

What Is Calcium Ammonium Nitrate?

CALCIUM AMMONIUM NITRATE, often referred to as CAN-26 (26 percent nitrogen), was developed by fertilizer manufacturers to be a non-detonable alternative to pure ammonium nitrate. It contains 25 percent inert material (calcium carbonate). This highly valued and legitimate fertilizer is reprocessed by insurgents and then used as the main charge in HME.

Insurgents routinely use two approaches to reprocess CAN-26 before sensitizing it with a fuel. In



one method, the very soluble ammonium nitrate is separated from insoluble carbonate by dissolving it in hot water and decanting the concentrated ammonium nitrate solution. Excess water is evaporated and the ammonium nitrate is dried and crushed. Another processing method grinds the CAN-26 into a fine powder without extracting the inert material. In both cases, "paint flake" aluminum, powdered sugar or a combination of both are added to HME, increasing its explosive power and sensitivity.



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Calcium Ammonium Nitrate (CAN-26)



Why CAN-26 Is a Problem

HOMEMADE EXPLOSIVES ARE THE BIGGEST concern in the counter-IED fight in Afghanistan. Around 80 percent of the IEDs used against our troops in Afghanistan have homemade explosives, or HME, as the main charge and are almost exclusively derived from calcium ammonium nitrate fertilizer, or CAN-26, produced in Pakistan.



During the last 12 months an unending supply of CAN-26 has been used to produce IEDs in Afghanistan, despite a countrywide ban on the import of ammonium nitrate. CAN-26 is produced by two factories in Pakistan, each generating between 420,000 to 450,000 metric tons annually. During the last year, an estimated 480,000 pounds of CAN-26 was used to make IEDs in Afghanistan. However, this represents only .05 percent of the annual production capacity of these two factories.

The continued, uncontrolled availability of CAN-26 and other HME-precursor material is the most significant contributing factor to the Afghan IED problem.

“The Afghanistan IED threat cannot be defeated without addressing the flow of CAN-26 and the vast majority of IED components – including commercial explosives, radio-control triggers and HME precursors.”

— Lieutenant General Michael Barbero, Director, JIEDDO
June 27, 2011, Intelligence Conference

What Needs to Be Done

Stopping the HME supply chain is essential to reduce the effects of IEDs on coalition forces, government personnel, contractors and civilians in Afghanistan and Pakistan. Defeating the Pakistan-produced, HME-fueled IEDs in Afghanistan requires a whole-of-government approach.



Success requires:

- Synchronizing and leveraging the authorities and capabilities of the U.S. government, coalition, and international partners
- Defining and building a common picture of the HME supply chain
- Identifying key facilitators of raw materials supplying the HME pipeline into Afghanistan
- Identifying the financial networks, institutions, funding streams and key financiers

