#### DEFECT INFORMATION REPORT FOR ZONE A

**January 2, 2019** 

#### TK Global LLC

# TAKATA NON-DESICCATED FRONTAL AIR BAG INFLATORS CONTAINING PHASE STABLIZED AMMONIUM NITRATE FOR ZONE A

#### **Number potentially involved:**

Approximately 1 million inflators

## **Estimated Percentage of involved with defect:**

1% 1

#### **Describe the defect or non-compliance:**

TK Global, formerly Takata, is submitting this DIR in accordance with the terms specified in the May 4, 2016 Amendment to the November 3, 2015 Consent Order in EA15-001. This report contemplates national recalls of vehicles equipped with certain former Takata non-desiccated inflators used in frontal airbag systems containing a phase stabilized ammonium nitrate-based propellant that were not included in prior national recalls. The subject inflators include models designated by Takata as: PSPI, PSPI-1.1, PSPI-2, PSPI-6, PSPI-L, and SPI.

TK Global is not aware of any test ruptures in ballistic testing of returned inflators in the designated categories and model years or confirmed field incidents of the subject non-desiccated ammonium nitrate inflators other than those already under recall as detailed in prior defect information reports. Out of an abundance of caution, however, TK Global is filing this report in cooperation with NHTSA to promote public safety.

As a result of the developments and circumstances described below, TK Global has determined that a defect related to motor vehicle safety may arise in some of the subject non-desiccated ammonium nitrate inflators due to propellant degradation occurring after prolonged exposure to high absolute humidity, high temperatures, and high temperature cycling. Testing and analysis conducted by Takata, TK Global and by independent entities

<sup>&</sup>lt;sup>1</sup> Estimated Percentage of involved with defect is unknown, 1% is used here because submission within NHTSA's safety portal will not allow a non-numeric value.

have found that there are wide differences in the time periods in which propellant degradation takes place. The propellant degradation varies in different climate zones, in different vehicle makes and models, and in different inflator and propellant configurations. The Agency has concluded that these non-desiccated frontal Takata PSAN air bag inflators do not pose an unreasonable risk to safety under the Safety Act until they reach a certain level of propellant degradation.

This DIR applies to all subject inflators installed as original equipment in all remaining vehicles, that have been registered in Zone A, as defined in Paragraph 7 of the May 4, 2016 Amendment to the Consent Order, and that are not currently covered by an inflator recall. This includes vehicles from Model Year 2014 and newer.

Zone A includes states and U.S. territories with the greatest temperature cycling and absolute humidity. It includes: Alabama, California, Florida, Georgia, Hawaii, Louisiana, Mississippi, South Carolina, Texas, Puerto Rico, American Samoa, Guam, the Northern Mariana Islands (Saipan), and the U.S. Virgin Islands.

The subject inflators were installed as original equipment in vehicles sold in the United States by the following vehicle manufacturers (listed alphabetically):

American Honda Motor Co. 1919 Torrance Blvd. Torrance, CA 9051-2746 Phone: (310) 783-2000

BMW of North America P.O. Box 1227 Woodcliff Lake, NJ 07677-7731 Phone: (201) 307-4000

Daimler Vans USA LLC 303 Perimeter Center North Suite 202 Atlanta, GA 30346 Phone: (770) 705-2070

FCA US LLC 800 Chrysler Drive CIMS 482-00-91 Auburn Hills, MI 48326-2757 Phone: (800) 853-1403 Ferrari North America, Inc. 250 Sylvan Ave. Englewood Cliffs, NJ 07632 Phone: (201) 816-2600

Ford Motor Company 330 Town Center Drive Suite 500, Dearborn, MI 48126 Phone: (866) 436-7332

General Motors LLC 30001 Van Dyke Road Warren, MI 48094-9020. Phone: (313) 556-5000

Jaguar Land Rover North America LLC 555 Mac Arthur Boulevard Mahwah, NJ 07430 Phone: (800) 452-4827

Mazda North America Operations 1025 Connecticut Avenue NW Suite 910 Washington DC 20036 Phone: (800) 222-5500

McLaren Automotive Inc. 750 Third Avenue Suite 2400 New York, NY 10017 Phone: (646) 429-8916

Mercedes Benz USA LLC 303 Perimeter Center North Atlanta, Ga. 30346 Phone: (407) 545-6768

Mitsubishi Motors North America Inc. 6400 Katella Avenue Cypress, CA 90630 Phone: (714) 372-6000 Subaru of America Inc. One Subaru Drive Camden, NJ 08103 Phone: (856) 488-8500

Tesla Motors Inc., 3500 Deer Creek Road Palo Alto, CA 94304 Phone: 650-413-4000

Toyota Motor Engineering & Manufacturing 19001 South Western Avenue Torrance, CA 90501

Phone: 800-331-4331

### **Describe the safety risk:**

Activation of a non-desiccated ammonium nitrate inflator with degraded propellant may result in an inflator rupture. An inflator rupture may cause metal fragments to pass through the air bag and into the vehicle interior at high speed, which may result in injury or death to vehicle occupants.

## **Describe the cause:**

The propellant wafers in some of the subject inflators may degrade over time, which could lead to over-aggressive combustion in the event the air bag is activated. Overly aggressive combustion creates excessive internal pressure when the inflator is activated, which may cause the inflator body to rupture. Based upon Takata's and TK Global's investigations to date, the potential for such ruptures occurs in some of the subject inflators after several years of exposure to persistent conditions of high absolute humidity, high temperatures, and high temperature cycling. The potential for rupture may also be influenced by other factors, including the specific vehicle environment, the inflator and propellant configuration, and manufacturing variability.

### **Chronology:**

November 3, 2015 – NHTSA and Takata entered into a Consent Order in EA15-001 to resolve issues raised in that investigation, to mitigate and control risks of harm, and to promote public safety.

May 4, 2016 – NHTSA and Takata entered into an Amendment to the November 3, 2015 Consent Order. As stated in that Amendment, on the basis of testing and analysis conducted by Takata and by independent research organizations, NHTSA has concluded that, "at some point in the future all non-desiccated frontal Takata PSAN inflators will reach a threshold level of degradation that could result in the inflator becoming unreasonably dangerous". As a result of this conclusion, and pursuant to Paragraph 29 of the November 3, 2015 Consent Order, NHTSA ordered Takata to file certain defect information reports ("DIR"), in accordance with the schedule set forth in Paragraph 14 of the Amendment.

May 16, 2016 – Takata submitted DIRs per the schedule specified by NHTSA in the Amendment to the Consent Order.

January 3, 2017 – Takata submitted DIRs per the schedule specified by NHTSA in the Amendment to the Consent Order. The schedule called for certain DIRs to be submitted by Dec. 31, 2016. However, since that date fell on a weekend and a Federal holiday was observed on Jan. 2, 2017, NHTSA agreed that the DIRs would be submitted on Jan. 3, 2017, the next business day.

January 2, 2018 – Takata submitted DIRs per the schedule specified by NHTSA in the Amendment to the Consent Order. The schedule called for certain DIRs to be submitted by Dec. 31, 2017. However, since that date fell on a weekend and a Federal holiday was observed on Jan. 1, 2018, NHTSA agreed that the DIRs would be submitted on Jan. 2, 2018, the next business day.

April 10, 2018 – Due to the company bankruptcy and sale of the majority of Takata assets, the successor company responsible for PSAN inflators is TK Global LLC. TK Global LLC is responsible for investigations and necessary field actions for all Phase Stabilized Ammonium Nitrate (PSAN) airbag inflators, originally manufactured by Takata.

January 2, 2019 – TK Global is submitting this DIR per the schedule specified by NHTSA in the Amendment to the Consent Order. The schedule calls for all subject inflators installed as original equipment in all remaining vehicles to be submitted by Dec 31, 2018. NHTSA agreed that this DIR could be submitted on Jan. 2, 2019.

# **Describe the defect / noncompliance remedy program:**

Per the sale of the majority of Takata assets to Joyson Safety Systems (JSS) and the bankruptcy agreement, the supplier of remedy parts is JSS. The Coordinated Remedy Program, being administered by the Independent Monitor, will prioritize the supply of remedy parts to the vehicles and zones that present the highest risk.