

18881 IMMI Way Westfield, IN 46074-3001 USA 317.896.9531 Imminet.com

Safety Data Sheet

1.0 Identification of the Substance/Preparation and of the Company				
Product Name:	ITS, SRA, IHC, IKAB, S4S2 utili	zing ACH2 or ACH-2 EV Hybrid Inflator		
Company Identification	IMMI Imp 18881 IMMI Way Westfield, IN 46074	orter: IMMI Ltd. Coopies Field Coopies Lane, Morpeth Northumberland NE61 6JT, United Kingdom		
IMMI	(317) 896-9531			
24/7/365 Incident Response Number	Within the USA and Canada 1-800-424-9300 CCN724403 Outside USA and Canada +1 703-741-5971 (collect calls accepted) For emergency calls only. Non-emergency calls cannot be serviced at this number.			
Recommended Use	Inflators used in various applications such as: Air Bags, Rollover Protection Air Bags, and Rollover Protection units. Each system contains either an ACH 2 or ACH 2 EV Hybrid Inflators that consists of an electric initiator, lead wires, gas, and potentially a solid propellant.			

2.0 Hazards Identification

Emergency Overview:

The tamper-resistant, sealed metal container poses no risk of chemical exposure before deployment. If the container vessel is incinerated, broken, drilled into, electric current is connected to the lead wires, or if installed improperly, a physical hazard may exist during deployment. ACH-2 inflators contain a high pressure mix of Helium and Argon gas. ACH-2 EV inflators contain a high pressure mix of Helium and Argon gas and a small amount of pyrotechnic material, MIP-1191. DO NOT cut, drill, braze, solder, weld, strike, or probe the steel container.

Upon activation, the combustion byproducts of the pyrotechnic materials are instantaneously and in negligible quantities. Avoid breathing or ingestion products of combustion. If exposed to combustion products, move to fresh air. Seek medical attention if necessary. Overexposure due to inhalation of combustion products could irritate respiratory system or aggravate existing respiratory condition. Avoid contact of combustion residue with skin; if necessary, flush with water.

NOTE: If inflator is ruptured and igniter material is present, or if individuals are exposed to repeated deployments as experienced in a testing situation without safe and adequate engineering controls or PPE, see Autoliv MSDS #042, Airbag Inflator Igniter Generant (MIP-1191) for additional information.

Potential Health Effects	None expected when used as intended. Effluent gases from multiple deployments in testing situations may cause skin, eye, respiratory system, or mucus 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.		
Hazard Classification	Class 9 – Miscellaneous Hazardous Materials		
Pictogram			
Human Health Effects and Symptoms of O	verexposure		
Inhalation	Potential to irritate respiratory system or aggravate existing respiratory condition.		
Skin Contact	Potential skin irritant.		
Eyes	Potential eye irritant.		
Ingestion	Not available.		



Carcinogenicity	Not available.
Medical Conditions Aggravated by Exposure	Respiratory conditions.
Target Organs	Not available.
Potential Environmental Effects	Not available.

3.0 Composition/Info	ormation on Ingredie	nts			
All main modules (ins composition listed be		are constructed of iner	rt metals and plastics.	They contain the hybrid ir	flator with a chemical
Ingredients	Cas. No.	EC No.	% by Weight	EU Classification	EU R-Phrases
ACH 2.2	-		·		
Steel Casing & Hardware	Not Applicable	Not Applicable	92-96		None
Argon [Ar]	7440-37-1	231-147-0	3-5		None
Helium [He]	7440-59-7	231-168-5	1-3		None
	-		·		
ACH 2.2 EV					
Steel Casing & Hardware	N/A	N/A	92-96		None
Argon [Ar]	7440-37-1	231-147-0	3-5		None
Helium [He]	7440-59-7	231-168-5	1-3		None
Airbag Inflator Ignitor Generant [MIP-1191]	Not Applicable	Not Applicable	<1	F, Xn	R2,10,34,36,37,38, S2,4,13,15,16,18, 23,24/25,33,36/37/38, 47,59

4.0 First Aid Measures		
Inhalation	None expected when used as intended.	
Eyes	None expected when used as intended.	
Skin	None expected when used as intended.	
Ingestion	None expected when used as intended.	
Symptoms (Acute or Delayed)	None expected when used as intended.	
Immediate Medical Care/Special Treatment	None expected when used as intended.	

5.0 Fire Fighting Measures

Do not attempt to extinguish a fire involving a large number of systems or areas containing stored systems. Inflators will be activated at temperatures great than 266° F (130° C). At such temperature, this device may ignite and act as a projectile. Take precautions against projectile hazards. Use water from a safe distance to cover other building exposures. Allow inflators to cool for several hours before approaching them. Hazardous material specialists should be used for clean-up and approach in accordance with federal, state, and local regulations.

6.0 Accidental Release Measures	
Personal Precautions	If inflator is ruptured and gas generant is present, use impervious gloves, safety goggles, dust mask, safety shoes, and flame treated clothing when cleaning contaminants.
Environmental Precautions	N/A

Methods for Clean-up & Containment	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. Wear all PPE (Personal Protective Equipment) in accordance with "Personal Precautions" of Section 6.0 – Accidental Release Measures.
Emergency Procedures	Evacuate immediate area and/or room containing ruptured inflator and gas generant until contaminants are cleaned up in accordance with "Methods for Clean-up & Containment" of Section 6.0 – Accidental Release Measures.

7.0 Handling and Storage	
Handling	Avoid spark, ESD (Electrostatic Discharge), impact, friction, and open flame. 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, respiratory systems, and mucous membranes. Latex or nitrile gloves under leather gloves or equivalent is recommended if handling hot fired inflators. This device will be activated at temperatures great than 266° F (130° C). DO NOT cut, drill, braze, solder, weld, strike, or probe the steel container.
Storage	Recommend storage at ambient temperatures and on lower level racks. Store away from high temperatures, open flame, static electricity, and other ignition sources. Store in accordance with federal, state, and local regulations.

8.0 Exposure Control/Personal Protection					
Exposure Limit Values	OSHA-PEL	A	CGIH-TLV	0	Other Limits
ACH 2.2 & 2.2 EV					
Steel Casing & Hardware	Not Established	No	ot Established	١	lot Applicable
Argon [Ar]	Not Established	No	ot Established	١	lot Applicable
Helium [He]	Not Established	No	ot Established	١	lot Applicable
Air Bag Inflator Igniter Generant [MIP-1191]	Not Established	No	ot Established	Ν	Not Applicable
Engineering Controls		eye, or respiratory irritation. Use approved engineering controls, such as ventilation fans, to minimize exposure to effluent gases. Use approved personal protective equipment in accordance with Section 6.0 – Accidental Release Measures – as a short-term control until engineering controls are adequate.			
Personal Protective Equipment					
Respiratory Protection		For multiple deployment testing situations use a NIOSH approved respirator.			
Hand Protection		Nitrile or latex gloves under leather gloves or equivalent gloves.			
Eye Protection		Safety glasses or goggles.			
Skin Protection		Avoid skin contact with gas generant.			
General Hygiene Responsibilities		Use good personal hygiene at all times. Be sure to wash hands after handling inflators.			

9.0 Physical and Chemical Properties			
General Information			
Appearance, Physical Form Steel or aluminum structures with plastic deployment cover.			

Color	Varies				
Odor/Odor Threshold	None				
Important Health, Safety, and Environm	Important Health, Safety, and Environmental Information				
Boiling Point	Not Applicable				
Melt Point/Freeze Point	Not Applicable				
Flash Point	Not Applicable				
Flammability	ACH 2.2 - Gas (Helium), ACH 2.2 EV – Gas (Helium) and Solid (MIP-1191)				
9.0 Physical and Chemical Properties (cont.)				
рН	Not Applicable				
Solubility in Water	Not Applicable				
Specific Gravity	Not Applicable				
% Volatile by Weight	1-3%				
Vapor Pressure	Not Applicable				
Vapor Density	Not Applicable				
Partition Coefficient: n-octonal/water	Not Applicable				
Evaporation Rate	Not Applicable				
Explosive Properties	Projectile				
Viscosity	Not Applicable				
Decomposition Temperature	Not Applicable				
Auto-ignition Temperature	266° F (130° C)				
Relative Density	Not Applicable				
Upper Flammability/Explosive Limit	266° F (130° C)				
Lower Flammability/Explosive Limit	Not Applicable				

10.0 S	tability and	d Reactivity
--------	--------------	--------------

Reactivity	For specific test data for the chemical used in the inflators, contact Autoliv Inc., Autoliv Inflators +1-435-734-6849	
Chemical Stability	Seal unit is stable when used as designed, as well as handled and stored in accordance with Section 7.0 "Handling and Storage".	
Conditions to Avoid	Sparks, static electricity, open flame and hot temperatures.	
Incompatible Materials	None in present form.	
Hazardous Decomposition Products	May release carbon dioxide and trace amounts of carbon monoxide and hydrogen.	
Possibility of Degradation to Unstable Products	Not determined.	

11.0 Toxicology Information		
Acute Effects		
Oral LD50	Not applicable in present form.	
Dermal LD50	Not applicable in present form.	
Inhalation	Not applicable in present form.	
Ingestion	Not applicable in present form.	
Eye Irritation	Not applicable in present form.	

Skin Irritation	Not applicable in present form.
Sensitization	Not applicable in present form.
Chronic Effects	
Carcinogenicity	Not applicable in present form.
Mutagenicity	Not applicable in present form.
Reproductive Effects	Not applicable in present form.
Developmental Effects	Not applicable in present form.

12.0 Ecological Information

Ecotoxicity	Not available.		
Mobility in Environment	Not available.		
Persistence and Degradability	This device is sealed and under normal conditions poses no exposure hazard to human health or the environment.		
	California Use Only: Special handling may apply. See <u>www.dtsc</u> . Ca.gov/hazardouswaste/perchlorate		
Bioaccumulative Potential	Not available.		

13.0 Disposal Consideration

In the United States, disposal of fully functional airbag inflators is required by the EPA. These inflators are considered reactive hazardous waste (waste code D003). Inflators can be deactivated by thermal treatment. Dispose in accordance with Federal, State, and Local regulations.

14.0 Transportation Information			
This Safety Data Sheet is not intended to	o have all shipping information.		
Identification Number	UN3268		
Proper Shipping Name	Safety Devices		
Hazard Classification	Class 9 – Miscellaneous Hazardous Materials		
Packaging Group	-		
DOT Approval Number	Specific to the individual program		
For further information contact:	IMMI 18881 IMMI Way Westfield, IN 46074 317-896-9531		

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		

15.0 Regulatory Information (cont.)			
EPCRA Section 311/312, Hazard Category	Yes		
EPCRA Section 313, Toxic Chemicals	Yes		
RCRA Information	Please see Section 13, "Disposal Considerations" for recycling information. Otherwise, dispose of in accordance with all federal, state, and local regulations.		
Information for Community	Not determined		
EU Classifications	F, Xn		
EU Phrases	R2Risk of Explosion by shock, friction, fire, or other sources of ignitionR10FlammableR34Causes BurnsR36Irritating to eyesR37Irritating to respiratory systemR38Irritating to skinS2Keep out of reach of children.S4Keep away from living quartersS13Keep away from food, drink, and animal foodstuffsS15Keep away from heat		
EU Phrases (cont.)	\$16Keep away from sources of ignition\$18Handle and open container with care\$23Do not breathe effluents\$24/25Avoid contact with skin and eyes\$33Take precautionary measures against static\$36/37/39Wear suitable protective clothing, gloves, and eye/face protection\$47Keep at temperature not exceeding 266° F (130° C)\$59Refer 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 data sheet. This safety data sheet is provided for information only and is not intended to create or imply any representation, agreement or warranty, whether express or implied except to the extent				
HMIS Ratings	Health – 0	Flammability – 0	Reactivity – 1	PPE - X	
SDS Preparation Data	11/28/2018				
SDS Revision Level	05				
SDS Changes	Changed document from MSDS to OSHA compliant SDS				

 $\ensuremath{\textcircled{\sc 0}}$ 2018 IMMI All rights reserved. PN923515_Rev 05_4250P



923515