.

(U) Because thermite contains its own oxygen supply, it cannot be extinguished with familiar firefighting tactics. Moreover, the use of liquids such as water or halon (most aircraft contain halon fire extinguishers) will induce a violent reaction when introduced to the burning thermite mixture, spraying burning metal in much the same fashion as during the initial ignition. FAMs are trained to extinguish flames immediately and by any means available. As such, FAMs may attempt to use a liquid-based firefighting agent, resulting in greater harm to the aircraft and its occupants. When encountering a thermite device, FAMs onboard an aircraft should: recognize a thermite ignition, advise the captain immediately, ensure the individual(s) who ignited the device are rendered inoperable, contain the crowd while systematically evacuating the area of the burn, and address injuries.