



Saft Aviation batteries Transportation requirements

1- Scope

Purpose of this document is to provide information on the transport of Saft aviation batteries.

Note: The information contained in this document is provided based on current status of the regulation. The communication of this document does not prevent the persons involved in the transport of aviation batteries to be aware about applicable regulation. The whole content of the applicable regulation handbooks remains the reference for the applicable requirements regarding UN transportation

2- Applicable regulation

According to dangerous goods transport regulations:

- IATA 56th revision
- IMDG Code 2014 edition

3- Definitions

“**Batteries, wet, filled with alkali**” are identified as **UN2795** Class 8, Corrosive; their packing group is N/A and are subject to IATA packing instruction **870** and IMDG packing instruction P801.

“**Batteries, wet, non-spillable**” are identified as **UN2800** Class 8, Corrosive; their packing group is N/A and are subject to IATA packing instruction **872** and IMDG packing instruction P003.

“**Non spillable**” batteries are defined in Appendix A of the regulations as being “designed and constructed so as to positively prevent leakage of the electrolyte, irrespective of the position of the battery. This is achieved by the use of jelly type electrolyte or porous absorbent separators or by specially designed filling and venting devices.”

Packing instruction 872 states that batteries can be considered as **non spillable** provided that they are capable of withstanding vibration (including 1.5h inverted) and pressure differential (including 6h inverted) tests without leakage.

4- Requirements

SAFT ships all existing nickel-cadmium batteries or cells for aircraft under the category UN2795 (Batteries, wet, filled with alkali) according to packing instruction 870 (see Appendix 1 for the list of aircraft batteries shipped under the classification UN 2795 and Appendix 2 for the list of aircraft cells shipped under the classification UN 2795).

Technical documentation is available at: <http://www.saftbatteries.com>



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There is no regulation concerning the state of charge of the battery - only the packaging which must meet the following:

- UN Packing group II
 - o Ensure battery is upright,
 - o Incorporate leak proof / alkali proof liner, in case external packaging does not provide adequate protection and alkali resistance
 - o Ensure battery is protected from short circuiting. (if applicable)
- Outer packaging is defined by packing instruction 870 e.g. **fiberboard UN4G**.
 - o Material of packaging must be compatible with alkali

Saft Bordeaux factory uses two types of cardboard:

- Standard A1 cardboard to pack and ship aviation batteries or cells. It was validated by the BVT to correspond to IATA regulations. The following agreement reference is printed on the cardboard:

4G/Y54/S/year of package manufacture
F/BVT/20907/SAFT

- Standard A2 cardboard to pack and ship aviation batteries or cells. It was validated by the BVT to correspond to IATA regulations. The following agreement reference is printed on the cardboard:

4G/Y58/S/year of package manufacture
F/BVT/20909/SAFT

SAFT America factory uses different types of packages to ship aviation batteries or cells. They were tested by Southeast Testing & Engineering in Duluth, GA, to correspond to IATA regulations.

The following agreement reference is printed on the cardboard depending on the type of package used:

- UN4G/Y46.3/S/*
*/USA/+BZ0858

- UN4G/Y52.1/S/*
*/USA/+BZ0859

- UN4G/Y73.9/S/*
*/USA/+BZ0860

* Insert Year of package manufacture

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Appendix 1: Aviation batteries list shipped under the classification UN 2795 1xxx series (Part Number beginning with 1)

1 Series			
10-15	16106-1	1718	1656-6
12 LKB VO	16158	1811CH1	1658
1201	16556-1	187CH	1756
12101	1656	1201	1756-1
1277-1	1656-1	12101	1756-2
1277-3	1656-2	12277-2	1756-3
151CH1	1656-5	1277	176CH
151CH2	1656-6	1606-1	176CH3
154CH1	1658	16156 w/kit	176CH6
154CH1 FT	1658-1	16156/w kit	A185CH
1606	1658-2	16156-1/w Kit	B1513CH1
1606-1	1658-6	16256-3	B153CH1
1608	1666-1	1656	GB-170
1608-1	170CH-1	1656-1	

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Aviation batteries list shipped under the classification UN 2795 2xxx series (Part Number beginning with 2)

2 Series			
20108	2376-1	2708-2	2778-5
20108-1	2376-2	270CH-1	2778-7
2-10-35 A	2376-4	270CH2	2778-9
23150	2376-5	27178-2	277CH1
23171-4	2376-7	2726CH1	20126-2
23175	2376-8	2726CH2	20126-3
23176	2378	2726CH3	23176
23180	2378-2	27278-2	23180
2325VX-1	2500	272CH1	23186
2325VX2	2506 (H)	27378	23576-1
2325VX2 FT	2506-1 (H)	27478	23576-2
23376	2506-1 (V)	274CH1	23676-1
23378	2506-2	274CH1 FT	23676-2
23390	2506A-2	274CH2	2371-4
23396	25106	27559-1	2371-5
23476	25106-2	2758	2376
23478	2520	275CH3	2376-1
23491	2520 INST	276CH	2376-10
23491-3	26108	276CH1	2376-2
23491-4	26108-1	276CH10	2376-3
23498-1	26108-4	276CH23	2376-4
2353-1	26108-5	276CH24	2376-5
23578	26108-6	276CH7	2386-1
235VX-1	26108-7	276CH8	257CH9
23678-1	2618	2778	27578-2
23678-2	26508	2778-1	A20108
2371	26508-1	2778-14	A2506A-2
2371-1	26608	2778-15	A2710CH1
2371-6	26708	2778-18	A275CH1
2371-7	26808	2778-2	A278CH2
2376	2708-1	2778-4	A297CD

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Aviation batteries list shipped under the classification UN 2795 3xxx series (Part Number beginning with 3)

3 Series			
310VX-1	340CD-1	345CD1	34LB02
310VX-2	340CD1A	3759-2	AA36A
340CD	340CD-2		

Aviation batteries list shipped under the classification UN 2795 4xxx series (Part Number beginning with 4)

4 Series			
4000 A1	40278-14	4078-4	4076
4000 A1(H)	40306	4078-5	4076-1
4000 A1(V)	40308-1	4078-7	4076-10
4000 A1-1(H)	40308-5	4078-8	4076-11
4000 A1-1(V)	40342	4079-1	4076-12
4006 A (H)	40371 (*)	4079-5	4076-13
4006 A (V)	403CH	4079-6	4076-15
4006 A-1 (H)	4050 A1	4079-9	4076-3
4006 A-1 (V)	4050 A1-1	407CH5	4076-5
4008-1 (H)	4059	407CH-7	4076-8
400CH	405CH	4080	4076-9
40100	405CH-1	40978-1	40776
40100 A	405CH10	409CH2	4078
40100-1	405CH2	4410CH1	4078-10
40108-1	405CH23	441CH1	4078-14
40108-2	405CH3	441CH1 FT	4078-19
40109-1	405CH6	442CH1	4078-2
4010CH	405CH7	447CH1	4078-24
40118	40678-2	447CH12	4078-3
40118-1	406CH1	447CH3	4078-7
40118-2	4071	447CH4	4079-10
40118-4	4071-1	447CH7	4079-4
40118-5	4071-10	4608-1	407CH9
40142 (*)	4071-2	4000A1	40876
40152	4076	4000A1-1	40876-10
40153	4076-1	4006A-1	416381
40176-4	4076-10	401076	427CK1
40176-7	4076-15	401176-9	4317CH1
40178	4076-17	40176-4	4318CH24

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40178-21	4076-2	40176-7	437CH14
40179	4076-21	40178-24	438CH2
40179-7	4076-23	40178-26	43BO34LB03
40200	4076-3	4017CH-3	43BO50LB01
40200 (H)	4076-5	40253	4417CH14
40202	4076-9	4025CH-1	4579
40206	4077	40376	A400CH
40206-2	4078	4037CH	A40279-1
40208	4078-1	40576	A405CH2
40208-1	4078-11	40576-14	A4076-21
40208-2	4078-13	40678-2	A4078-12
40208-4	4078-16	40678-4	A407CH-3
40208-5	4078-17	4071	A408CH
40208-7	4078-18	4071-1	A447CH12
4020CH	4078-22	4071-2	AA42B
40278-12	4078-25	4071-3	

Aviation batteries list shipped under the classification UN 2795 5xxx
& 6xxx & 7xxx series (Part Number beginning with 5 or 6 or 7)

5 & 6 & 7 Series			
5015CH3	5317CH-1	539CH2	605
505CH	5319CH1	5512CH1	616
505CH1	5347CH1	A5025CH1	6206
505CH2	539CH1	A5025CH2	666
505CH3	539CH-1	A530CH1	708 CIBLE 7AH
5103			

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Appendix 2: Aviation cells list shipped under the classification UN2795

Cells			
43B034AC14-2	VHP170KH-3	VO12LKB-SQ	VP120KHB
43B050AC01-2	VHP170KH-3SQ	VO15K	VP120KH-MS
CVD34KH	VHP200KH	VO15LK	VP140KA-MS
CVH150KH	VHP200KH-SQ	VO16KH	VP140KA-MSBA
CVH175KH	VHP230KA-3	VO16KH (steel)	VP160KH
CVH180KH	VHP260KH-3	VO23KH	VP160KM
CVH180KH-SQ	VHP260KH-3SQ	VO23KH	VP160KM-SQ
CVH270KH	VHP260KH-3-SQ	VO23KH-SQ	VP170KH
CVH271KH	VHP270KH-3	VO25KA	VP200KHB
CVH271KH-SQ	VHP270KH-3SQ	VO25KA	VP230KH
CVH400KA	VHP270KH-3-SQ	VO25KH	VP230KHB
CVH400KA-AC	VHP370KA-3	VO25KH	VP250KH
CVH400KH-SQ	VHP370KH	VO35D	VP250KH-C
CVH401KH	VHP370KH-3SQ	VO35D	VP340KA
CVH441KH	VHP430KH	VO35K GA	VP400KH
CVH441KH-SQ	VHP430KH-3	VO3KHB	VP400KH-AC
CVH500KA	VHP430KH-3SQ	VO3KHB	VP400KH-MS
CVH500KH-SQ	VHP430KH-3-SQ	VO40KH	VP400KH-SQ
CVH530KA	VHP450KA-1	VO40KH	VP510KA
CVH531KA	VHP450KH-1	VO7L	VP65K
CVH533KH-SQ	VHP460KH	VOEC40KH	VXP230KH
HVO1-1	VO12LKB	VOEC40KH	VXP310KH

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