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AmSafe NexGen Seatbelt & Structure-Mounted Airbag Systems Handling, Shipping, Storage, and Disposal Instructions

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Revision History

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–	J. Buenger	J. Magish	Initial release.	27-Apr-2015
A	J. Buenger	J. Magish	Revised per ECO 5969.	10-Aug-2015
B	J. Buenger	J. Magish	Revised per ECO 6655.	21-Jan-2016
C	J. Buenger	K. Keeslar	Revised per ECO 6773.	17-Mar-2016
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1 References

CFR	Title
49 CFR §172.301	General Marking Requirements for Non-Bulk Packagings
49 CFR §172.400	General Labeling Requirements
49 CFR §172.700	Purpose and Scope

2 Scope

This document applies to the NexGen AmSafe Seatbelt and Structure-Mounted Airbag Systems.

3 System Description

The system provides seat occupants with protection from serious head-impact injury during a survivable aircraft crash and enhances the seat occupant's ability to egress the aircraft.

Seatbelt airbag systems (Figure 1, Figure 2 and Figure 3) consist of the following components.

- Inflatable lap belt assembly
- Inflator assembly
- Cable assembly, interface
- Electronic module assembly (EMA)

Seatbelt airbag systems may have the following components.

- Fitting assembly
- Line replaceable unit (LRU) inflator cable interface
- Cable assembly, extension

Structure-mounted systems (Figure 4) have the following components. (Structure-mounted airbag systems are installed in monuments.)

- Airbag module
- Inflator assembly
- Cable assembly, interface
- EMA

Structure-mounted system may have the following components.

- Line replaceable unit (LRU) inflator cable interface
- Cable assembly, extension

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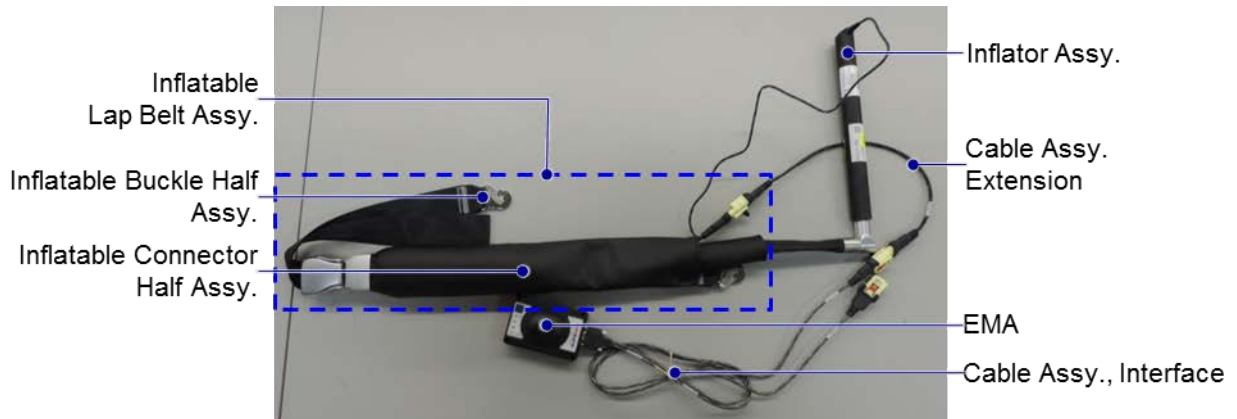
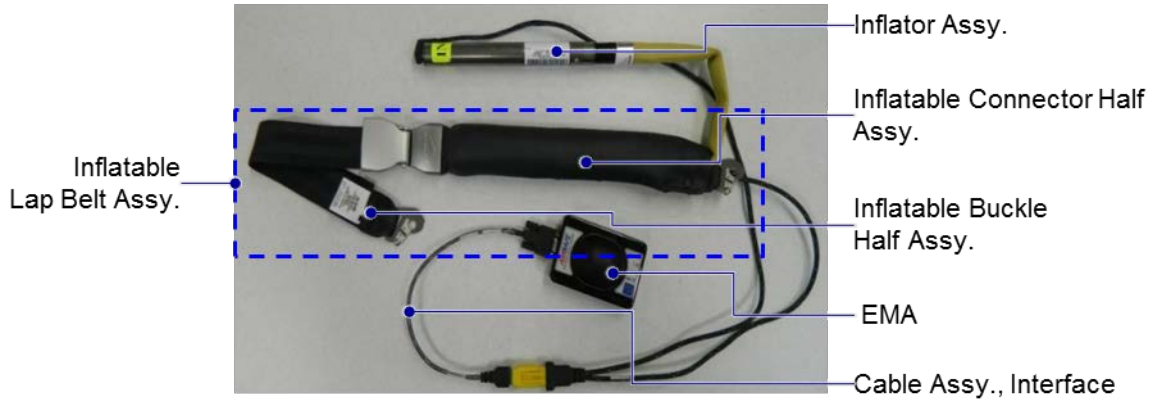


Figure 1 – Representative System with a Lift-Latch Buckle

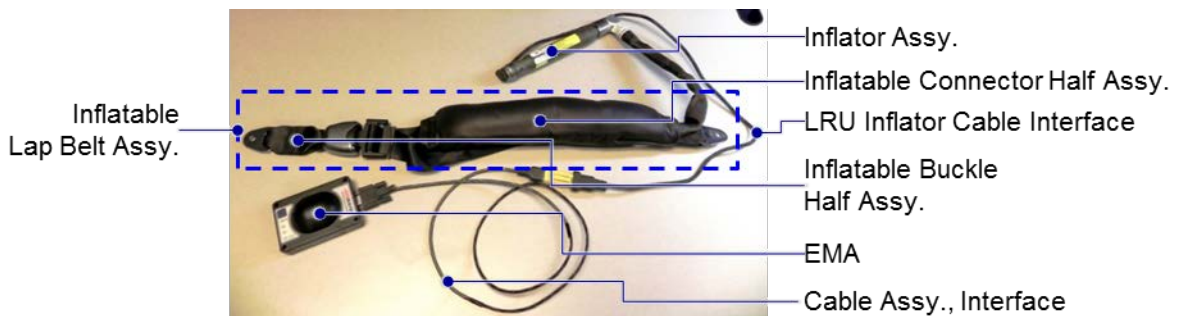


Figure 2 – Representative System with an Compact End-Release Buckle

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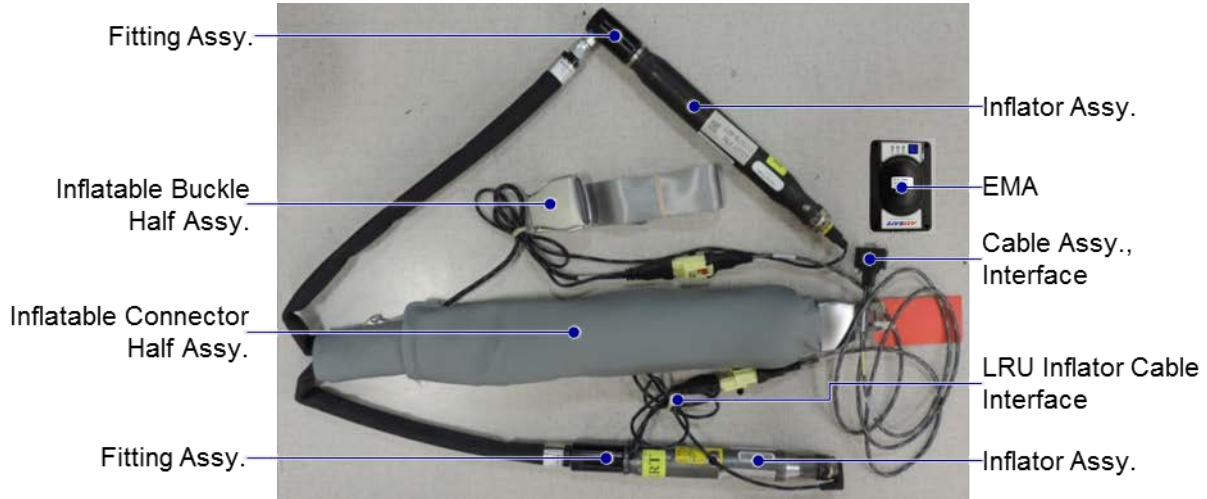


Figure 3 – Representative System with Two Inflator Assemblies

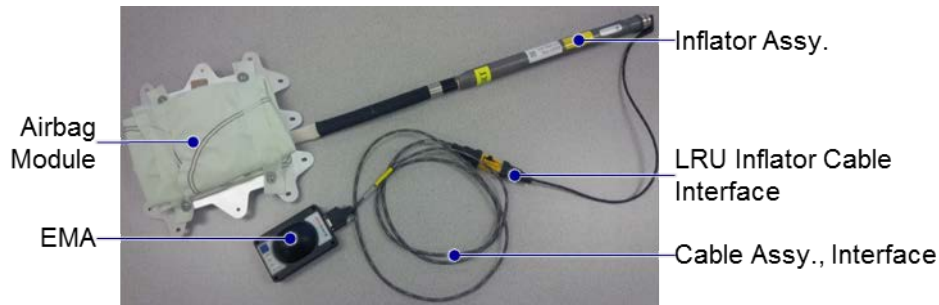


Figure 4 – Representative Structure-Mounted System

3.1 Systems with and Without Enabling Switches

These instructions contain warnings specific to systems with, or systems without, enabling switches (Table 1).

- Systems with a Lift-Latch Buckle: All systems with a lift-latch buckle have enabling switches (Figure 1 and Figure 3). (The enabling switch is a component of the inflatable connector half assembly.)
- Systems with a Compact End-Release Buckle: the enabling switch may be a component of the inflatable buckle half assembly.
 - If a connector subassembly (Figure 5) is attached to the inflatable buckle half assembly, the system has an enabling switch.
 - If a connector subassembly (Figure 6) is not attached to the inflatable buckle half assembly, the system does not have an enabling switch.
- Structure-mounted systems (Figure 7) do not have enabling switches.

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Table 1 – Systems with and Without Enabling Switches

System	Does the System Have an Enabling Switch?
Systems with a lift-latch buckle	Yes
Systems with a compact end-release buckle with a connector subassembly attached to the inflatable buckle half assembly.	Yes
Systems with a compact end-release buckle without a connector subassembly attached to the inflatable buckle half assembly.	No
Structure-mounted system	No

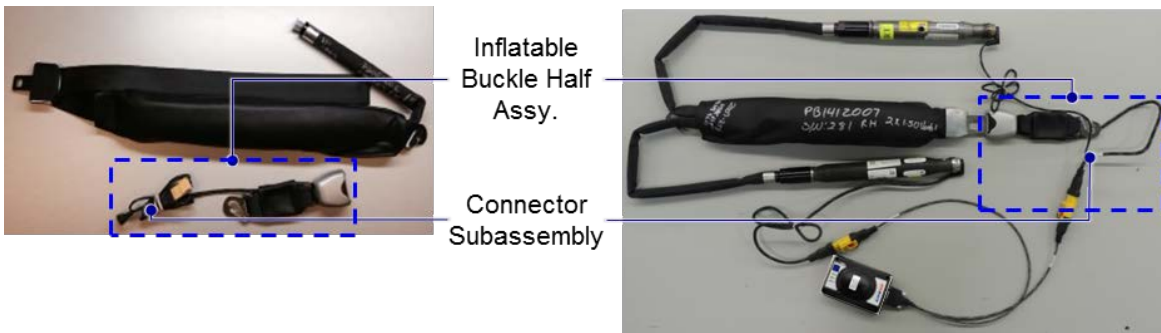


Figure 5 – Inflatable Buckle Half Assemblies with Enabling Switches

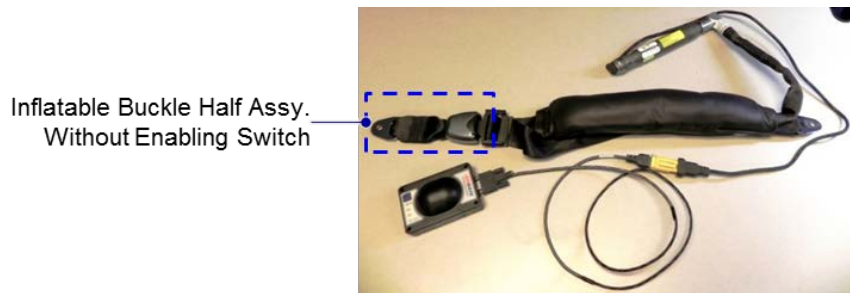


Figure 6 – Inflatable Buckle Half Assembly Without an Enabling Switch

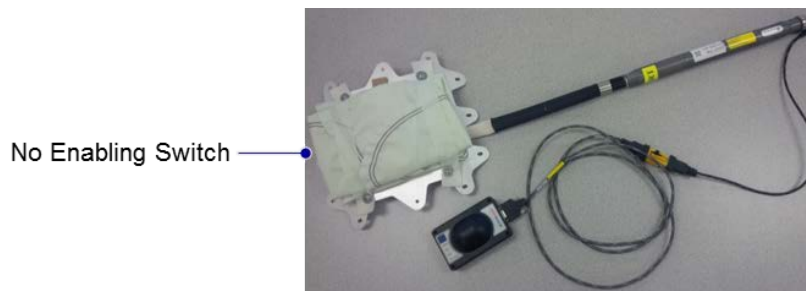


Figure 7 – Structure Mounted System Without an Enabling Switch

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4 Instructions

These instructions ensure the system or its components are appropriately handled, shipped, stored, and disposed. With the exception of warnings, cautions, and notes, these instructions are general. All personnel who handle, ship, store, or dispose the system and its components are required to obtain training and observe local, national, and international regulations.

4.1 Safety Warnings, Cautions and Notes

Read all warnings and cautions prior to working on any system.



WARNING: A WARNING CALLS ATTENTION TO MATERIALS, PROCESSES, METHODS, PROCEDURES, OR LIMITS THAT MUST BE FOLLOWED TO AVOID INJURY TO PERSONS.



CAUTION: A CAUTION CALLS ATTENTION TO MATERIALS, PROCESSES, METHODS, PROCEDURES, OR LIMITS THAT MUST BE FOLLOWED TO AVOID DAMAGE TO EQUIPMENT.

4.1.1 Seats or Monuments



WARNINGS: SYSTEMS WITH ENABLING SWITCHES: ENSURE THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED AND REMAIN SEPARATED AT ALL TIMES TO MINIMIZE THE POTENTIAL OF SYSTEM DEPLOYMENT THAT MAY INJURE PERSONNEL OR EQUIPMENT.

SYSTEMS WITHOUT AN ENABLING SWITCH: THE SYSTEM IS ALWAYS LIVE, EVEN WHEN THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED. ALTHOUGH THE SYSTEM IS LIVE AS SOON AS ALL ELECTRICAL CONNECTIONS ARE MADE, ENSURE THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED AND REMAIN SEPARATED AT ALL TIMES.

IF THE SYSTEM IS NOT COMPLETELY INSTALLED, DISCONNECT THE P1 CONNECTOR (ON THE CABLE ASSEMBLY, INTERFACE) TO THE EMA BEFORE MOVING, SHIPPING OR INSTALLING A SEAT OR MONUMENT.

ALWAYS DISCONNECT THE P2, P3, AND P4 CONNECTORS ON THE CABLE ASSEMBLY, INTERFACE (FIGURE 8 AND FIGURE 9) FOR EACH SEAT POSITION PRIOR TO REMOVAL AND REPLACEMENT OF ANY COMPONENT OR SEAT/ MONUMENT MAINTENANCE.

SYSTEMS WITH AN ENABLING SWITCH: IT IS HIGHLY-RECOMMENDED THE P2, P3 AND P4 CONNECTORS ON THE CABLE ASSEMBLY, INTERFACE ARE DISCONNECTED BEFORE MOVING, SHIPPING OR INSTALLING A SEAT. THE SYSTEM MAY DEPLOY AND MAY INJURE PERSONNEL OR DAMAGE EQUIPMENT IF THE SEAT RECEIVES AN IMPACT (E.G., DROPPING THE SEAT OR HAMMERING THE SEAT). IF THE P2, P3 AND P4 CONNECTORS ON THE CABLE ASSEMBLY, INTERFACE ARE CONNECTED, WRITTEN WORK INSTRUCTIONS BETWEEN THE SEAT MANUFACTURER (OEM) AND THE AIRCRAFT OWNER/OPERATOR ARE REQUIRED TO ENSURE THE SYSTEM REMAINS DISABLED UNTIL THE SEAT IS INSTALLED ON THE AIRCRAFT.



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SYSTEMS WITHOUT AN ENABLING SWITCH: DISABLE THE SYSTEM BEFORE MOVING, SHIPPING OR INSTALLING A SEAT OR MONUMENT. THE SYSTEM MAY DEPLOY AND MAY INJURE PERSONNEL OR DAMAGE EQUIPMENT IF THE SEAT OR MONUMENT RECEIVES AN IMPACT (E.G., DROPPING THE SEAT OR MONUMENT OR HAMMERING THE SEAT). THE SYSTEM MUST BE DISABLED BY DISCONNECTING THE P2, P3, P4 CONNECTORS ON THE CABLE ASSEMBLY, INTERFACE. IF THE SYSTEM DOES NOT HAVE P2, P3 AND P4 CONNECTORS, DISABLE THE SYSTEM BY DISCONNECTING THE 15-PIN (P1) CONNECTOR ON THE CABLE ASSEMBLY, INTERFACE (FIGURE 10) FROM THE EMA. COVER THE 15-PIN (P1) CONNECTOR WITH AN ANTISTATIC BAG.

DO NOT DROP OR MISHANDLE A SEAT OR MONUMENT. IF DROPPING OR MISHANDLING OCCURS, PERFORM A VISUAL INSPECTION TO ENSURE THE SYSTEM IS PROPERLY SECURED AND COMPONENTS ARE NOT DAMAGED. IF ANY DAMAGE IS NOTED, REMOVE AND RETURN THE ENTIRE SYSTEM.

IN THE CASE OF A SYSTEM DEPLOYMENT, DO NOT USE ANY SEAT OR MONUMENT WITH A SYSTEM SHARING THE SAME EMA AS THE DEPLOYED SYSTEM. REMOVE AND RETURN ALL COMPONENTS TO AMSAFE.

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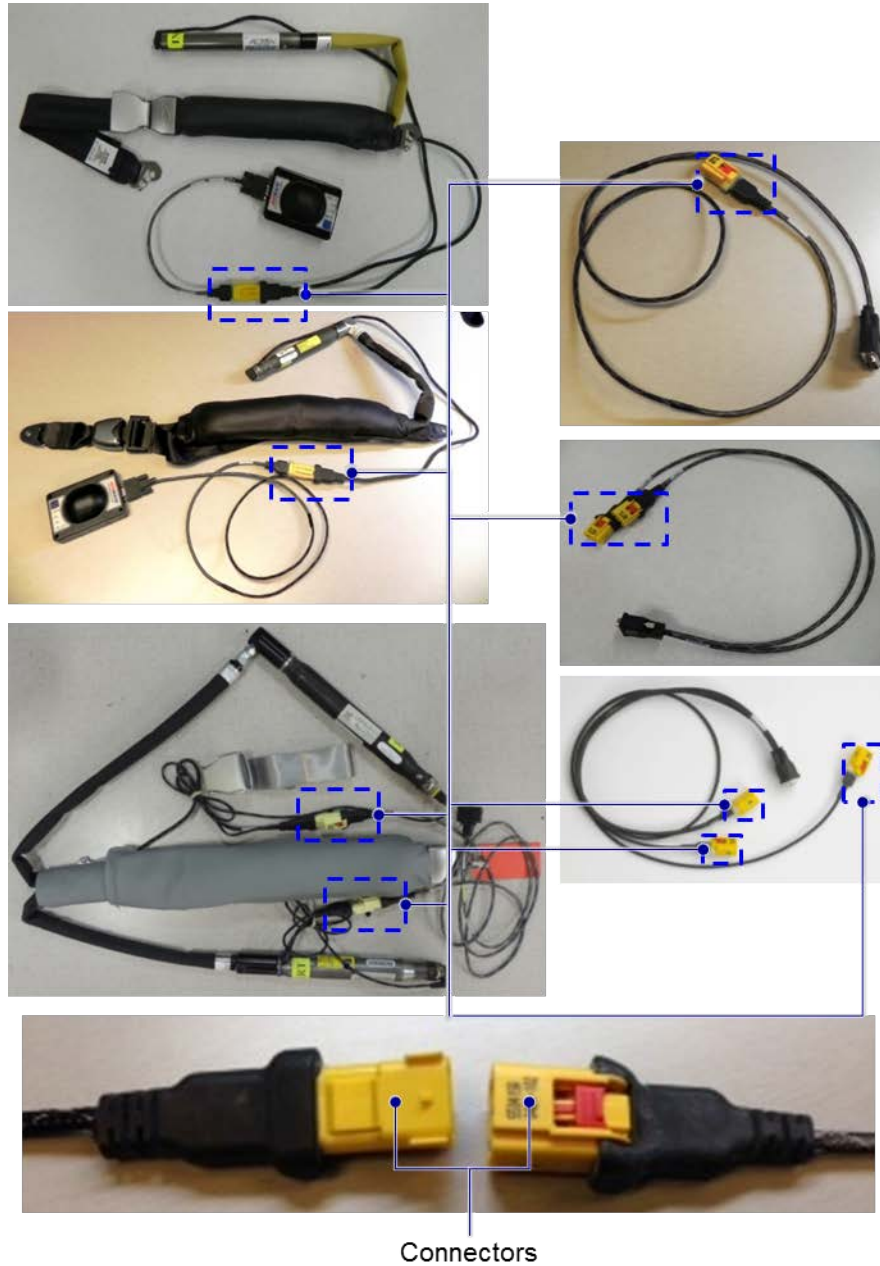


Figure 8 – P2, P3, P4 Connectors on the Cable Assembly, Interfaces

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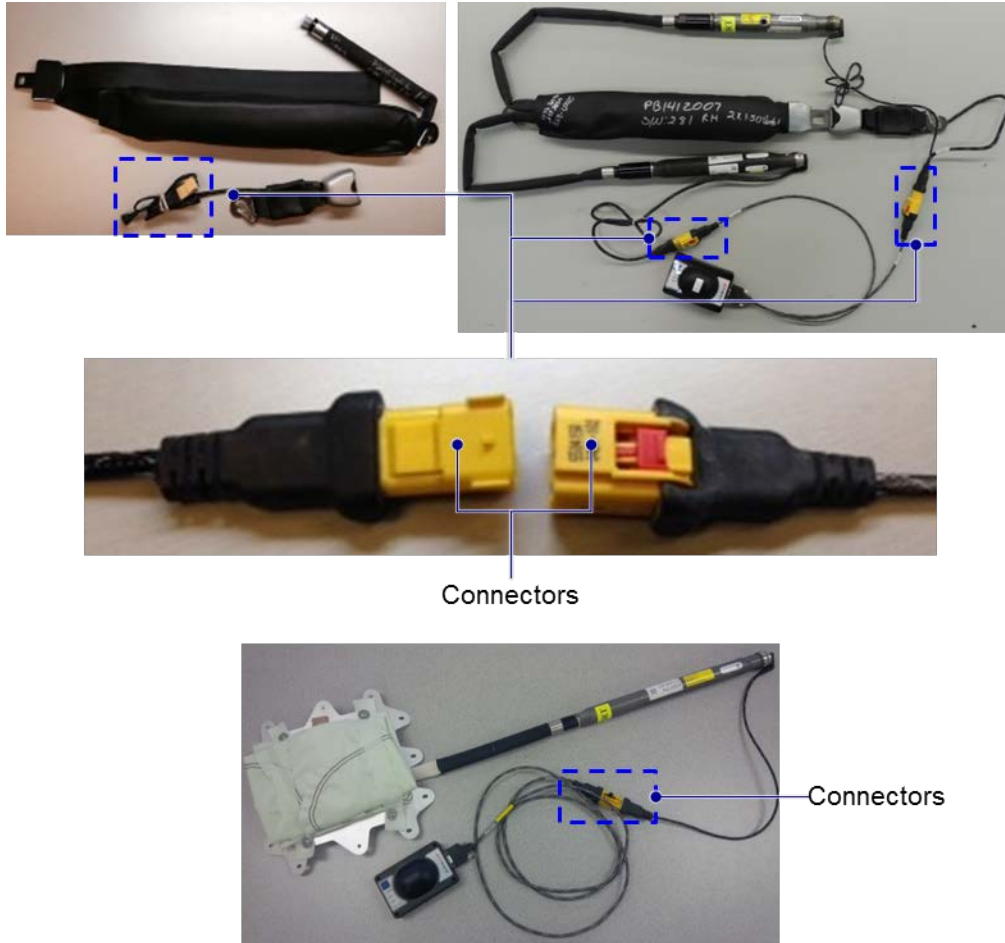


Figure 9 – P2 and P3 Connectors on Cable Assembly, Interfaces

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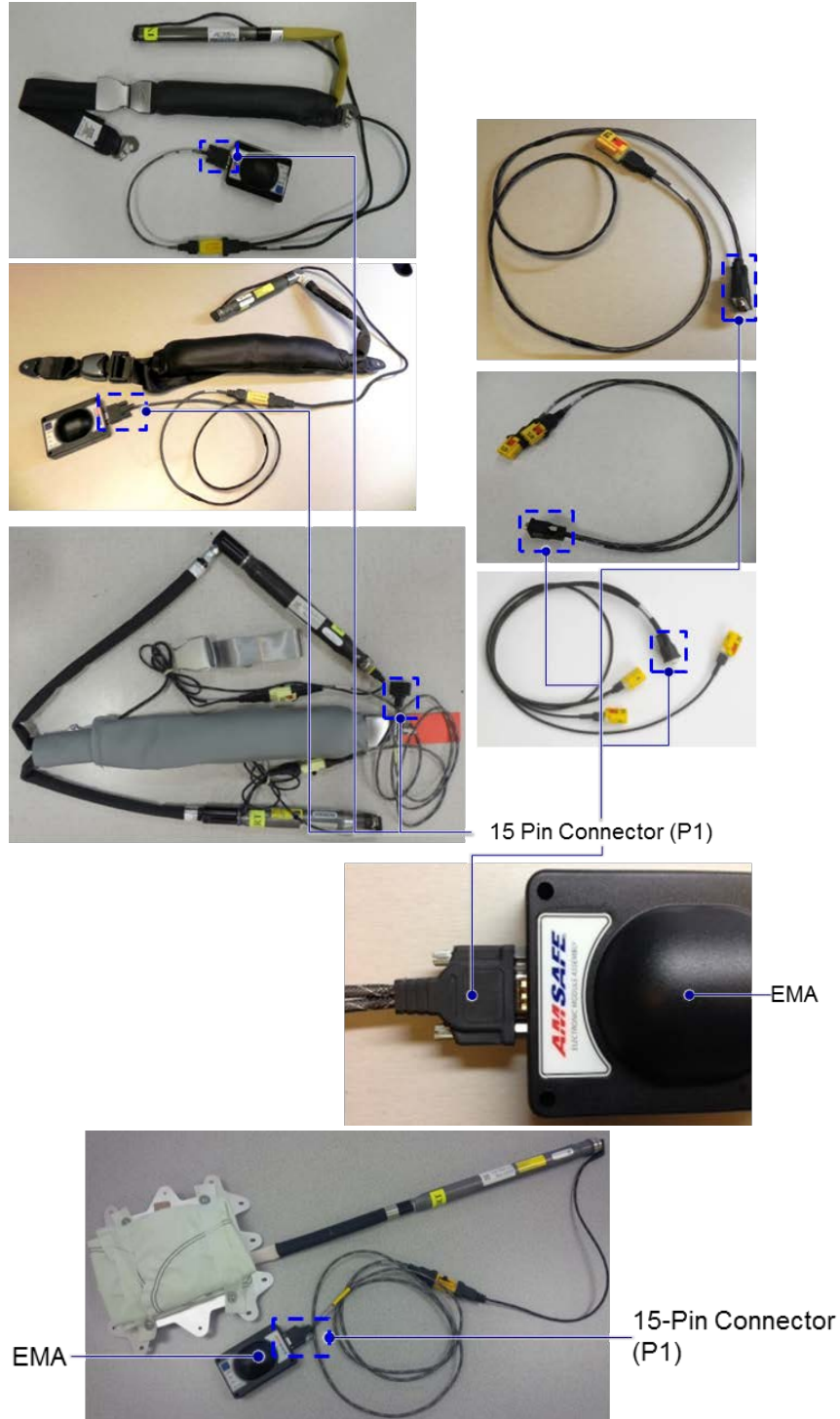


Figure 10 – 15-Pin Connectors on Cable Assembly, Interfaces

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4.1.2 Inflatable Connector Half Assembly and Inflatable Buckle Half Assembly

**WARNINGS:**

SYSTEMS WITH AN ENABLING SWITCH: ENSURE THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY FOR ALL SEATS ARE UNBUCKLED AND REMAIN SEPARATED AT ALL TIMES TO MINIMIZE THE POTENTIAL OF DEPLOYMENT OF THE SYSTEM THAT MAY INJURE PERSONNEL OR DAMAGE EQUIPMENT. UNINTENTIONAL DEPLOYMENT OF THE AIRBAG COULD OCCUR IF THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE BUCKLED. UNINTENTIONAL DEPLOYMENT OF THE AIRBAG COULD CAUSE INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT. THE ONLY TIME THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY SHOULD BE BUCKLED IS WHEN AN OCCUPANT IS IN THE SEAT WITH THE INTENT OF FLIGHT.

SYSTEMS WITHOUT AN ENABLING SWITCH: THE SYSTEM IS ALWAYS LIVE, EVEN WHEN THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED. ALTHOUGH THE SYSTEM IS LIVE AS SOON AS ALL ELECTRICAL CONNECTIONS ARE MADE, ENSURE THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED AND REMAIN SEPARATED AT ALL TIMES.

THE CABLE TIE AND CAUTION TAG (FIGURE 11) PREVENT BUCKLING THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY. DO NOT REMOVE THE CABLE TIE OR CAUTION TAG UNTIL THE SYSTEM IS INSTALLED ON THE SEAT AND THE SEAT IS INSTALLED IN THE AIRCRAFT.

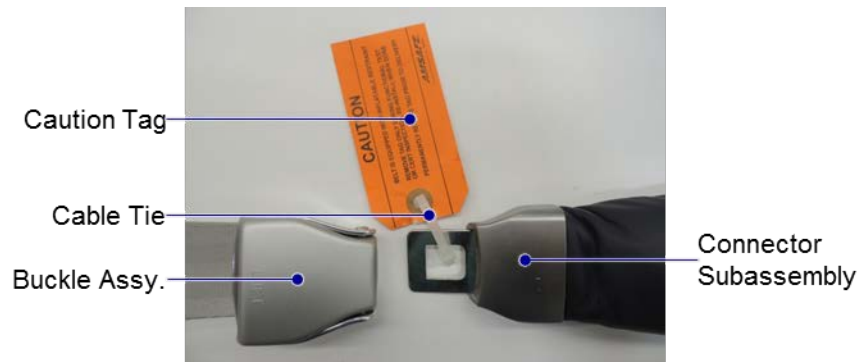


Figure 11 – Cable Tie and Caution Tag

4.1.3 EMA

**WARNING:**

DO NOT DROP OR MISHANDLE THE EMA (FIGURE 10). THE EMA MAY BE DAMAGED AND NOT FUNCTION AS INTENDED. IF DROPPING OR MISHANDLING OCCURS, DO NOT INSTALL THE EMA. RETURN THE EMA TO AMSAFE FOR REPLACEMENT.

AmSafe NexGen Seatbelt & Structure-Mounted Airbag Systems Handling, Shipping, Storage, and Disposal Instructions

Note: The EMA contains a lithium-ion disulfide, nonrechargeable battery. The EMA must be shipped to UN3091 in compliance with PI 970, section II - Lithium Batteries Contained in Equipment. The EMA should be handled by personnel trained in handling dangerous goods. The EMA should be shipped following all international, national, and local regulations. Failure to comply with regulations for dangerous goods may result in civil or criminal penalties. For regulated materials, compliance with the applicable transportation requirements is strictly the responsibility of the user and not AmSafe.

4.1.4 Inflator Assembly



WARNINGS: THE INFLATOR ASSEMBLY CONTAINS COMPRESSED GAS. DO NOT MISHANDLE OR TAMPER WITH THE INFLATOR ASSEMBLY. DEATH OR SERIOUS INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT MAY OCCUR.

DO NOT MISHANDLE OR TAMPER WITH THE INFLATOR ASSEMBLY IN ANY WAY. THE INFLATOR ASSEMBLY SHALL BE HANDLED AND STORED BY PERSONS TRAINED IN THE REQUIREMENTS ASSOCIATED WITH DANGEROUS GOODS.

NEVER ATTEMPT TO OPEN THE INFLATOR ASSEMBLY TO SERVICE THE GAS STORAGE SYSTEM.

NEVER APPLY ELECTRICAL CURRENT TO THE INFLATOR ASSEMBLY.

KEEP THE INFLATOR ASSEMBLY AWAY FROM SOURCES OF THERMAL IGNITION, ELECTRIC SPARKS OR FLAME, IMPACT OR MECHANICAL IGNITION SOURCES, ELECTROSTATIC DISCHARGE, AND VIBRATION. DO NOT MOUNT THE INFLATOR ASSEMBLY IN DIRECT CONTACT WITH DEVICES THAT DISSIPATE EXTREME HEAT. AUTOIGNITION MAY OCCUR THAT MAY INJURE PERSONNEL OR DAMAGE EQUIPMENT.

4.2 General Shipping Procedure



CAUTION: DO NOT USE PACKING MATERIAL (E.G., PACKING PEANUTS) THAT ALLOWS THE SYSTEM OR ITS COMPONENTS TO SHIFT. THIS PACKING MATERIAL DOES NOT PREVENT DAMAGE TO THE SYSTEM OR ITS COMPONENTS.

Notes: Follow all local, national, and international regulations. Failure to comply with regulations for dangerous goods may result in civil or criminal penalties.

Contact AmSafe Customer Service for any shipping questions or concerns.

Contact AmSafe Customer Service to obtain a return material authorization (RMA) number and shipping address. Provide the customer's name, location, contact person, and phone number.

Contact AmSafe Customer Service to receive packaging materials and work instructions to properly pack and assemble materials.

1. Use the original packaging if it is available and in a useable condition or use new packaging of the same quality and size.

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2. Use a minimum of three inches of cushioning material to prevent the system or component from shifting during shipping.
 - a. Use packaging material (e.g., bubble wrap) to protect plated parts.
 - b. Line the sides, top, and bottom of shipping containers with packaging material (e.g., wrapping paper) to prevent movement. If necessary, use partitions or dividers for added protection.
3. Ensure the label is legible, durable, and located and secured such that it will not be obstructed or lost when the package is shipped. Ensure the label contains:
 - Customer address.
 - AmSafe's shipping address.
 - Return material authorization (RMA) number.
 - All appropriate hazmat labels per 49 CFR §172.400 and 49 CFR §172.301.
 - All labels required by country of shipping origin.

4.3 Inflatable Lap Belt Assembly and Airbag Module Assembly



WARNINGS:

SYSTEMS WITH AN ENABLING SWITCH: ENSURE THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED AND REMAIN SEPARATED AT ALL TIMES TO MINIMIZE THE POTENTIAL OF DEPLOYMENT OF THE SYSTEM THAT MAY INJURE PERSONNEL OR DAMAGE EQUIPMENT.

SYSTEMS WITHOUT AN ENABLING SWITCH: THE SYSTEM IS ALWAYS LIVE, EVEN WHEN THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED. ALTHOUGH THE SYSTEM IS LIVE AS SOON AS ALL ELECTRICAL CONNECTIONS ARE MADE, ENSURE THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED AND REMAIN SEPARATED AT ALL TIMES.

THE ONLY TIME THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY SHOULD BE BUCKLED IS WHEN AN OCCUPANT IS IN THE SEAT WITH THE INTENT OF FLIGHT.

DO NOT REMOVE THE CABLE TIE OR CAUTION TAG UNTIL THE SYSTEM IS INSTALLED ON THE SEAT AND THE SEAT IS INSTALLED IN THE AIRCRAFT. THE CABLE TIE AND CAUTION TAG PREVENT BUCKLING OF THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY.

4.3.1 Shipping

Systems or components with a functional defect must be returned to AmSafe. Systems or components that are under warranty and have a manufacturing defect must be returned to AmSafe to claim the warranty. Return the system or component following the General Shipping Procedure. Refer to

AmSafe NexGen Seatbelt & Structure-Mounted Airbag Systems Handling, Shipping, Storage, and Disposal Instructions

subsequent sections in this document for component-specific handling, shipping, storage, and disposal instructions.

4.3.2 Storage

Store the inflatable lap belt assembly or airbag module assembly in cool and dry environment. Store the system so that it is protected from sunlight, dust, moisture, and other contamination.

4.3.3 Disposal

The inflatable lap belt assembly or airbag module assembly do not contain dangerous goods and may be disposed in accordance with the seat or monument OEM's policy.

4.4 Cable Assembly, Interface and Cable Assembly, Extension and LRU Inflator Cable Assembly

4.4.1 Shipping

Components with a functional defect must be returned to AmSafe. Return the component following the General Shipping Procedure.

4.4.2 Storage

Store the components in cool and dry environment.

4.4.3 Disposal

The components do not contain dangerous goods and may be disposed in accordance with the seat or monument OEM's policy.

4.5 EMA

Note: Follow all international, national, and local regulations. Failure to comply with regulations for dangerous goods may result in civil or criminal penalties.

4.5.1 Handling



WARNING: DO NOT DROP OR MISHANDLE THE EMA. THE EMA MAY BE DAMAGED AND NOT FUNCTION AS INTENDED. IF DROPPING OR MISHANDLING OCCURS, RETURN THE EMA TO AMSAFE FOR REPLACEMENT.

Notes: The EMA contains a lithium-ion disulfide, nonrechargeable battery. The EMA must be shipped to UN3091 in compliance with PI 970, section II - Lithium Batteries Contained in Equipment. The EMA should be handled by personnel trained in handling dangerous goods. The EMA should be shipped following all international, national, and local regulations. Failure to comply with regulations for dangerous goods may result in civil or criminal penalties. For regulated materials, compliance with the applicable transportation requirements is strictly the responsibility of the user and not AmSafe.

AmSafe cannot warranty the EMA or be found liable for any unauthorized use or installation of the EMA.

AmSafe NexGen Seatbelt & Structure-Mounted Airbag Systems Handling, Shipping, Storage, and Disposal Instructions

For regulated materials, compliance with the applicable transportation requirements is strictly the responsibility of the user and not AmSafe.

4.5.2 Shipping

Components with a functional defect must be returned to AmSafe. Return the component following the General Shipping Procedure.

4.5.3 Storage

- Store the EMA in cool and dry environment at ambient temperature. Do not store the EMA in environments that exceed -67-185°F (-55-85°C).
- Store the EMA so that it is protected from sunlight, dust, moisture, and other contamination.
- Store the EMA so that it is protected from environments with excessive heat, electromagnetic interference (EMI), radiated field interference (RFI), and electrostatic discharge.
- The maximum storage period is 10 years - calculated from the date of manufacture.
- Store the EMA in its original packaging to protect the EMA from shock and damage.
- Observe all local storage regulations. Store only in a controlled area.

4.5.4 Disposal

Dispose the EMA in accordance with all international, national, and local regulations.

4.6 Inflator Assembly

4.6.1 Handling



WARNINGS: THE INFLATOR ASSEMBLY CONTAINS COMPRESSED GAS. DO NOT MISHANDLE OR TAMPER WITH THE INFLATOR ASSEMBLY. DEATH OR SERIOUS INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT MAY OCCUR.

NEVER ATTEMPT TO OPEN THE INFLATOR ASSEMBLY TO SERVICE THE GAS STORAGE SYSTEM.

NEVER PROBE OR APPLY ELECTRICAL CURRENT TO THE INFLATOR ASSEMBLY ELECTRICAL CONNECTIONS.

IF DAMAGE OR MISHANDLING OF THE SYSTEM OR ITS COMPONENTS IS SUSPECTED, RETURN THE SYSTEM OR COMPONENT TO AMSAFE.

Notes: Failure to comply with all relevant dangerous goods regulations regarding the system may result in civil or criminal penalties.

The inflator assembly shall be handled by personnel trained in handling dangerous goods in accordance with 49 CFR §172.700.

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Refer to Table 2 for the appropriate safety data sheet (SDS), DOT special provision (DOT-SP), and emergency response guide (ERG). Once the inflator assembly is installed it is no longer regulated by the DOT.

Table 2 – Inflator Assembly SDS, DOT-SP, and ERG

Company	Part No.	Description	DOT-SP	SDS	ERG
ARC	511482-401	ADC-58, 1.20 Mole	DOT-SP 12122 Rev15 12-21-15	Attachment A	ERG Guide 171
	512837-401	AHS, AHY-01, 0.5 Mole			
	512839-401	CH5, EEE-04, 2.9 Mole			
	512841-401	CH5, EEF-01, 1.5 Mole			
	512849-401	CH5, EBF-07, 2.45 Mole			
	512855-401	CH5, EES-02, 1.6 Mole			
Autoliv	512847-401	CH5, EET-06, 1.4 Mole	DOT-SP 11650 Rev 27 12-21-15	Attachment B	ERG Guide 171
	510183-401	ACH 2.1b, 3.0 Mole			
	510184-401	ACH 2.1b, 2.2 Mole			
	510226-401	ASH 2.2			
	511077-401	ACH 2.4, 1.56 Mole			
	511450-401	ACH 2.4, 1.84 Mole			
	511452-401	ACH 2.4, 2.24 Mole			
	511454-401	ACH 2.4, 2.77 Mole			
511456-401	ACH 2.4, 3.02 Mole				
	511878-401	ACH 2.5, 3.03 Mole			

4.6.2 Shipping

Components with a functional defect must be returned to AmSafe. Return the component following the General Shipping Procedure.



WARNING: DO NOT SHIP INFLATOR ASSEMBLIES WITH THE FITTING ASSEMBLY INSTALLED. SHIPPING INFLATORS WITH AN ATTACHED FITTING ASSEMBLY MAY RESULT IN DEATH OR SERIOUS INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.

Notes: Follow all international, national, and local regulations. Failure to comply with regulations for dangerous goods may result in civil or criminal penalties.

The inflator assembly is classified by the U.S. DOT as Class 9, air bag inflators, UN3268. The inflator assembly must be shipped in either packaging provided by AmSafe or a U.S. DOT-approved container that is UN (United Nations) tested and marked under UN performance oriented packing (POP).

Contact AmSafe Customer Service to receive packaging materials and work instructions to properly pack and assemble materials.

1. Ensure the fabric hose subassembly and the fitting assembly (if present) are removed from the inflator assembly (Figure 12).

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Figure 12 – Example Fitting Assemblies and Inflator Assemblies

2. Use the original packaging if it is available and in a useable condition or use new packaging of the same quality and size that conforms to UN POP.
3. Use a minimum of three inches of cushioning material to prevent the component from shifting in the packaging.
4. Ensure the label is legible, durable, and located and secured such that it is will not be obstructed or lost when the package is shipped, closed or opened. Ensure the label contains:
 - Customer address.
 - AmSafe's shipping address.
 - RMA number.
 - All appropriate hazmat labels per 49 CFR §172.400 and 49 CFR §172.301.
 - All labels required by country of shipping origin.

4.6.3 Storage



WARNING:

KEEP THE INFLATOR ASSEMBLY AWAY FROM ANY AND ALL SOURCES OF THERMAL IGNITION. IGNITION MAY OCCUR IF THESE SOURCES ARE PRESENT AND MAY CAUSE INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT. AN INFLATOR ASSEMBLY'S AUTOGAS RELEASE IS AT APPROXIMATELY 239°F (115°C).

DO NOT STORE THE INFLATOR ASSEMBLY WITH A FITTING ASSEMBLY ATTACHED. IF THE INFLATOR ASSEMBLY IS DEPLOYED, INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT MAY OCCUR.

Note: Failure to comply with all relevant dangerous goods regulations regarding the system may result in civil or criminal penalties.

- Store the inflator assembly in its original packaging material.

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- Store the inflator assembly in cool and dry environment at ambient temperature. Do not store the inflator assembly in environments that exceed -40-185°F (-40-85°C).
- Store the inflator assembly so that it is protected from sunlight, dust, moisture, and other contamination.
- Store the inflator assembly away from open flames.
- Store the inflator assembly so that it is protected from excessive EMI/RFI/ESD.
- Except for the inflator assemblies listed in Table 3, the maximum storage period is 10 years calculated from the date of manufacture.

Table 3 – Inflator Assembly Storage Period

Inflator Assembly P/N	Maximum Storage Period
507592-401	12 years
508792-401	
510385-401	
508794-401	
508793-401	
508795-401	
All other P/Ns	10 years

4.6.4 Disposal



WARNING: DO NOT ATTEMPT TO DISPOSE INFLATOR ASSEMBLIES. DEATH OR SERIOUS INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT MAY RESULT. RETURN INFLATOR ASSEMBLIES TO AMSAFE FOR DISPOSAL, OR DELIVER INFLATOR ASSEMBLIES TO A LICENSED DISPOSAL FACILITY.

Note: Follow all local, national, and international regulations. Failure to comply with regulations for dangerous goods may result in civil or criminal penalties.

AmSafe recommends returning the inflator assembly to AmSafe for proper disposal regardless if the inflator assembly was deployed or not deployed.

4.7 Special-Plated Components

1. Connectors: Fold and rest the connector on the webbing (Figure 13) and secure the connector in protective packaging (e.g., a bubble bag or bubble wrap).



Figure 13 – Connector

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2. Buckle and Hook Assembly: Secure the component in protective packaging (e.g., a bubble bag or bubble wrap) (Figure 14).



Figure 14 – Buckle and Hook Assembly

4.8 Transporting Seats or Monuments Equipped with the System



WARNINGS:

SYSTEMS WITH AN ENABLING SWITCH: ENSURE THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED AND REMAIN SEPARATED AT ALL TIMES TO MINIMIZE THE POTENTIAL OF DEPLOYMENT OF THE SYSTEM THAT MAY INJURE PERSONNEL OR DAMAGE EQUIPMENT.

SYSTEMS WITHOUT AN ENABLING SWITCH: THE SYSTEM IS ALWAYS LIVE, EVEN WHEN THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED. ALTHOUGH THE SYSTEM IS LIVE AS SOON AS ALL ELECTRICAL CONNECTIONS ARE MADE, ENSURE THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY ARE UNBUCKLED AND REMAIN SEPARATED AT ALL TIMES.

THE ONLY TIME THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY SHOULD BE BUCKLED IS WHEN AN OCCUPANT IS IN THE SEAT WITH THE INTENT OF FLIGHT.

DO NOT REMOVE THE CABLE TIE OR CAUTION TAG UNTIL THE SYSTEM IS INSTALLED ON THE SEAT AND THE SEAT IS INSTALLED IN THE AIRCRAFT. THE CABLE TIE AND CAUTION TAG PREVENT BUCKLING OF THE INFLATABLE CONNECTOR HALF ASSEMBLY AND INFLATABLE BUCKLE HALF ASSEMBLY.

IF THE SYSTEM IS NOT COMPLETELY INSTALLED, DISCONNECT THE P1 CONNECTOR (ON THE CABLE ASSEMBLY, INTERFACE) TO THE EMA BEFORE MOVING, SHIPPING OR INSTALLING A SEAT OR MONUMENT.

SYSTEMS WITH AN ENABLING SWITCH: IT IS HIGHLY-RECOMMENDED THE P2, P3 AND P4 CONNECTORS ON THE CABLE ASSEMBLY, INTERFACE ARE DISCONNECTED BEFORE MOVING, SHIPPING OR INSTALLING A SEAT. THE SYSTEM MAY DEPLOY AND MAY



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INJURE PERSONNEL OR DAMAGE EQUIPMENT IF THE SEAT RECEIVES AN IMPACT (E.G., DROPPING THE SEAT OR HAMMERING THE SEAT). IF THE P2, P3 AND P4 CONNECTORS ON THE CABLE ASSEMBLY, INTERFACE ARE CONNECTED, WRITTEN WORK INSTRUCTIONS BETWEEN THE SEAT MANUFACTURER (OEM) AND THE AIRCRAFT OWNER/OPERATOR ARE REQUIRED TO ENSURE THE SYSTEM REMAINS DISABLED UNTIL THE SEAT IS INSTALLED ON THE AIRCRAFT.

SYSTEMS WITHOUT AN ENABLING SWITCH: DISABLE THE SYSTEM BEFORE MOVING, SHIPPING OR INSTALLING A SEAT OR MONUMENT. THE SYSTEM MAY DEPLOY AND MAY INJURE PERSONNEL OR DAMAGE EQUIPMENT IF THE SEAT OR MONUMENT RECEIVES AN IMPACT (E.G., DROPPING THE SEAT OR MONUMENT OR HAMMERING THE SEAT). THE SYSTEM MUST BE DISABLED BY DISCONNECTING THE P2, P3, P4 CONNECTORS ON THE CABLE ASSEMBLY, INTERFACE. IF THE SYSTEM DOES NOT HAVE P2, P3 AND P4 CONNECTORS, DISABLE THE SYSTEM BY DISCONNECTING THE 15-PIN (P1) CONNECTOR ON THE CABLE ASSEMBLY, INTERFACE FROM THE EMA. COVER THE 15-PIN (P1) CONNECTOR WITH AN ANTISTATIC BAG.

DO NOT DROP OR MISHANDLE A SEAT OR MONUMENT. IF DROPPING OR MISHANDLING OCCURS, PERFORM A VISUAL INSPECTION TO ENSURE THE SYSTEM IS PROPERLY SECURED AND COMPONENTS ARE NOT DAMAGED. IF ANY DAMAGE IS NOTED, REMOVE AND RETURN THE ENTIRE SYSTEM.

IN THE CASE OF A SYSTEM DEPLOYMENT, DO NOT USE ANY SEAT OR MONUMENT WITH A SYSTEM SHARING THE SAME EMA AS THE DEPLOYED SYSTEM. REMOVE AND RETURN ALL COMPONENTS TO AMSAFE.

Notes: The EMA contains a lithium-ion disulfide, nonrechargeable battery. The EMA must be shipped to UN3091 in compliance with PI 970, section II - Lithium Batteries Contained in Equipment.

Once the inflator assembly is installed it is no longer regulated by the DOT.

1. Systems with two inflator assemblies
 - a. First Disconnection (Figure 15): Disconnect the cable assembly, interface from the LRU inflator cable interface. Refer to the seat or monument OEM documents and drawings for proper identification.
 - b. Second Disconnection: Disconnect the cable assembly, interface from the connector subassembly. Refer to the seat or monument OEM documents and drawings for proper identification.

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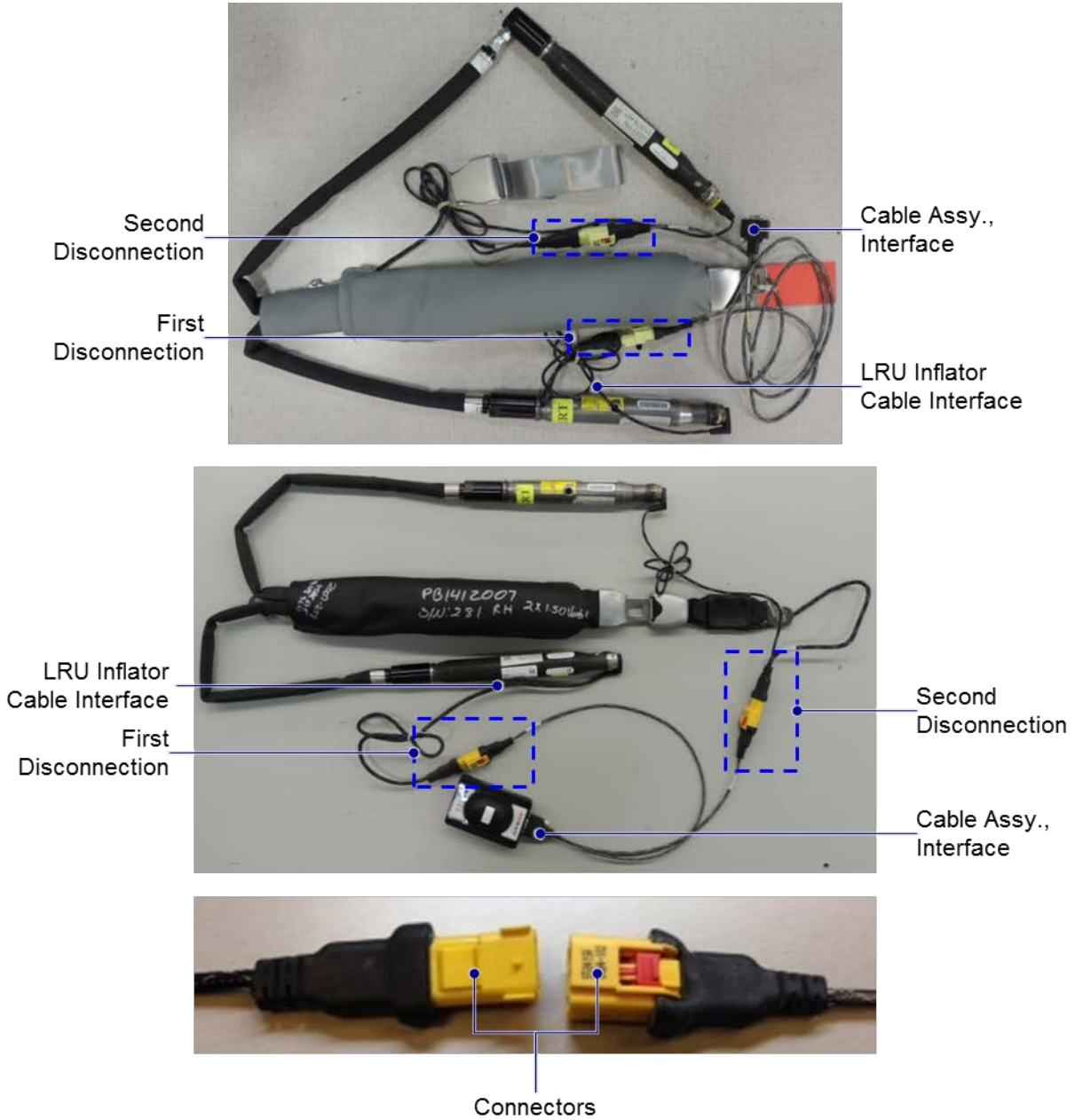


Figure 15 – System with Two Inflator Assemblies



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2. Ensure the inflatable connector half assembly and the inflatable buckle half assembly are unbuckled and remain separated.
3. Ensure the cable tie and the caution tag are secured to the connector on the inflatable connector half assembly (to prevent buckling of the inflatable connector half assembly and inflatable buckle half assembly).
4. Ensure the system is not accidentally enabled and protect the buckle from damage by folding the inflatable buckle half assembly on itself and securing it in protective packaging (e.g., bubble wrap) (to prevent it from unraveling).
5. Any protective covering applied to the seat or monument (to prevent scratches or marring) should be applied to the inflatable connector half assembly and inflatable buckle half assembly to protect against accidental buckling due to proximity.



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Attachment A. ARC Automotive Inc. MSDSs

ARC Automotive, Inc
Material Safety Data Sheet

1.0 Product and Contact Information

Product Name: Hybrid Airbag Inflator Assembly

Chemical Name / Synonym / Trade Name:	Inflator Assembly
Pseudonyms/Programs:	APH, AHS, SH5, CADH, PH7-120, PH7-90, PH5, PH5.1, CH3, CH5, Piston, HC38, HD38, ADH89, MHS, DH7, DH8, MPD, SP2, PH8, etc.
Manufacturer's Name:	ARC Automotive, Inc.
Address:	1601 Midpark Road Suite 100 Knoxville, TN 37921
ARC Information Phone Number:	(865) 583-7851
Emergency Phone (Chemtree) Inside USA	(800) 424-9300

2.0 Hazards Identification

Appearance and Odor: The device is a Steel Cylinder containing pressurized gas and energetic material.

HMIS: Health: 0
Flammability: 0
Physical Hazard: 2

Personal Protection: Heat Protective Gloves, Eye Protection, Hearing Protection
May cause burns if deployed by hand

Relevant routes of exposure: Skin, Eye, Hearing

Inhalation: None. If device vents/functions, the products of combustion have been demonstrated to comply with ACGIH exposure limits.

Skin contact: May cause burns if deployed by hand

Eye contact: Protect eyes from debris

Hearing: Hearing protection from impact noise, exceeds 85dBa

3.0 Composition / Information on Ingredients

Emergency Overview: The tamper-resistant, sealed metal container poses limited risk of chemical exposure before deployment. It **may** cause some skin and respirable irritation after deployment. If inflator is incinerated, broken, drilled into, crushed, or electric current is connected to lead wires, a physical hazard may exist. This inflator contains solid gas generate. *Do not* drill, break, or breach the steel container.

Potential Health Effects None expected when used as intended. Effluent gases from multiple deployments in testing situations may cause skin, eye, or mucous membrane irritation. Effluent gases in these situations must be effectively controlled through engineering systems designed and tested to remove applicable contaminants or PPE that will accomplish the same effect.

Human Health Effects and Symptoms of Overexposure

Inhalation	None expected when used as intended.
Skin Contact	None expected when used as intended.
Eyes	None expected when used as intended.
Ingestion	None expected when used as intended.
Carcinogenicity	None expected when used as intended.
Medical Conditions Aggravated by Exposure	None expected when used as intended.
Target Organs	None expected when used as intended.
Potential Environmental Effects	None expected when used as intended.

The inflator assembly is a steel pressure vessel containing igniter assemblies, compressed gas composed of between 0 and 170 grams of 75-98% argon / 2-50% helium mixture. It also contains the following potentially hazardous chemicals formulated into gas generant components.

<u>HAZARDOUS INGREDIENTS</u>		<u>CAS NO.</u>	<u>Carcinogen</u>
ARCAIR 102A/ 102H/ 102K/ 102J	up to 40g:	Not Listed	No
• Ammonium Nitrate		6484-52-2	No
• Guanidine Nitrate		506-93-4	No
• Potassium Nitrate		7757-79-1	No
• Potassium Perchlorate		7778-74-7	No
• Polyvinyl Alcohol		9002-89-5	No
• Copper Phthalocyanine		147-14-8	No
• Graphite		7782-42-5	No
ARCADENE 459 or ARCHITE 497L:	up to 30g:	Not Listed	No
• Polyurethane Binder System		68951-41-7	No
• Potassium Perchlorate		7778-74-7	No
• Dioctyl Adipate		103-23-1	No
• Polyvinyl Chloride		9002-86-2	No
• Lithium Carbonate		554-13-2	No
FS01	up to 3.5 g:	Not Listed	No
• Proprietary Ingredients		None	No
AIC	up to 0.5 g:	Not Listed	No
• Molybdenum		7439-98-1	No
• Silver Nitrate		7761-88-8	No
• Potassium Nitrate		7758-09-0	No
• Guanidine Nitrate		506-93-4	No
• Cab-O-Sil		112945-52-5	No
Initiator:	up to 2 at 260mg ea.	Not Listed	No
• Zirconium Potassium Perchlorate		Not listed	No

4.0 First Aid Measures

Inhalation: None
Skin Contact: Treat for second degree burn, cool burn area
Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention
Heating: Avoid repeated exposure

5.0 Fire and Explosive Date

Special Fire and Explosive Hazards: N/A
Extinguishing Media: Copious amounts of water
Special Fire Fighting Procedures: Apply water until the fire is extinguished and the device has cooled to a temperature less than 130°C
 The device will relieve pressure at relatively low temperatures and is designed to move no more than 2 to 3 meters when pressure is relieved. No special protective equipment required for firefighters.
Hazardous Combustion Products: N/A
Conditions Which Cause Ignition: When the device reaches a temperature in excess of 130 °C, it will release the stored gas. Additional heating will result in burning of the energetic materials. All energetic materials are consumed if the device reaches a temperature in excess of 300°C.

If the igniter is stimulated with an electrical current in the excess of 1.2 amps, the device will function; result is rapid combustion of the energetic materials and release of the stored gas.

6.0 Accidental Release Measures

Environmental precautions:	None expected
Clean up & Containment Method:	When handled and installed properly, no spills or leaks should occur. If inflator is ruptured and gas generant is present, clean up with non-sparking tools. Avoid spark, static electricity, and open flame. Avoid raising dust. Ventilate area. Wash spill site with water after material pick-up is complete.
Unusual Fire & Explosion Hazards:	The device (inflator assembly) is a container with compressed gas at up to 7000 psig pressure supplemented by rapidly burning gas generant materials. If the device is exposed to high temperature, the pressure system will release argon/helium gas mixture. Continued heating will cause the propellant to ignite and combustion gases to be released. The combustion gases are non-toxic, and have demonstrated compliance with ACGIH exposure limits.

7.0 Handling and Storage

Handling:	Avoid spark, ESD, impact, friction and open flame. Do not puncture or crush or drop. Post deployment, the surface of the inflator may have trace amounts of particulate and is usually hot. Residue may be irritating to the skin, eyes and mucous membranes.
Storage:	When not in use, devices should be stored in original shipping containers. Store away from high temperatures, open flame, static electricity, and other ignition sources. Store in accordance with federal, state, and local regulations. Recommend storage at ambient temperatures.

8.0 Exposure Controls Personal Protection

Engineering Controls:	Do not expose to excessive heat or flame. Do not puncture or crush. Do not expose to electrical current. Do not incinerate.
Respiratory Protection:	None
Skin Protection:	Heat Protection Gloves
Eye/Face Protection:	Safety Glasses
Hearing Protection:	Hearing Protection, Ear Muffs

9.0 Physical and Chemical Properties

Boiling Point:	N/A	Vapor Density:	N/A
Melting Point:	N/A	Specific Gravity:	N/A
Vapor Pressure:	N/A	Evaporation Rate:	N/A
Solubility:	N/A.		
Appearance and Odor:	The device is a Steel Cylinder/Toroid containing pressurized gas and energetic material.		

10.0 Stability and Reactivity

Stability:	Sealed unit is stable when used as designed.
Conditions to Avoid:	Sparks, static electricity, open flame, and hot temperatures
Incompatible Materials:	None in present form.

11.0 Toxicological Information

Carcinogen Status:	None Known
Target Organ and Other Health Effects:	None Known

12.0 Ecological Information

When used properly, no environmental effects are anticipated

Persistence and Degradability	Perchlorate Material – Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate
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13.0 Disposal Considerations

Information provided is for unused product only

Recommended method of disposal: Dispose in accordance with Federal, State and local regulations
EPA hazardous waste number: Not a RCRA Waste

14.0 Transportation Information

SPECIAL HANDLING, STORAGE, AND PACKAGING RECOMMENDATIONS: This MSDS is not intended to have all required shipping information. When not used, devices should be stored in original shipping containers. Do not drop or expose to temperatures above 107C.

Identification number UN3268
Proper shipping name Safety Device
Hazard Classification Class 9
Special Permit Product Dependent. Available upon request
For further information contact: ARC Automotive, Inc
1729 Midpark Rd.
Knoxville, TN 37921

15.0 Regulatory Information

United States Regulatory Information

TSCA 8 (b) Inventory Status: Contains none listed
TSCA 12 (b) Export Notification: None
CERCLAS/Sara None Listed
California Proposition 65: Could affect California's Perchlorate Contamination Prevention Act 2003 (AB 826)

16.0 Other Information

For Technical Information: Vice President of Engineering ARC Automotive Inc. Knoxville, TN 37921 (865) 583-7600	For Health and Safety Information: Health, Safety, & Environmental Manager ARC Automotive Inc. Knoxville, TN 37921 (865) 583-7851
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DISCLAIMER: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.

Gabe Bucca Date
VP Human Resources & Safety



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AmSafe NexGen Seatbelt & Structure-Mounted Airbag Systems Handling, Shipping, Storage, and
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Attachment B. Autoliv MSDS

SAFETY INFORMATION PYROTECHNIC ARTICLES

1.0 Identification of the Substance/Preparation and of the Company

Product Identifier	Safety devices also called; Air bag inflators, Air bag Modules, or Seat-belt Pretensioners
Recommended Use of the Products	These products shall only be used as safety devices in vehicles.
Company Identification:	Autoliv ASP, Inc. 3350 Airport Road Ogden, UT 84405 USA
Autoliv (24 Hour)	(435) 734-6835 International: 001-435-734-6835
PERS (Emergency)	(800) 633-8253 International: 001-801-629-0667

2.0 Hazards Identification

Classification of the Products

The tamper-resistant, sealed metal container poses limited risk of chemical exposure before deployment. It may cause some skin and respirable irritation after deployment. If inflator is incinerated, broken, drilled into, crushed, or electric current is connected to lead wires, a physical hazard may exist. This inflator contains gas generant or high pressure gas. Do not drill, break, or breach the steel container.

Label Elements

Not applicable.

Potential Health Effects

- None expected when used as intended.
- Effluent gases from multiple deployments in testing situations may cause skin, eye, or mucous membrane irritation.
- Effluent gases in these situations must be effectively controlled through engineering systems designed and tested to remove applicable contaminants or PPE that will accomplish the same effect.
- Risk of blast trauma from high-volume noise impulses during activation.
- Risk of frostbite injuries from released gases that are stored under high pressure.

3.0 Composition/Information on Ingredients

Pyrotechnic articles for vehicles include pyrotechnic components that are hermetically sealed off from the environment. These components will not be released under normal or reasonably foreseeable conditions of use including proper disposal. All housing parts are positively connected to each other. They shall only be opened by destroying the whole entity.

4.0 First-aid Measures

Description of First Aid Measures

General first-aid guidelines shall be followed

- If reaction products are inhaled: supply fresh air.
- If reaction products/activated items come into contact with skin: rinse affected area with clear water. Keep burns cool and free of germs. Cover open wounds using sterile material.
- If reaction products come into contact with eyes: rinse eyes with clear water.

Most Important Symptoms and Effects, Acute and Delayed

Activation may have the following effects:

- Risk of injury from hazardous projectiles, quickly moving parts and/or released high-speed gas beams.
- Blast trauma.
- Burns.
- Frostbite injuries due to contact with an activated compressed gas container or with compressed gases released from a compressed gas container.

Indication of Immediate Medical Attention and Special Treatment Needed

Not Applicable

5.0 Fire Fighting Measures**Suitable Extinguishing Media**

Standard extinguishing media (e.g. water, powder, foam, carbon dioxide).

Specific Hazards Arising from the Chemical

In case of fire, pyrotechnic articles may cause delayed activations. There is a risk of injuries from hazardous projectiles and loud bangs due to activation.

Advice for Firefighters

Extinguish the fire at a safe distance. Risk of hazardous projectiles.

6.0 Accidental Release Measures**Personal Precautions, Protective Equipment, and Emergency Procedures**

Ensure self-protection in case of emergency.

Environmental Precautions

None expected.

Methods and Materials for Containment and Cleaning Up

Follow all applicable disposal laws and regulations.

7.0 Handling and Storage

Handling and use of pyrotechnic articles for vehicles are only permitted within the context of authorized commercial operations.

Following activation, ensure that only completely activated items are left (i.e. all stages of the item have been activated or the compressed gas containers are depressurized, respectively). Items that have not been completely activated are subject to the prevailing rules and regulations regarding pyrotechnics and dangerous goods.

Precautions for Safe Handling

- Avoid high temperatures, open flame, static electricity, and other ignition sources.
- Post deployment, the surface of the inflator may have trace amounts of particulate and is usually hot.
- Residue may be irritating to the skin, eyes and mucous membranes.
- Latex or nitrile under leather gloves or equivalent is recommended if handling hot fired inflators.
- The state of construction provided by the manufacture at the time of delivery must not be changed or modified.
- Keep away from ignition sources; protect against heat and sparks.
- Do not modify or cover exhaust ports.

Conditions for Safe Storage, Including any Incompatibilities

- Follow national and regional rules and regulations for storage.
- Store dry (recommended ambient) and in the original packaging.

- Store away from high temperatures, and open flame.

Specific End Use(s)

The pyrotechnic articles concerned must only be used for the designated purpose given by the manufacturer.

8.0 Exposure Control/Personal Protection

Control Parameters

Not applicable.

Appropriate Engineering Controls

When activating articles use approved engineering controls to minimize exposure to effluent gases.

Personal Protective Equipment

When activating articles:

- Respiratory protection: appropriate respiratory protection must be worn if occupational exposure limit values are exceeded.
- Hand protection: no contact with activated, hot articles. Protective gloves made of cotton or leather when handling after activation.
- Ear protection: wear ear protection when activating articles.
- Eye protection: protective goggles
- Protective and hygiene measures: do not inhale reaction products, avoid skin contact, and use good personal hygiene at all times.

9.0 Physical and Chemical Properties

Not applicable.

10.0 Stability And Reactivity

When handled and stored properly (see section 7), no hazardous reactions are to be expected. Pyrotechnic articles remain stable under normal environmental conditions and under those temperature and pressure conditions expected during handling and storage.

11.0 Toxicology Information

When used properly, no health effects are anticipated.

Pyrotechnic articles for vehicles include pyrotechnic components that are hermetically sealed off from the environment. These cannot be released under normal or reasonably foreseeable conditions of use including proper disposal.

12.0 Ecological Information

When used properly, no environmental effects are anticipated.

Persistence and Degradability

Perchlorate Material – Special Handling May Apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate

13.0 Disposal Considerations

Articles that have not been activated or only partially activated must only be disposed of by authorized specialist companies and in accordance with prevailing rules and regulations.

Autoliv is in the unique position to offer its recycling services for air bag module units, individual inflators, and pretensioners to customers, suppliers, manufacturers, dealers and dismantlers.

Guidance on proper requirements for recyclable air bag materials is available from Promontory Airbag Recycling Center (PARC) by calling 1-800-667-4079 within the U.S. and Canada or 001-435-471-3315. Arrangements must be made with Autoliv to accept the recyclable items prior to shipment.

14.0 Transport Information

In accordance with 49CFR (U.S.), ICAO/IATA (air) and IMDG (sea).

Classification is based on the type of item, packaging and, if applicable, the existing assignment by the responsible authority. The sender shall be responsible for the correct classification of dangerous goods.

UN3268, Safety devices, Class 9. May also be shipped as: UN3268, Air bag modules or Air bag inflators, or Seat-belt Pretensioners, Class 9, PGIII

EMS Guide: F-B, S-X

15.0 Regulatory Information

OSHA Status	Manufactured article
TSCA Chemical Inventory:	The components of this product are listed on the Toxic Substance Control Act (TSCA) inventory.
CERCLA Reportable Quantity, 40 CFR 302:	No
EPCRA Section 302, Extremely Hazardous Substances:	No
EPCRA Section 311/312, Hazard Category:	Yes
EPCRA Section 313, Toxic Chemicals:	No
RCRA INFORMATION:	This product could meet the definition of RCRA Reactive Hazardous (D003) under 40 CFR 261.23. Other regulations may apply. Please check federal, state or provincial and local regulations.
Information for Community	Not Determined
EU Classifications	F, Xn
EU Risk Phrases	R2 Risk of explosion by shock, friction, fire R44 Risk of explosion if heated
EU Safety Phrases	S2 Keep out of reach of children S4 Keep away from living quarters S15 Keep away from heat S16 Keep away from sources of ignition S23 Do not breathe effluents S33 Take precautionary measures against static S37 Wear suitable gloves S59 Refer to manufacturer for recycling

16.0 Other Information

Supplier Information	The environmental, health and safety information contained herein is given in compliance with statutory obligations and relates only to the substance/preparation described in this safety information sheet. This safety information sheet is provided for information only, and is not intended to create or imply any representation, agreement or
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	warranty, whether express or implied, except to the extent required by applicable law. The environmental, health and safety information contained herein is believed to be accurate based on our current knowledge. It remains the sole responsibility of the customer to provide a safe workplace and to comply with all applicable laws and regulations. Nothing contained herein is to be construed as a recommendation for use in violation of any patent or of applicable laws or regulations.
HMIS Ratings	Health - 0 Flammability- 0 Reactivity- 1 PPE- X
Reason For Issue	Revision of SIS
Prepared By	Autoliv Regional Industrial Hygiene
Approved By	Autoliv Regional Health, Safety & Environmental
Approval Date	October 23, 2014
Supersedes Date	NA
Supersedes Revision	NA