

Preventing the manufacture of home-made explosives

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Customer: Home Office.



This Project

Following a successful feasibility study in 2014, QinetiQ is leading a team over a 2 year period to identify and develop additives that will prevent the manufacture of home-made explosives by causing a gelling, foaming or decomposition reaction within some precursor chemicals. The reaction will only be triggered by the presence of a condition or chemical necessary for the production of an explosive and will not affect legitimate use.

Background

Many explosives encountered by law enforcement are manufactured from chemicals found in everyday household products or chemicals used by industry. In May 2014, the Home Office launched a research call to identify additives that can be used to modify household products or industrial chemicals to prevent the illicit manufacture of explosives or to cause harm while retaining the properties necessary for their legitimate use.

Partners

University of Leeds
Ashland



Results



Clockwise from top:
gelling, decomposition and foaming
reactions

Criteria for Additives

Additives must be:

- Safe for consumers
- Practical to insert at the point of manufacture and have minimal testing requirements.
- REACH compliant
- Cost effective

Industrial Engagement

We are keen to hear from companies involved in consumer chemicals, to discuss how this project may impact them.

Industrial Impact

The number of chemicals potentially affected by this project is small, and the vast majority of consumer products will not need to be altered.