TEST REPORT

Reliability Laboratory

Report No.：HE30038A/2018
Page： 1 of 5
Date： March 31, 2018

臺灣湯淺電池股份有限公司
新北市新莊區福營路 227 巷 11 號

以下產品由客戶提供並確認規格如下：

產品名稱：	電池
產品型號/ 編號：	REC22-12/ No.1, No.2
生產或供應商：	臺灣湯淺電池股份有限公司
原產國：	台灣
數量：	共 2 件
測試執行日期:：	Mar. 27, 2018 to Mar. 31, 2018

我們依照客戶要求，根據客戶送交之樣品進行測試，結果如下：
委託測試要求：☒ IMDG國際海事危險貨物規則2016年版(Amdt 38-16)之特殊規定238項

結論
符合 IMDG 國際海事危險貨物規則 2016 年版(Amdt 38-16)之特殊規定 238 項

Signed for and on behalf of SGS TAIWAN Ltd.

吳富貴
副理

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實驗室環境條件：

環境溫度： (20 ± 5) ℃
環境濕度： (55 ± 20) % RH

試驗設備：

名稱	廠牌	型號	序號
電磁式高頻振動試驗機	UNHOLTZ-DICKIE	SAI60-H560BAC/2/ST	474
控制器	Dactron	LASER	7110357
控制加速規	PCB	353B34	143550
電磁式高頻振動試驗機	KingDesign	KD-9363-EM-5000F2K-75N600	WR109237101
控制器	Crystal	spider	1001664
控制加速規	WR	793-6	A4632
低壓溫控櫃	YEONG SHIN	DOBL-45	YSCB940280E
可程式型恆溫恆濕試驗機	KSON	VTH-D4T-100	7696KT

試驗照片：

1. 樣品外觀 (REC22-12)

2. 樣品外觀 (REC22-12)

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試驗照片--續：

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試驗方法/ 規格：

特殊規定 238 項	
試驗方法：	1. 電池如果能夠經受下述的振動試驗和壓差試驗而沒有電池液露出，可以認為是不會洩漏的。 振動試驗：電池牢固地夾在振動機平臺上，施加振幅為0.8毫米(最大總偏移1.6毫米)的簡諧振動。頻率在10至55赫茲之間按1赫茲/分變化。對電池的每一安裝位置(振動方向)來回施加全部振動頻率範圍，所需時間是95±5分。對電池的三個互相垂直的位置(包括注入孔和排氣孔(若有的話)在倒轉位置)都進行相等時間的試驗。 壓差試驗：在振動試驗之後，把電池在 24℃±4℃下存放 6 小時，同時施加至少 88 千帕的壓差。對電池的三個互相垂直位置(包括注入孔和排氣孔(若有的話)在倒轉位置)都進行至少 6 小時的試驗 注：不會洩漏的電池如果是機械或電子設備的一個組成部分並且是開動設備所必需的，必須牢固地固定在設備的電池座上並且加以保護以防損壞和短路。 2. 不會洩漏的電池如果在溫度 55℃時電解液不會從裂開或有裂縫的外殼流出並且沒有游離液體可流出，而且在包裝供運輸時對電極做了防短路的保護，即不受本規章限制。
判定標準：	無電解液流出

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測試結果：

1. 振動試驗：

檢查項目 / 樣品型號/編號	外觀檢查（目視檢查）
REC22-12/ No.1	無電解液流出
REC22-12/ No.2	無電解液流出

2. 壓差試驗：

檢查項目 / 樣品型號/編號	外觀檢查（目視檢查）
REC22-12/ No.1	無電解液流出
REC22-12/ No.2	無電解液流出

3. 高溫試驗：

檢查項目 / 樣品型號/編號	外觀檢查（目視檢查）
REC22-12/ No.1	無電解液流出
REC22-12/ No.2	無電解液流出

測試總結：

測試項目	測試結果	註記
特殊規定 238項	符合	

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