

June 28, 2016

DEFECT INFORMATION REPORT

1. Vehicle Manufacturer Name:

Toyota Motor Corporation ["TMC"]
1, Toyota-cho, Toyota-shi, Aichi 471-8571, Japan

Affiliated U.S. Sales Company:

Toyota Motor Sales, USA, Inc. ["TMS"]
19001 South Western Avenue, Torrance, CA 90501

Manufacturer of the Curtain Shield Air Bag Assembly:

Autoliv Japan Ltd.
3-17-6 Shinyokohama, Kohoku-ku, Yokohama-shi, Kanagawa-Pref., 222-8580, Japan
Telephone: +81-45-475-3501
Country of Origin: Japan

2. Identification of Involved Vehicles and Affected Components:

Based on production records, we have determined the involved vehicle population as in the table below.

Make/Car Line	Model Year	Manufacturer	Production Period
Toyota / Prius	2010 - 2012	TMC	October 21, 2008 through April 27, 2012
Toyota / Prius Plug-in Hybrid	2010		November 27, 2009 through October 21, 2010
	2012		July 20, 2011 through April 27, 2012
Lexus / CT200h	2011 - 2012		August 23, 2010 through April 27, 2012

Applicability	Part Number	Part Name	Component Description
MY2010 - 2012 Toyota Prius	62170-47020	Air Bag Assembly, Curtain Shield	Curtain Shield Air Bag Assembly
MY2010. 2012 Toyota Prius Plug-in Hybrid	62180-47020		
MY2011 - 2012 Lexus CT200h	62170-76010 62180-76010		

- (1) Although the involved vehicles are within the above production period range, not all vehicles in this range were sold in the U.S.
- (2) No other Toyota or Lexus vehicles sold in the U.S. contain inflators of the same specification and that were produced within the production period containing the potential for weld contamination as described in the chronology below.

3. Total Number of Vehicles Potentially Involved:

Toyota Prius	: 449,821
Toyota Prius Plug-in Hybrid	: 6,625
Lexus CT200h	: 25,556
Total	: 482,002

4. Percentage of Vehicles Estimated to Actually Contain the Defect:

Unknown

5. Description of Problem:

The subject vehicles are equipped with curtain shield air bags located in the left and right side roof rails. Each curtain shield air bag uses a “hybrid” type inflator which contains compressed gas in one chamber of the inflator and propellant in another; these chambers are welded together. Some inflators could have a minute crack in the weld area. If the crack propagates over time, the welded portion could separate. This has been observed when the vehicle is parked and unoccupied for a period of time. If an inflator separates, compressed gas escapes, which results in partial inflation of the curtain shield air bag, and, in limited circumstances, one or both sections of the inflator could enter the interior of the vehicle. If an occupant is present in the vehicle, there is an increased risk of injury.

6. Chronology of Principal Events:

November 2011 – August 2015

Toyota received a field report from the U.S. market indicating spontaneous partial inflation of the driver side curtain shield air bag (CSA) in a 2010 Prius while the vehicle was parked unoccupied in a parking lot. Toyota recovered the CSA from this vehicle and began an investigation with the supplier. The investigation confirmed that the CSA inflator separated at the weld seam joining the stored gas chamber with the pyrotechnic chamber, allowing the stored gas to escape and resulting in the partial inflation of the air bag.

In addition, an analysis of the fracture surface identified Zinc and Phosphorous contamination of the weld, and confirmed that an inter-granular fracture originated at the inner surface of the weld and propagated outward, resulting in the separation of the inflator. The weld contamination source was traced to the lubricant used during the inflator tube drawing process at a sub-supplier. A review of the production process and history by the supplier revealed that the lubricant may not have been fully removed from the inflator tube as a result of abnormal handling of one section of tubing which is then used to make several stored gas inflator chambers. A process improvement was implemented in January 2012 to inspect the inner surface for any residual lubricants prior to the welding process.

Based on the supplier's estimate that the number of future occurrences would be quite small and the belief that the phenomena did not create a risk of injury, Toyota decided to continue to monitor field information.

Up to June 2014, Toyota received two additional field reports from the U.S. indicating spontaneous partial inflation of the CSA in parked, unoccupied vehicles. Investigations of the recovered parts revealed that these inflators failed in the same manner as the first report.

September 2015 – Mid June 2016

Toyota received an additional (fourth) report from the U.S. indicating spontaneous partial inflation of the CSA; it was found that the inflator separated in the same manner as the first three cases. Toyota initiated recovery of CSAs from in-use vehicles in the market to verify the supplier's predicted occurrence rate and to identify any other potential cause of the weld separation. Approximately one thousand recovered CSAs were investigated and no abnormalities were found at the weld. In April 2016, Toyota received another report indicating that a portion of the driver side CSA inflated spontaneously in a parked and unoccupied vehicle and that the stored gas portion of the inflator separated from the roof rail and entered the passenger compartment.

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Toyota is continuing to investigate the cause of CSA inflator separation based upon investigation of recovered parts as well as additional recovery of CSA inflators from in-use vehicles. While the future occurrence rate is predicted to be low due to a very rare manufacturing issue, to minimize the risk of injury to vehicle occupants, Toyota decided to conduct a voluntary safety recall campaign to install protectors to prevent a separated inflator chamber from entering the vehicle interior.

As of June 17, based on a diligent review of records, Toyota's best engineering judgment is that there are six Toyota Field Technical Reports for five unique vehicles and five warranty claims for these vehicles that have been received from U.S. sources that relate to this condition and which were considered in the decision to submit this report.

7. Description of Corrective Repair Action:

All known owners of the subject vehicles will be notified by first class mail to return their vehicles to a Toyota or Lexus dealer. For all involved vehicles, Toyota and Lexus dealers will install retention brackets on the curtain shield air bag inflators at no cost. These retention brackets are designed to prevent the inflator chambers from entering the vehicle interior if separation occurs.

Reimbursement Plan for pre-notification remedies

The owner letter will instruct vehicle owners who have paid to have this condition remedied prior to this campaign to seek reimbursement pursuant to Toyota's General Reimbursement Plan.

8. Recall Schedule:

Notifications to owners of the affected vehicles will occur by August 27, 2016. A copy of the draft owner notification letter will be submitted as soon as available.

9. Distributor/Dealer Notification Schedule:

Notifications to distributors/dealers were sent on June 28, 2016. Copies of dealer communications will be submitted as they are issued.

10. Manufacturer's Campaign Number:

Toyota: G0U

Lexus: GLJ