



Takata Airbags: An Ethical Dilemma

Takata's own mission statement referred to their "responsibilities to society" to produce safe products for a safe world, and for their products to be something "people can rely on." Having manufactured airbags since 1988, Takata was one of the major suppliers of safety equipment for automobiles in the world, with about 20% market share. Prior to the airbag recall discussed here, Takata already had a serious product recall on seatbelts in 1995, which should have served as a warning sign to automakers and a wakeup call to the engineering staff.

However, the high cost of that recall may have. One of the earliest reports of death due to airbag explosion was in 2004 but was written off as an anomaly. In 2008, after more deaths had been attributed to airbag malfunction, Honda made the first small recall. It was not until 2014 that the National Highway Traffic Safety Administration (NHTSA) issued an order for Takata to recall its airbags. Automakers also commissioned an outside investigation into the matter from Orbital ATK. Engineers at Takata had recognized some problems with the inflators early on in the design process but did not release that data until investigations had started. **By concealing this data from both regulatory bodies and vehicle manufacturers, Takata violated the ethics codes presented by the American Institute of Chemical Engineers (AIChE) and the National Society of Professional Engineers (NSPE) in a way that led to multiple deaths and injuries for consumers, and extremely costly recalls for its vehicle manufacturing customers. However, the engineering staff may have had undue pressure from company executives to stay quiet about perceived problems with their design.**

A commitment to protecting the environment is one of the tenets in both ethics codes, and the choice of ammonium nitrate as accelerant for the inflators was based on lower emissions

Commented [OA(1): No funneling is employed

Commented [OA(2): There is an awkward transition here, how does this sentence relate to what is before it.

Commented [OA(3): This background information is not enough for the reader to understand what is the specific subject of your paper.

Commented [OA(4): There are number of issues with the thesis statement:

- You are referring to information that has not been stated before, which leaves the reader puzzled to what you mean
- The statement is broad, be specific about which tenets were violated

Commented [OA(5): This sentence does not belong in the thesis statement. This is more of a counter argument that you can use later in the paragraphs.

when compared with the industry standard tetrazole, and less toxic than the older option, sodium azide. While well-meaning, this was a dubious choice based on ammonium nitrate's history of accidental explosions throughout the 1900s.

Both engineering associations have first and foremost the safety, health, and welfare of the public. The engineers who worked on these airbag inflators likely were chemical or mechanical engineers and belonged to one of these associations if they worked in America, and the defective inflators were reportedly manufactured in the Mexico plant, or Washington state.

Both associations require avoiding deception, and concealment of potential instabilities was intentionally deceptive. However, the initial testing was likely not sufficient to find the full extent of the problem since the explosions happened many years after car manufacture and installation. Engineers did not release findings until investigations started.

Accepting responsibility for actions and heed criticism is listed for both ethics codes as well. While the business executives are not beholden to engineering ethics, the engineers still have a duty to take responsibility for the errors in judgement as soon as possible. They likely delayed for fear of reprisal at going against the company stance since Takata did not acknowledge the widespread problems until 2013.

Commented [OA(6): This sentence is too long and does not summarize the idea properly. Leave the part where you justify Takata decision for choosing ammonium nitrate or the discussion. Focus on the ethical violation. For example: "Takata engineers violated tenet # ... when they choose ammonium nitrate"

Commented [OA(7): This information can be established in the introduction paragraph before the thesis statement. You don't need to repeat it every time

Commented [OA(8): This is just information, there is no topic sentence here

Commented [OA(9): This information can be established in the introduction paragraph before the thesis statement. You don't need to repeat it every time

Commented [OA(10): Where is the topic sentence here. The topic sentence needs to adequately summarize the idea. It also needs to be drawn from a question already asked in the thesis statement

Commented [OA(11): See previous comment

Commented [OA(12): Keep the focus on engineers

Commented [OA(13): Avoid speculations, use facts only.