

# Automotive News

## Takata plans to 'transition' away from ammonium nitrate in airbags

Official tells House panel volatile chemical is a factor in ruptures

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-- **UPDATED: 6/2/15 8:15 pm ET - adds testimony, questioning**

WASHINGTON -- Takata Corp. plans to "transition" away from using a volatile chemical in its airbag inflators, a top executive from the embattled supplier told a panel of U.S. lawmakers on Tuesday.

Kevin Kennedy, executive vice president of Takata's North American affiliate, told a U.S. House of Representatives subcommittee that the company would ramp up production of airbag inflators containing guanidine nitrate, an explosive compound used as propellant that is used by competitors like TRW and Autoliv.

The chemical is less vulnerable to heat and moisture than ammonium nitrate. Takata has identified exposure to heat and moisture over several years as a leading factor behind its airbag ruptures.

Takata began producing "alternative propellants" using guanidine nitrate within the last year or two and is ramping up its use, Kennedy said, adding "I think overall you will see our production of ammonium nitrate go down rapidly."

Kennedy was grilled by members of the House Energy and Commerce Committee's Commerce, Manufacturing and Trade subcommittee over Takata's use of ammonium nitrate as the primary propellant in its airbag inflators -- a chemical compound that experts have said is inherently risky.

Under tough questioning, Kennedy said "ammonium nitrate appears to be one of the factors" behind the airbag inflator ruptures that have killed at least six people, injured more than 100 and prompted the recall of as many as 34 million vehicles in the U.S. that contain the part.

It was the first time that a Takata official publicly acknowledged that the chemical itself is a factor in the ruptures.

### Defending usage

At the same time, he defended the company's continued use of ammonium nitrate, saying the chemical is safe when properly manufactured and engineered.

Chemical experts have said ammonium nitrate has an inherent vulnerability to degradation when exposed to moisture, which Takata has identified as a leading factor behind the airbag ruptures. When degraded, the compound can ignite with too much force in a crash and cause the metal inflator canister to rupture.

All vehicles covered by the Takata recalls contain a formulation of ammonium nitrate that excludes a desiccant, a chemical additive that absorbs moisture and can increase an inflator's useful age, Kennedy said. While Takata has been incorporating a desiccant into its ammonium nitrate formulation for years, Takata still manufactures a few older families of inflators without the additive for use in new vehicles, Kennedy said.

"I couldn't believe what they were telling me. They were still making an airbag with ammonium nitrate as a propellant and without a desiccant," said Rep. Michael Burgess, R-Texas, who chaired the Commerce, Manufacturing and Trade subcommittee hearing on the Takata recalls today.

"It is a problem that no one has identified the root cause ... but no non-ammonium nitrate airbag has been involved" in a rupture, Burgess told reporters after the hearing. "It seems like that's where you should focus."

### **Dangerous replacement?**

After Kennedy said some replacement parts were supplied with ammonium nitrate but without a desiccant, Jan Schakowsky, D-Ill., said "I don't understand that," later saying "the replacement could be as dangerous as" the parts being replaced.

During the hearing, Kennedy reiterated that ruptures are believed to occur only after several years of exposure to hot, humid climates.

In one exchange with Rep. Burgess, Kennedy said the company's consent agreement with NHTSA requires it to continue testing non-recalled inflators to ensure that all potentially defective parts are captured.

"I'm sorry, you're not providing me much reassurance with that answer," Burgess said.

Rep. Marsha Blackburn, R-Tenn., asked Kennedy whether he agreed with an explosives engineering expert quoted in a November story by the *New York Times* who said ammonium nitrate "shouldn't be used in airbags... but it's cheap, unbelievably cheap."

"I wouldn't say that it's unbelievably cheap, I would say it's competitive with some of the other propellant formulations that are out there like guanidine nitrate which some of our competitors use," Kennedy said, noting that Takata uses guanidine nitrate in some of its inflators.

"It's a blanket statement that says it should not be used -- I don't agree with that because obviously we use it. We've had some issues with some of our ammonium nitrate inflators but some of them perform very well."

"Are you an explosives expert?" Blackburn asked.

"No I am not," Kennedy replied.

Frustrated lawmakers grew increasingly testy with Takata's continued use of the chemical. Rep. Markwayne Mullin, R-Okla., chided Kennedy to see more contrition from the company.

"You're very skillful on the way you approach your answers," Rep. Markwayne Mullin, R-Okla., said. "But at the same time, we just don't seem to be getting the answers."

Mullin said "there's no excuse" for replacement parts that will have to be replaced themselves, which Kennedy acknowledged earlier in the hearing would likely happen.

"Maybe this panel is just waiting to hear you say, 'we screwed up,'" Mullin said.



U.S. Rep. Jan Schakowsky, D-Ill., holds a defective Takata airbag and shrapnel from its deployment during today's House hearing.

*Photo credit: REUTERS/Jonathan Ernst*

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