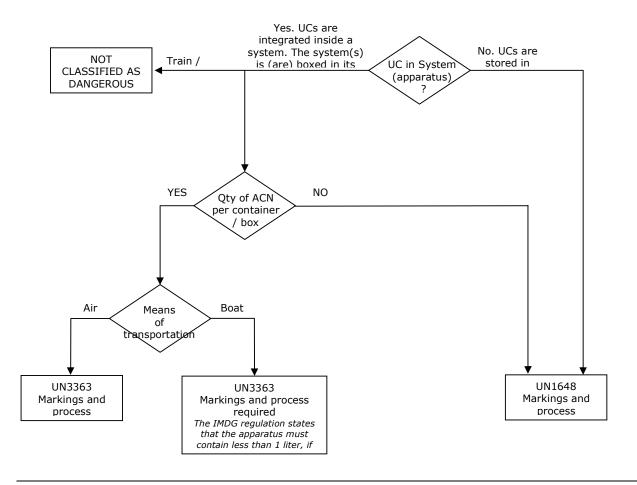


# Shipping information for transportation of Ultracapacitors

Maxwell Technologies<sup>®</sup> BOOSTCAP<sup>®</sup> ultracapacitor products contain Acetonitrile, which is identified as UN1648, Acetonitrile, Class 3 (Flammable). Ultracapacitors as articles are not specifically listed nor exempted from dangerous goods transportation regulations. Maxwell Technologies has elected to handle its large cell ultracapacitor product line as UN1648. As such, transportation of BOOSTCAP large cell ultracapacitors should conform to regulations applicable to UN1648, including labeling, packaging, and provisions for excepted and limited quantities. Maxwell Technologies ships all large cell ultracapacitor products in accordance with these regulations.

Once the ultracapacitors have been integrated in a system or an appliance, customers or transporters will need to know the quantity in litres of Acetonitrile contained in the used product (see the Maxwell product matrix in exhibit 2) and refer to the regulations for a given transportation mode as listed below in this document.

Note: PC and HC product lines are packaged in sufficiently small quantities that these dangerous goods regulations do not apply under either UN1648 or UN3363 (see Exhibit 3).





#### 1. AIR FREIGHT

**International Air Transport Association (IATA):** 

All above-mentioned products are considered as Dangerous Goods, per regulations of IATA. However, the rules differ from UN 1648 to UN 3363. Shipping information is as follows:

#### <u>UN 1648</u>

A)	Identification UN number	1648
	Proper shipping name:	Acetonitrile
	Hazard Class description:	Class 3 (Flammable)
D)	Subsidiary Risk :	none
E)	Hazard label required :	3 + UN 1648
	Packing group:	II
G)	Packing Inst. Passenger & cargo aircraft:	Y305
H)	Limited quantity:	1 liter
I)	Packing Inst. Passenger & cargo aircraft:	305
J)	Maximal quantity into parcel:	5 liter
K)	Packing Inst. cargo aircraft:	307
L)	Maximal quantity into parcel:	60 liter
M)	Particular disposition:	none
N)	Identification code:	3L
<u>UN 33</u>	<u>63</u>	
A)	Identification UN number	3363
B)	Proper shipping name:	Dangerous Goods in Apparatus
C)	Hazard Class description:	9 (Miscellaneous)
D)	Subsidiary Risk :	none
E)	Hazard label required :	9
F)	Packing group:	
G)	Packing Inst. Passenger & cargo aircraft:	See 916
H)	Limited quantity:	see 2.7 and table 2.7.A
I)	Packing Inst. Passenger & cargo aircraft:	see 916
	Maximal quantity into parcel:	see 916
K)	Packing Inst. cargo aircraft:	see 916
	Maximal quantity into parcel:	see 916
	Particular disposition:	A48 + A107
	Identification code:	9L
,		

*916: if qty of Acetonitrile per box is less < 0.5 litre, then UN3363 is applicable, otherwise it is UN1648* 



#### 2. BOAT TRANSPORTATION:

The International Maritime Dangerous Goods (IMDG):

All above-mentioned products are considered as Dangerous Goods, per regulations of IMDG. However, the rules differ from UN 1648 to UN 3363. Shipping information is as follows:

### UN 1648

<ol> <li>Identification UN number:</li> </ol>	
,	UN 1648
2) Proper shipping name:	Acetonitrile
3) Hazard Class number & description:	Class 3 (Flammable)
Hazard label required :	Class 3 (flammable)
4) Subsidiary risk	none
5) Packing group:	II
6) Specials dispositions	none
7) Limited Quantities	1 liter
8) Packing instruction	P001
9) Specials dispositions	none
10) GRV packing instruction	IBC002
11) GRV disposition	none
12) – 14)	Container + Tank only
15) Security	FE, - SD
16) Stowing and separately storage	Category B
17) Property and observation:	Highly flammable (flashpoint less than +23 degrees
,	Celsius)
	Leaking liquid evaporates - risk of explosion Vapours
	may be narcotic, high concentration may lead to
	unconsciousness May decompose in a fire giving off
	toxic fumes. The effect of inhalation may be delayed.
	May form explosive mixtures with air, particularly in
	empty un-cleaned receptacles Heating will cause pressure
	rise - with risk of bursting and explosion Possible hazards
	to surface waters and purification plants.
	to surface waters and purification plants.
<u>UN 3363</u>	
1) Identification UN number:	UN 3363
2) Proper shipping name:	
	Dangerous Goods in Apparatus
	Dangerous Goods in Apparatus 9 (Miscellaneous)
3) Hazard Class number & description:	9 (Miscellaneous)
3) Hazard Class number & description: Hazard label required :	9 (Miscellaneous) 9
<ul><li>3) Hazard Class number &amp; description: Hazard label required :</li><li>4) Subsidiary risk</li></ul>	9 (Miscellaneous) 9 none
<ol> <li>Hazard Class number &amp; description: Hazard label required :</li> <li>Subsidiary risk</li> <li>Packing group:</li> </ol>	9 (Miscellaneous) 9 none 
<ol> <li>3) Hazard Class number &amp; description: Hazard label required :</li> <li>4) Subsidiary risk</li> <li>5) Packing group:</li> <li>6) Specials dispositions</li> </ol>	9 (Miscellaneous) 9 none  301
<ol> <li>3) Hazard Class number &amp; description: Hazard label required :</li> <li>4) Subsidiary risk</li> <li>5) Packing group:</li> <li>6) Specials dispositions</li> <li>7) Limited Quantities</li> </ol>	9 (Miscellaneous) 9 none  301 none
<ol> <li>3) Hazard Class number &amp; description: Hazard label required :</li> <li>4) Subsidiary risk</li> <li>5) Packing group:</li> <li>6) Specials dispositions</li> <li>7) Limited Quantities</li> <li>8) Packing instruction</li> </ol>	9 (Miscellaneous) 9 none  301 none P907
<ol> <li>Hazard Class number &amp; description: Hazard label required :</li> <li>Subsidiary risk</li> <li>Packing group:</li> <li>Specials dispositions</li> <li>Limited Quantities</li> <li>Packing instruction</li> <li>Specials dispositions</li> </ol>	9 (Miscellaneous) 9 none  301 none
<ol> <li>3) Hazard Class number &amp; description: Hazard label required :</li> <li>4) Subsidiary risk</li> <li>5) Packing group:</li> <li>6) Specials dispositions</li> <li>7) Limited Quantities</li> <li>8) Packing instruction</li> <li>9) Specials dispositions</li> <li>10) GRV packing instruction</li> </ol>	9 (Miscellaneous) 9 none  301 none P907
<ol> <li>3) Hazard Class number &amp; description: Hazard label required :</li> <li>4) Subsidiary risk</li> <li>5) Packing group:</li> <li>6) Specials dispositions</li> <li>7) Limited Quantities</li> <li>8) Packing instruction</li> <li>9) Specials dispositions</li> <li>10) GRV packing instruction</li> <li>11) GRV disposition</li> </ol>	9 (Miscellaneous) 9 none  301 none P907 none 
<ol> <li>3) Hazard Class number &amp; description: Hazard label required :</li> <li>4) Subsidiary risk</li> <li>5) Packing group:</li> <li>6) Specials dispositions</li> <li>7) Limited Quantities</li> <li>8) Packing instruction</li> <li>9) Specials dispositions</li> <li>10) GRV packing instruction</li> <li>11) GRV disposition</li> <li>12) - 14)</li> </ol>	9 (Miscellaneous) 9 none  301 none P907 none    Container + Tank only
<ol> <li>3) Hazard Class number &amp; description: Hazard label required :</li> <li>4) Subsidiary risk</li> <li>5) Packing group:</li> <li>6) Specials dispositions</li> <li>7) Limited Quantities</li> <li>8) Packing instruction</li> <li>9) Specials dispositions</li> <li>10) GRV packing instruction</li> <li>11) GRV disposition</li> <li>12) - 14)</li> <li>15) Security</li> </ol>	9 (Miscellaneous) 9 none  301 none P907 none    Container + Tank only F-A, - S-P
<ol> <li>3) Hazard Class number &amp; description: Hazard label required :</li> <li>4) Subsidiary risk</li> <li>5) Packing group:</li> <li>6) Specials dispositions</li> <li>7) Limited Quantities</li> <li>8) Packing instruction</li> <li>9) Specials dispositions</li> <li>10) GRV packing instruction</li> <li>11) GRV disposition</li> <li>12) - 14)</li> <li>15) Security</li> <li>16) Stowing and separately storage</li> </ol>	9 (Miscellaneous) 9 none  301 none P907 none      Container + Tank only F-A, - S-P Category A
<ol> <li>3) Hazard Class number &amp; description: Hazard label required :</li> <li>4) Subsidiary risk</li> <li>5) Packing group:</li> <li>6) Specials dispositions</li> <li>7) Limited Quantities</li> <li>8) Packing instruction</li> <li>9) Specials dispositions</li> <li>10) GRV packing instruction</li> <li>11) GRV disposition</li> <li>12) - 14)</li> <li>15) Security</li> </ol>	9 (Miscellaneous) 9 none  301 none P907 none    Container + Tank only F-A, - S-P

301: if qty of Acetonitrile per apparatus is less < 1 litre, then UN3363 is applicable, otherwise it is UN1648 Maxwell-Technologies



### 3. ROAD / RAIL TRANSPORTATION

European Agreement concerning the International carriage of Dangerous Goods by Road (ADR) – also applicable for transport by rail (RID):

Only products that are UN 1648 are subject to this agreement. UN 3363 is exempted from this agreement. Shipping information is as follows:

#### <u>UN 1648</u>

1) identification UN number:	1648
<ol><li>Proper shipping name:</li></ol>	Acétonitrile
3a) Hazard Class number & description:	Class 3 (Flammable)
3b) Code of classification:	F1
4) Packing group:	II
5) Hazard label required:	3
6) Special dispositions	none
7) Limited quantities	LQ 4 (3 liter / max gross weight
	= 30kg per parcel) / (Pal.1 liter/30 liter)
8) Packing instruction:	P001 IBC02 R001
9a) Special packing disposition:	
9b) Packing disposition (Common)	MP19
10 to 14	only for Container tank transport
15) Transport category and Tunnel	2 (DIE)
16 to 18 special dispositions	
19) Exploitation	S2 S20
20) Dangererous code:	33

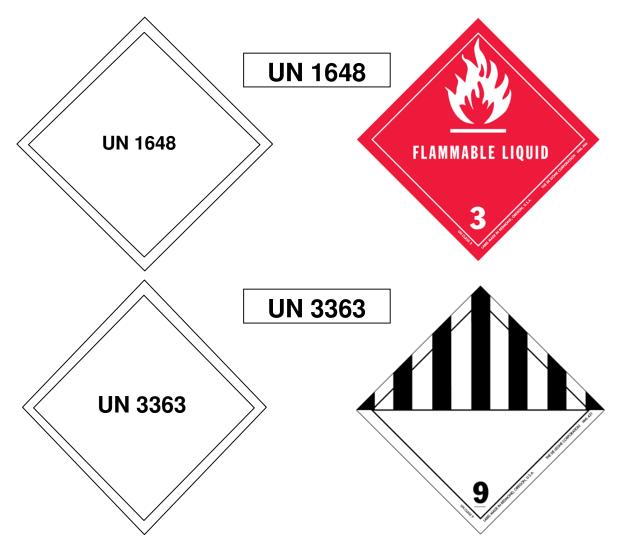
#### <u>UN 3363</u>

Proper shipping name: Hazard Class number & description: UN Identification number: Packing group: Hazard label required:

#### NOT CLASSIFIED AS DANGEROUS GOODS



### Exhibit 1 - Hazard labels:





## Exhibit 2 - Product matrix for the quantity of Acetonitrile per unit:

Part Number	ACN content (Litre)
HC Cell Family	
BCAP0025 P270	0.002
BCAP0050 P270	0.004
BCAP0100 P270	0.007
BCAP0150 P270	0.009
D-cell Family Cells	
D-Cell BCAP0350 E250	0.025
D-Cell BCAP0310 P250	0.022
D-Cell BCAP0350 E270	0.025
D-Cell BCAP0310 P270	0.022
MC Family Cells	
BCAP0650 E270 T0x	0.040
BCAP0650 P270 T0x	0.040
BCAP1200 E270 T0x	0.070
BCAP1200 P270 T0x	0.070
BCAP1500 E270 T0x	0.090
BCAP1500 P270 T0x	0.090
BCAP2000 E270 T0x	0.110
BCAP2000 P270 T0x	0.110
BCAP2600 E270 T0x	0.150
BCAP2600 E270 T0x	0.150
BCAP2600 P270 T0x	0.150
BCAP3000 E270 T0x	0.170
BCAP3000 P270 T0x	0.170
K2 Family Cells	0.170
BCAP0650 P270 K0x	0.040
BCAP1200 P270 K0x	0.070
BCAP1500 P270 K0x	0.090
BCAP2000 P270 K0x	0.110
BCAP3000 P270 K0x	0.170
15V Modules	0.170
BMOD/BPAK 0052	0.132
BMOD/BPAK 0058	0.150
BPAK 0020 and 23	0.066
	0.066
16V Modules BMOD0110 E016 B01 02	0.24
BMOD0110 P016 B01 02	0.24
BMOD0250 E016 B01 02	0.54
BMOD0250 P016 B01 02	0.54
BMOD0500 E016 B01 02	1.02
BMOD0500 P016 B01 02	1.02
48V Modules	
BMOD0083 E048 B01 02	1.62
BMOD0083 P048 B01 02	1.62
BMOD0110 E048 B01 02	1.98
BMOD0110 P048 B01 02	1.98
BMOD0145 E048 B01	2.70
BMOD0145 P048 B01	2.70
BMOD0145 E048 B02	2.70



Part Number	ACN content (Litre)
BMOD0165 E048 B01	3.06
BMOD0165 P048 B01	3.06
75V Modules	
BMOD0094 E075	5.44
HTM modules	
390V HTM	21.9
125V HTM	8.16



Exhibit 3. Product matrix for the quantity of Acetonitrile per unit for products which do not require "dangerous goods" declaration and packaging as shipped by Maxwell Technologies.

	ACN content (Litre)
PC Family	
PC-5	0.0006
PC-10 all models	0.001
HC Family	
BCAP0005 P270	0.0006
BCAP0010 P270	0.001

