MUST ACCOMPANY THE AIRBAG SYSTEM WHENEVER SHIPPED OR TRANSPORTED IN AN AIRCRAFT HOLD



# PRODUCT INFORMATION SHEET

SAFETY DATA SHEET Revision 6 – 30 Oct 2024

The products referred to in this document can be defined as 'articles' under regulation (EC) No 1907/2006 (REACH). In light of this, the requirements for a Safety Data Sheet, as set out under article 31 and Annex II of REACH, is not applicable to these products. Accordingly, this Product Information Sheet is provided in the form of a Safety Data Sheet only as a service to our customer and is not based upon any particular requirement of REACH.

#### 1. Product and manufacturer Identification

Alpinestars Commercial Reference:6508322 - Tech-Air® 3 System<br/>6518322 - Stella Tech-Air® 3 System<br/>6500124 - Tech-Air® 3 Leather System<br/>6500224 - Tech-Air® 3 Canvas System<br/>6504625 - Tech-Air® 3 Basque police System<br/>6504725 - BSMC Tech-Air® 3 Canvas System<br/>65010125 - Stella Tech-Air® 3 Canvas System<br/>65050225 - Tech-Air® 3 v2 System<br/>6510325 - Tech-Air® 3 v2 System<br/>6505225 - Tech-Air® 3 v2 System<br/>6505125 - Tech-Air® 3 v2 System<br/>6505125 - Tech-Air® 3 v2 System<br/>6505125 - Tech-Air® 3 v2 Canvas System<br/>(hereinafter may also be referred to as the System)Alpinestars Certification Reference:ABS322

The above listed products (belonging to Tech-Air® 3 System family) are airbag systems intended to be worn over a protection jacket or other garments, or under a compatible outer garment. The System is a device intended to increase the level of protection offered to a motorcyclist in the event of an accident. An on-board Electronic Control Unit, powered by a lithium battery, monitors the rider accelerations and orientations to inflate the airbag if a dangerous situation is detected. The inflatable subassembly is not for any other use.

Manufacturer Information:

Alpinestars SpA Viale Fermi 5, Asolo (TV), 31011, ITALY Tel: +39 0423 5286

## 2. Hazard Identification

In case of deployment, the System will:

Effect

- a. Rapidly inflate and attempt to achieve a predefined shape
- b. Create a bang at the instant of inflation
- c. Slowly vent the filling gas

Hazard Possible mechanical injury if not worn correctly Possible hearing discomfort Possible irritant if inhaled in high concentrations

Note that function of the System will only occur if commanded by the Electronic Control Unit, or if the conditions in section 5 are met.

In general, under normal conditions of use, lithium batteries are a safe power source for electronic devices. In the case of the System, the battery is completely sealed in a casing in the lower back area.

A potential hazard may arise should the System's battery be unsealed, dismantled or tampered or punctured in which case the battery may spontaneously release a flammable gas mixture, which could cause burns and/or discharges.

The battery's content must not be exposed to water as if the negative electrode gets in contact with water, hydrogen gas is formed, which may be hazardous.

Batteries must not be exposed to temperatures under -20°C and above +60°C, or be incinerated.

For proper battery charging, the temperature must be between 0°C and + 45°C.

#### 3. Composition and information of the System

The System is composed by an Electronic Control Unit, a lithium battery of 9.36 Wh and an inflatable subassembly that consists of a sealed airbag chamber plus one Gas Inflator.

Airbag Chamber: Manufactured in PET yarn, laminated with a silicone coating

Lithium Battery: Ingredients:

Chemical name	Percent of content	CAS no.
Lithium nickel cobalt manganese oxide (Li(NiCoMn)O <sub>2</sub> )	25%~35%	182442-95-1
Graphite (C)	15%~20%	7782-42-5
Polyvinylidene fluoride (PVDF)	1%~5%	24937-79-9
Carbon Black	0.5%~3%	1333-86-4
Aluminum (Al)	21%~23%	7429-90-5
Copper (Cu)	10%~11%	7440-50-8
Lithium hexafluorophosphate (LiPF <sub>6</sub> )	10%~15%	21324-40-3

Airbag Gas Inflator: Closed and hermetic vessel containing 32 g of a compressed mixture of non-flammable gas of Division 2.2 (75% Argon and 25% Helium), and an initiator containing a mixture of a maximum of 600 mg of active substances (Potassium Perchlorate, Titanium diydride, Zirconium). Each Gas Inflator contains a Net Explosive Content (NEC) of 0.6 g. The housing of the inflator is metallic, inert and electrically conductive.

#### 4. First Aid Measures

In case of battery rupture provide maximum ventilation to clear out corrosive fumes/gases and pungent odor.

Inhalation: If the battery is leaking, remove to fresh air. If irritation persists, consult a doctor. In case of massive inhalation of inflator combustion gases, consult a doctor.

Skin contact: If the battery is leaking, remove all contaminated clothing and flush affected areas with plenty of water for at least 15 minutes. Do not apply greases or ointments.

Eye contact: If the battery is leaking, flush with plenty of water for at least 15 minutes. Get medical attention at once. In case of inflator inflation, wash eyes with clean water, and consult a doctor.

Ingestion: If the battery is leaking, rinse mouth and surrounding area with clear water at once. Consult a physician immediately for treatment.

Seek for medical assistance.

#### 5. Fire Fighting measures

Suitable extinguishing media: CO2 or Dry chemical extinguishers. In case only water is available, use large amounts of water. Use a positive pressure self-contained breathing apparatus if batteries are involved in the fire; full protective clothing is necessary. During water application, caution is advised as burning pieces of flammable battery particles may be ejected from the fire.

Protective actions:

\_ Fire near the storage area: evacuate the danger area; spray storage area and containers with water.

\_ Fire in the storage area: evacuate the danger area; fight the fire from a safe distance and spray the not ignited systems, to cool them.

Conditions which cause ignition:

When the temperature exceeds 130°C the Gas Inflator tank can open and release the stored gas. When the temperature exceeds 190°C the initiator can auto-ignite. Even after a fire, the inflators must be considered as active; so they must be ignited.

#### 6. Accidental Release Measures

The material contained within the battery would only be released under abusive conditions. In the event of battery rupture and leakage, collect all the released materials that are not hot or burning in the appropriate waste disposal container while wearing proper protective clothing and ventilate the area. Place in approved container and dispose in accordance with local regulations. In case of battery rupture use gloves, respiratory protection, safety goggles and respiratory equipment.

#### 7. Handling and Storage

#### Handling:

When System not worn, packaged in a box or unpackaged: no special handling is required for end users. The Electronic Control Unit must be switched off during handling. In this state no special System handling is required for end users. The System can be verified to be in the off state if there are no illuminated LEDs.

Never handle the Gas Inflators, unless differently indicated by Alpinestars and local laws and regulations.

Gas Inflators must be handled with care and only by people provided with the proper indications for the task.

Take measures to prevent electrostatic charge.

Never try to mount damaged inflators or battery or try to repair them. Never machine, drill, weld, solder, heat or modify inflators and batteries.

Local laws and regulations could provide special handling indications for dealers.

#### Storage:

Where possible store inside the original packaging. Where the original packaging is no longer available, the System is best stored suspended vertically on a hanger.

Storage temperature range:

- Less than 1 year: between 0°C and +25°C
- Less than 3 months: between 0°C and +35°C
- Do not expose to temperatures above 60°C
- Storage relative humidity range: 60±25%.

Never store inflators in areas with strong electromagnetic fields. Fire extinguishers must always be available in the storage area. Take measures against electrostatic charge (adequate discharge capacity, e.g. concrete floors, grounding of the storage facility).

#### 8. Exposure Controls and Personal Protection

Exposure Controls: No particular control is required.

Individual Protection:

No particular PPE is required. Local laws and regulations could provide mandatory use of PPE for dealers' employees.

## 9. Physical and Chemical Properties

#### Appearance:

The System is predominantly grey, blue, yellow or black in color, depending from the model. There is an inflator housing in the lower back area of the System. The Electronic Control Unit is present on the high back area.

## 10. Stability and Reactivity

If correctly handled and stored, the System is inherently stable. Conditions to avoid are:

- Exposure to excessive heat or flame (see paragraph 5)
- Crushing or puncturing of the System

## 11. Toxicological Information

In normal conditions, there is no risk during handling and use.

## 12. Ecological Information

When properly used and disposed, the System doesn't present environmental hazard.

## 13. Disposal Information

If the Gas Inflator is still full, the System may not be disposed. In this case, or in case of System with damaged inflators, the System should be sent back to Alpinestars in approved packaging in accordance with the certificate of transportation (see paragraph 14 hereunder), and correctly labelled.

If it is checked that the Gas Inflator is fired, the System may be disposed of in accordance with national waste regulations for fabrics, metals and electronic parts.

It is suggested that the System is returned to Alpinestars for disposal at the end of its life.

## 14. Transportation Information

According to international rules for transport, the following classification applies to the System:

Identification number	UN2990
Hazard Classification	Class 9
Proper shipping name	Life-Saving Appliances – Self-Inflating

For shipping with a professional carrier, see further instructions on Annex A.

The System can be carried in passenger aircraft as a carry-on and/or checked baggage, subject to airline company approval. Therefore, admission of the System onboard must be checked beforehand with the travel operator for each specific flight. Information on Annex B may be useful in this case.

The System contains one lithium battery pack <20 Wh, packed with the equipment, in compliance with UN3481 PI 967, Section II.

#### 15. Regulatory Information

The System (ABS322) has been CE certified as personal protective equipment under Regulation (EU) 2016/425. The airbag module has been CE certified under EU directive 2013/29/EU, with registration number 0080.P1.22.0001. The Gas Inflator has been CE certified under directive 2013/29/EU, referring to:

- EN/ISO 14451 series, registration number 0080.P1.11.0003
- NF EN 16263 series, registration number 0080.P1.16.0010

### 16. Additional Information

The information contained in this Safety Data Sheet relates only to the products listed above in paragraph 1. The information is correct to the best of Alpinestars' knowledge at the date of publication. This information is provided only for guidance on the System's safe handling, use, processing, storage, transportation and disposal and is not to be considered as a warranty or quality specification.

## ANNEX A

Packaging Instruction for transportation with Professional carrier:

	By Air	By Sea/Road
Hazard and handling Labelling		
Marking	UN2990 – Life Saving Appliances, Self Inflating Name and address of the shipper Name and address of the consignee Net weight of the package	UN2990 – Life Saving Appliances, Self Inflating
Remarks	Contact Carrier in advance to check for further requirements. Some carriers may require the following label:	

Example of labeling and marking:



## ANNEX B

Instruction for transportation on passenger aircrafts.

Life-saving appliances - Self-inflating can be transported on passenger aircraft subject to IATA Provisions (see table below). Check-In baggage is preferred. Contact beforehand the travel operator to get the approval for transportation. In case of needs, the table below may be cited.

Table 2.3.A. Provisions for Dangerous Goods Carried by Passengers or Crew (Subsection 2.3) 64th Edition (2023) Page 1/2

remitted in	n or as checke	d barrar			
	( ) the checke				
The approval of the operator	(s) is required	100	1050		
soholis beverages, when in retail packagings, containing more than 24% but not more than 70% alcohol by volume, in ceptacles not exceeding 5 L, with a total net quantity per person of 5 L. <i>det : Alcoholic bevorages containing 24% or less alcohol by volume are not subject to any restrictions.</i>	NO	YES	YES	NO	
nmunition, securely packaged (in Div. 1.4S, UN 0012 or UN 0014 only), in quantities not exceeding 5 kg gross weight per persor	n YES	YES	NO	NO	
That person is with service and an end of the service person mass into the community must be on more parameters and an end of the one more than an end of the one more than a community of the service of	YES	YES	YES	NO	
ggage with installed lithium batteries non-removable batteries exceeding - 0.3g lithium metal or 2.7 Wh.		FORE	IDDEN		
gege with installed lithium batteries: non-removable batteries. Batteries must contain no more than 0.3 g lithium metal or for lithium ion must not exceed 2.7 Wh; emovable batteries. Batteries must be removed if baggage is to be checked in. Removed batteries must be carried in the cabin	NO 1.	YES	YES	NO	
tteriers, spare/loose, including lithium batteries, non-spillable batteries, nickel-metal hydride batteries and dry batteries (see 3.5.8) for portable electronic devices must be carried in carry-on baggage only. Articles which have the primary purpose as a wer source, e.g. power banks are considered as spare batteries. These batteries must be individually protected to prevent short curits. the metal batteries: the lithium metal content must not exceed 2 g (see 2.3.5.8.4), thium ino batteries: the Watt-hour rating must not exceed 100 Wh (see 2.3.5.8.4), thium inited to a maximum of 20 spare batteries.* (*The operator may approve the carriage of more than 20 tteries). on-spillable batteries: must be 12 V or less and 100 Wh or less. Each person is limited to a maximum of 2 spare batteries (see 3.8.5.).	NO* *The operator t may approve the carriage of more than 20 batteries.	NO	YES	NO	
mping stoves and fuel containers that have contained a flammable liquid fuel, with empty fuel tank and/or fuel container (see ference 2.3.2.5 in the current copy of the IATA Dangerous Goods Regulations for expanded details. The Airline/Operators unercus Good Manual should also be viewed for any variations.)	YES	YES	NO	NO	
emicial Agent Monitoring Equipment, when carried by staff members of the Organization for the Prohibition of Chemical eapons on official travel (see reference 2.3.4.4 in the current copy of the IATA Dangerous Goods Regulations for expanded tails. The Airline/Operators Dangerous Good Manual should also be viewed for any variations.)	YES	YES	YES	NO	
sabling devices such as mace, pepper spray, etc containing an irritant or incapacitating substance are forbidden on the person, checked and carry-on baggage.	8	FORE	IDDEN		
y lee (Carbon dioxide, solid), in quantities not exceeding 2.5 kg per person when used to pack perishables not subject to these gulations in checked or carry-on baggage, provided the baggage (package) permits the release of carbon dioxide gas. Checked ggage must be marked "dry ice" or "carbon dioxide, solid" and with the net weight of dry ice or an indication that there is 2.5 or less dry ice.	YES	YES	YES	NO	
cigarettes (including e-cigars, e-pipes, other personal vaporizers) containing batteries must be individually protected to prevent cidental activation.	NO	NO	YES	NO	
ectro shock weapons (e.g. Tasers) containing dangerous goods such as explosives, compressed gases, lithium batteries, etc. are	2	FORE	IDDEN		
electric control of consequence of consequences of the conseque	NO	NO	YES	NO	
el cell cartridges, spare for portable electronic devices. Refer to reference 2.3.5.10 in the current copy of the IATA Dangerous sods Regulations for expanded details. The Airline/Operators Dangerous Good Manual should also be viewed for any ristions.)	NO	YES	YES	NO	
is cartridges, small, non-flammable containing carbon dioxide or other suitable gas in Division 2.2. Up to two (2) small rtridges fitted into a self-inflating safety device intended to be worn by a person, such as a life jacket or vext. Not more than to (2) devices per passenger and up to two (2) spare small cartridges per device, not more than four (4) cartridges up to 50 mL ater capacity for other devices (see reference 2.3.4.2 in the current copy of the IATA Dargerous Goods Regulations for expander that. The Aufle Operator to Demonstrate Good Menuel behalf also behaviour difference and the participation of the top top the top	YES d	YES	YES	NO	$\setminus$
tans. The Annuely Operators Dangerous Good Manual should also be viewed for any variations.)	NO	YES	YES	NO	$\mathbf{N}$
sa solinders, non-flammable, non-taxic worm for the operation of mechanical limbs. Also, spare cylinders of a similar size if auried to ensure an adequate supply for the duration of the journey	NO	YES	YES	NO	
status: mice numery open acts so argenous subcommandar should also be viewed for any variations.) as cylinders, non-flammable, non-toxic worm for the operation of mechanical limbs. Also, spare cylinders of a similar size if quired to ensure an adequate supply for the duration of the journey. air styling equipment containing a hydrocarbon gas cartridge, up to one (1) per passenger or crew-member, provided that the fety cover is securely fitted over the heating element. This hair styling equipment must not be used on board the aircraft. Spare scartrides for such bair styling equipment gain and the provided that the fety cover is securely fitted over the heating element. This hair styling equipment must not be used on board the aircraft. Spare		1		NO	
The numery open acts congeneous documentation of the portation of mechanical limbs. Also, spare cylinders, non-toxic worn for the operation of mechanical limbs. Also, spare cylinders not not supply for the duration of the journey. air styling equipment containing a hydrocarbon gas cartridge, up to one (1) per passenger or crew-member, provided that the fety cover is securely fitted over the heating element. This hair styling equipment must not be used on board the aircraft. Spare is a tridges for such hair styling equipment are not permitted in checked or carry-on baggage. air producing articles such as underwater torches (diving lamp) and soldering irons. (Refer to 2.3.4.6 in the current copy of the TA Dangerous Goods Regulations for expanded details. The Airline/Operators Dangerous Good Manual should also be viewed commentioners.	e YES	YES	YES		1
statis: mice similary operators bargerous block instantial should also be viewed for any variations.) statis: mice similary operators bargerous block instantial should also be viewed for any variations.) statis: a cylinder, non-frammable, non-toxic wom for the operation of mechanical limbs. Also, spare cylinders of a similar size if quired to ensure an adequate supply for the duration of the journey. air styling equipment containing a hydrocarbon gas cartridge, up to one (1) per passenger or crew-member, provided that the fety cover is securely fitted over the heating element. This hair styling equipment must not be used on board the aircraft. Spare is cartridges for such hair styling equipment are not permitted in checked or carry-on baggage. ast producing articles such as underwater torches (diving lamps) and soldering irons. (Refer to 2.3.4.6 in the current copy of the TA Dangerous Good Regulations for expanded details. The Airline/Operators Dangerous Good Manual should also be viewed r any variations.) ulabed packagings containing refrigerated liquid nitrogen (dry shipper), fully absorbed in a porcus material containing only non neerous spock.	P YES	YES	YES	NO	\
stants: The Anime' open acus oargerous obcommanus about also be viewed for any variations. The Anime' open acus oargerous obcommanus of the operation of mechanical limbs. Also, spare cylinders of a similar size if quired to ensure an adequate supply for the duration of the journey. <b>air styling equipment containing a hydrocarbong as cartidge</b> , up to one (1) per passenger or crew-member, provided that the fety cover is securely fitted over the heating element. This hair styling equipment must not be used on board the aircraft. Spare s cartidges for such hair styling equipment are not permitted in checked or carry-on baggage. <b>air producing articles</b> such as underwater torches (diving lamps) and soldering irons. (Refer to 2.3.4.6 in the current copy of the TA Dangerous Goods Regulations for expanded details. The Airline/Operators Dangerous Good Manual should also be viewed rany variations.) <b>ulated packagings containing refrigerated liquid nitrogen</b> (dry shipper), fully absorbed in a porous material containing only non ngerous goods. <b>simal combustion or fuel cell engines,</b> must meet A70 (see 2.3.5.15 in the current copy of the IATA Dangerous Goods	e YES	YES YES YES	YES YES NO	NO	\

Gas cartridges, small, non-flammable containing carbon dioxide or other suitable gas in Division 2.2. Up to two (2) small	YES	YES	YES	NO	L
cartridges fitted into a self-inflating safety device intended to be worn by a person, such as a life jacket or vest. Not more than					L
two (2) devices per passenger and up to two (2) spare small cartridges per device, not more than four (4) cartridges up to 50 mL					L
water capacity for other devices (see reference 2.3.4.2 in the current copy of the IATA Dangerous Goods Regulations for expanded					L
details. The Airline/Operators Dangerous Good Manual should also be viewed for any variations.)					