



Product Change Notice

January 1st, 2013

To: Ioxus, Inc. Customers
Subject: Shipping Methods for Ioxus Product

Dear Ioxus Customer,

Effective January 1st, 2013 the IATA regulations have been revised to include a new classification for supercapacitors. This classification is under UN No. 3499, 'Capacitor, electric double layer'.

There are 3 categories under the new classification, based on the energy content of the cell. For modules, the categories are based upon the energy content of the unit cell from which the module is constructed. Current Ioxus supercapacitor product falls into the first two categories.

Category		Ioxus Product	Cells – Shipping Requirements	Modules – Shipping Requirements
1.	Cells < 0.3 Wh	RSC2R7107SR (100F Snap-In)	No Restriction	No Restriction
2.	Cells ≥ 0.3 Wh, < 10 Wh	iCAP [®] Product other than RSC2R7107SR iMOD [®] Modules THiNPAC [®] Modules	Shipped Uncharged. Protected Against Short Circuit or fitted with a metal strap connecting the terminals.	Protected against short circuit, or fitted with metal strap connecting the terminals
3.	Cells ≥ 10 Wh	None	UN3499, Class 9. Shipped Uncharged and shorting strap connected	Must be shipped with shorting strap connected
4.	Not Applicable to UN3499	Hybrid Capacitor	UN1648, Class 3	UN1648, Class 3

Hybrid Capacitor Product:

Ioxus Hybrid Capacitor product is specifically excluded from UN3499, and will continue to be shipped as Class 3 Hazardous Material according to the classification of one of the internal chemicals used (Acetonitrile-UN1648).



Product Change Notice

Additional Requirements:

All Ioxus iCAP products meet the following additional requirements, also required by the regulation:

- Designed to withstand a 95 kPA pressure differential
- Designed to safely relieve pressure build up
- Capable of withstanding a 1.2m drop test
- Marked to indicate the energy storage capacity

Installation Within Equipment:

Ioxus supercapacitors installed within equipment only need to meet the following requirements, as specified by Special Provision 361 of the UN Regulations:

- Equipment is packaged in a strong outer packaging constructed of a suitable material
- Packaging is of adequate strength and design to prevent accidental functioning of capacitors during transport
- Large robust equipment containing capacitors may be afforded equivalent protection by the equipment in which they are contained

For more information regarding the recent changes to regulation, customers should refer to the following sources:

[UN Regulations](#) (page 295 for definition, page 319 for special provision)

[IATA Dangerous Goods Regulations](#)

[USDOT](#) (CFR 49 Part 171)

Please contact sales@ioxus.com for any questions regarding this product change notice.

Regards,

A handwritten signature in blue ink that reads "Chad Hall".

Chad Hall
Vice President of Marketing and Business Development