# No. 3634-I-00

# **Information Notice**

### SUBJECT: GENERAL

## Dry ice transportation (solid CO<sub>2</sub>)

For the attention of		
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AIRCRAFT	Version(s)	
CONCERNED	Civil	Military
EC120	В	
AS350	B, BA, BB, B1, B2, B3, D	L1
AS550		A2, C2, C3, U2
AS355	E, F, F1, F2, N, NP	
AS555		AF, AN, SN, UF, UN, AP
EC130	B4, T2	
SA365 / AS365	C1, C2, C3, N, N1, N2, N3	F, Fs, Fi, K, K2
AS565		MA, MB, SA, SB, UB, MBe
SA366		GA
EC155	B, B1	
SA330	J	Ba, L, Jm, S1, Sm
SA341	G	B, C, D, E, F, H
SA342	J	L, L1, M, M1, Ma
ALOUETTE II	313B, 3130, 318B, 318C, 3180	
ALOUETTE III	316B, 316C, 3160, 319B	
LAMA	315B	
EC225	LP	
EC725		AP
AS332	C, C1, L, L1, L2	B, B1, F1, M, M1
AS532		A2, U2, AC, AL, SC, UE, UL
EC175	В	
EC339		KUH/Surion
BO105	C (C23, CB, CB-4, CB-5), D (DB, DBS, DB-4, DBS-4, DBS-5), S (CS, CBS, CBS-4, CBS-5), LS A-3	CBS-5 KLH, E-4
MBB-BK117	A-1, A-3, A-4, B-1, B-2, C-1, C-2, C-2e, D-2, D-2m, D-3, D-3m	D-2m, D-3m
EC135	T1, T2, T2+, T3, P1, P2, P2+, P3, EC635 T1, EC635 T2+, EC635 T3, EC635 P2+, EC635 P3, T3H, P3H, EC635 T3H, EC635 P3H	

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This Information Notice is provided to assist operators in developing dangerous good procedures related to the transportation of dry ice (solid CO<sub>2</sub>) that is in conjunction with some Covid-19 vaccine actualities.

#### I. <u>Background</u>:

Dry ice is used to keep elements/substances (such as vaccines) at a very low temperature and is considered as a dangerous good by air transport regulations.

Refer to ICAO "Regulations for the safe transport of dangerous goods by air" and IATA "Dangerous Goods Regulations (DGR)" for details related to the transportation of dangerous goods. In addition, national regulations from FAA/EASA/CAA or any other local authority can be applicable.

Dry ice constantly diffuses odorless and colorless  $CO_2$  gas in a sublimation process. The sublimation rate of dry ice depends on the surrounding temperature, air pressure, airflow, the type of packaging used, the form of the dry ice, etc. In order to avoid physiological impact on people located in the same area, the  $CO_2$  concentration in this area shall not exceed 0.5 % (5000 ppm).

#### II. <u>Airbus Helicopters Position</u>:

The operator is responsible for the acceptance, loading and the actual transport of dangerous goods, including dry ice.

#### III. Airbus Helicopters Recommendations:

Airbus Helicopters provides the following recommendations to assist operators in developing dangerous good procedures related to dry ice in conjunction with the air transport of Covid-19 vaccines. These recommendations shall be considered as general guidance. Airbus Helicopters reminds operators that it is necessary to contact the competent national regulation authority for specific conditions linked to air transport of dry ice.

In case of discrepancy between the recommendations provided in this Information Notice and the content published by a national regulation authority, the content published by the national regulation authority prevails:

- Dry ice should only be carried in cargo compartments that do not vent into the helicopter cabin.
- Dry ice shall be contained in thermal shipping containers designed for the transport of medical products or serum cooled with dry ice (like the Covid-19 vaccine). Such containers and their accompanying documentation shall be marked "UN 1845 Carbon Dioxide Solid, As Coolant".
- The aircraft should be equipped with at least two CO<sub>2</sub> detectors capable of measuring the concentration of CO<sub>2</sub> in parts per million. In their operations manual, operators shall set out training and procedures for monitoring the exposure to CO<sub>2</sub> in flight and during loading and unloading.
- If the packages are equipped with data loggers, these must be evaluated for compliance with AMC1 CAT.GEN.MPA.140 as described in the <u>EASA Guidelines for the Use of Cargo Tracking Devices in relation to</u> the Covid-19 pandemic. The required CO<sub>2</sub> detectors are also considered to be Portable Electronic Devices and should be evaluated as such.
- The cargo shall be secured in the baggage compartment in a manner that will prevent any movement and protect it from sustaining damage, including by the movement of other cargo or baggage.



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- Fresh air vents/blowers and the bad weather window shall be serviceable. Cabin windows must be opened where possible. The Environmental Control System in ventilation mode shall be activated and set to maximum speed whenever possible. Cockpit and cabin heating should not be used to the possible extent. Use of the ECS recirculation mode should be avoided.
- Prior to the unloading of shipments containing dry ice, the baggage compartment should be vented and the baggage compartment tested for CO<sub>2</sub>.
- The carriage of dry ice shall be in accordance with the procedures established in the Operator's manuals and procedures. These procedures should include all the training requirements.
- <u>EASA Guidelines for the Transportation of Vaccines using Dry Ice</u> is a good source of information in the development of the Operator's risk assessment and procedures.

In case of operational constraints or specific situations that do not permit dry ice transportation in the cargo compartment, specific recommendations may be provided by the Airbus Helicopters Technical Support following a detailed analysis.

To proceed with your request, please raise a Technical Event through the Technical Request Management section available under Airbus World. While raising the request, please provide the following necessary information:

- Aircraft S/N
- Aircraft Cabin Arrangement
- Air Conditioning System (installed or not)
- Any STC modifications applied to the Airbus Helicopters Environmental Control System.

The opening configuration of the sliding doors or the removal of the doors is a contributing factor to the reduction of the CO<sub>2</sub> concentration rate to be considered (i.a.w. the flight manual limitation).

Do not hesitate to contact your usual Technical Support focal point if further details or information is required.

Airbus Helicopters remains committed to supporting your missions and operations.