

Attention Suppliers & Purchasers of Refrigerating Machines

It has come to Freightshop's attention that many manufactures of Refrigerating Machines have transitioned to the use of 2.1 Flammable Gas over previously more commonly used refrigerants i.e. R410a, R134a, R404a (2.2 Non- Flammable Gas).

Previously Refrigerating Machines containing less than 12kg of non-flammable refrigerant gas could travel by air under Special Provision A26

A26 (119) Refrigerating machines include air conditioning units and machines or other appliances which have been designed for the specific purpose of keeping food or other items at low temperature in an internal compartment. Refrigerating machines and refrigerating machine components are considered not subject to these Regulations if containing less than 12 kg of a gas in Division 2.2 or if containing less than 12 L ammonia solution (UN 2672).

Refrigerating Machines Containing 2.1 Flammable Gas

Refrigerating Machines containing 100 grams or more of 2.1 Flammable Gas refrigerant are **FORBIDDEN** to travel by air on ALL SERVICES. (please see excerpt below from IATA Dangerous Goods Regulations 58th Edition effective 1st Jan- 31st Dec 2017).

Special Provision A103

A Special Provision (A103) exists for Refrigerating Machines (UN2857) that states machines containing less than 100 grams of flammable, non-toxic, liquified gas are **PERMITTED TO FLY** provided they meet a certain criteria. (please see excerpt)

A103 Flammable liquefied gases must be contained within refrigerating machine components. These components must be designed and tested to at least three times the working pressure of the machinery. The refrigerating machines must be designed and constructed to contain the liquefied gas and preclude the risk of bursting or cracking of the pressure retaining components during normal conditions of transport. Refrigerating machines and refrigerating machine components are considered not subject to these Regulations if containing less than 100 g of flammable, non-toxic, liquefied gas.

Freightshop Requirements

Any Refrigerating Machines presented to Freightshop for air travel that containing 2.1 Flammable Gas refrigerant will require documentation from the manufacturer that states that each unit contains less than 100 grams of the gas, in-order for them to travel. Freightshop will not take responsibility for the delay of any shipment that has not had this information supplied. It is the responsibility of the consignor and/or the consignee to arrange alternative means of transport of the cargo if the units are forbidden. Freightshop may assist arranging a courier if required, with the prior consent of the paying party.



Dangerous Goods Regulations

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UN/ ID no.	Proper Shipping Name/Description	Class or Div. (Sub Risk)	Hazard Label(s)	PG	Passenger and Cargo Aircraft Ltd Qty				Cargo Aircraft Only			S.P. see 4.4	ERG Code
					EQ see 2.6	Pkg Inst	Max Net Qty/Pkg	Pkg Inst	Max Net Qty/Pkg	Pkg Inst	Max Net Qty/Pkg		
A	B	C	D	E	F	G	H	I	J	K	L	M	N
3220	Refrigerant gas R 125	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
1983	Refrigerant gas R 133a	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
3159	Refrigerant gas R 134a	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
2517	Refrigerant gas R 142b	2.1	Flamm. gas		E0	Forbidden		Forbidden		200	150 kg	A1	10L
2035	Refrigerant gas R 143a	2.1	Flamm. gas		E0	Forbidden		Forbidden		200	150 kg	A1	10L
1030	Refrigerant gas R 152a	2.1	Flamm. gas		E0	Forbidden		Forbidden		200	150 kg	A1	10L
2453	Refrigerant gas R 161	2.1	Flamm. gas		E0	Forbidden		Forbidden		200	150 kg	A1	10L
2424	Refrigerant gas R 218	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
3296	Refrigerant gas R 227	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
1976	Refrigerant gas R C318	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
3337	Refrigerant gas R 404A	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
3338	Refrigerant gas R 407A	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
3339	Refrigerant gas R 407B	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
3340	Refrigerant gas R 407C	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
2602	Refrigerant gas R 500	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
1973	Refrigerant gas R 502	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
2599	Refrigerant gas R 503	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
1959	Refrigerant gas R 1132a	2.1	Flamm. gas		E0	Forbidden		Forbidden		200	150 kg	A1	10L
1858	Refrigerant gas R 1216	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
2422	Refrigerant gas R 1318	2.2	Non-flamm. gas		E1	Forbidden		200	75 kg	200	150 kg		2L
3358	Refrigerating machines containing flammable, non-toxic, liquefied gas	2.1				Forbidden		Forbidden		Forbidden		A103	10L
2857	Refrigerating machines containing non-flammable, non-toxic, liquefied gas or ammonia solutions (UN 2672)	2.2	Non-flamm. gas		E0	Forbidden		See 211		See 211		A26	2L
	Refrigerating machines containing toxic liquefied gas or ammonia solution with more than 50% ammonia					Forbidden		Forbidden		Forbidden			
	Refrigerating machines with less than 12 kg non-flammable, non-toxic, liquefied gas or containing less than 12 L ammonia solution with 35% or less ammonia					Not Restricted		Not Restricted		Not Restricted			
3291	Regulated medical waste, n.o.s.	6.2	Infectious subst.	II	E0	Forbidden		622	No limit	622	No limit	A117	11L
0173	Release devices, explosive † Resinate of cobalt, precipitated, see Cobalt resinate, precipitated (UN 1318) Resinates, liquid, see Flammable liquid, n.o.s. * (UN 1993) Resinates, solid, see Flammable solid, organic, n.o.s. * (UN 1325)	1.4S	Explosive 1.4		E0	Forbidden		134	25 kg	134	100 kg	A802	3L
1866	Resin solution flammable Resorcin, see Resorcinol (UN 2876)	3	Flamm. liquid	I II III	E3 E2 E1	Forbidden Y341 Y344	1 L 1 L 10 L	351 353 355	1 L 5 L 60 L	361 364 366	30 L 60 L 220 L	A3	3L 3L 3L

