



MOLICEL 供應商品質要求

MOLICEL Supplier Quality Requirements

Document No. | PS20002-012

RELEASED | Version_1.0

Aug. 2025





MOLICEL Supplier Quality Requirements

Doc. No.:
PS20002-012
Version: 1.0

修訂日期 (Date)	版次 (Rev.)	修 訂 原 因 及 說 明 (Revision Reason and Statement)	
		舊 版 內 容 (Old)	新 版 內 容 (New)
2025/08/18	1.0		新版發行

目錄(Content)

1. 第一章，適用範圍(CHAPTER 1 - SCOPE).....	4
2. 第二章，供應商承諾(CHAPTER 2 - SUPPLIER COMMITMENT)	4
3. 第三章，準時交貨(CHAPTER 3 - ON-TIME DELIVERY)	5
4. 第四章，產品生命週期和流程的要求(CHAPTER 4 - PRODUCT LIFE CYCLE AND PROCEDURE REQUIREMENTS)	5
5. 第五章，遵守法規要求(CHAPTER 5 - COMPLY WITH REGULATORY REQUIREMENTS) 24	
6. 第六章，主動風險管理(CHAPTER 6 - PROACTIVE RISK MANAGEMENT).....	24
7. 第七章，持續改善(CHAPTER 7 - CONTINUOUS IMPROVEMENT).....	27



1. 第一章・適用範圍(CHAPTER 1 - SCOPE)

- 1.1 本手冊的適用範圍為提供 MOLICEL (MOLICEL 包括『能元科技股份有限公司』以及『台灣三元能源科技股份有限公司』)製造電池所需物料的供應商，以下簡稱 MOLICEL。

The scope of this manual pertains to suppliers providing materials required for the manufacturing of MOLICEL batteries (MOLICEL includes 'E-One Moli Energy Corp.' and 'Molie Quantum Energy Corporation), hereinafter referred to as MOLICEL.

- 1.2 MOLICEL 的供應商應對本手冊的要求視為已知，除非供應商當地法規限制或 MOLICEL 另外與供應商有書面豁免的協議，否則應接受所有要求。

The suppliers of MOLICEL are deemed to be aware of the requirements of this manual. Unless restricted by local regulations of the suppliers or there is a written exemption agreement between MOLICEL and the suppliers, all requirements should be accepted.

- 1.3 將此手冊視同客戶特殊要求，對此手冊進行評估並確定包含在品質管理系統範圍內。相關條文可參閱 IATF16949 4.3.2 & 6.2.2.1 & 7.2.3 & 7.3.1 & 8.5.1.5

Please treat this manual as a customer-specific requirement, evaluate it, and ensure it is included within the scope of the quality management system. Relevant clauses can be referred to in IATF16949 4.3.2, 6.2.2.1, 7.2.3, 7.3.1, and 8.5.1.5.

2. 第二章・供應商承諾(Chapter 2 - SUPPLIER COMMITMENT)

- 2.1 本手冊中的品質與行為策略是我們期望供應商承諾實現零缺陷並維護社會責任的政策，供應商應可透過以下方式證明其承諾並同時要求其次級供應商(Tier 2 供應商)。

The quality and conduct strategies outlined in this manual represent our expectation for suppliers to commit to achieving zero defects and maintaining social responsibility. Suppliers should be able to demonstrate their commitment through the following methods and simultaneously require the same from their Tier 2 suppliers.

2.1.1 準時交貨 (OTIF)

On-Time In-Full (OTIF) delivery

2.1.2 在整個產品生命週期中遵守所需的產品和服務

Compliance with required products and services throughout the product lifecycle.

2.1.3 遵守法規要求

Compliance with regulatory requirements

MOLICEL Supplier Quality Requirements

- 2.1.4 主動風險管理
Proactive risk management
- 2.1.5 持續改善
Continuous improvement

3. 第三章，準時交貨(CHAPTER 3 - ON-TIME DELIVERY)

- 3.1 供應商應確保根據採購單內容準時的交付符合品質要求並滿足採購單要求數量的產品或服務，且應確保交付給 MOLICEL 的產品，其產品根據規格書定義的有效期不低於總產品有效期的 75%。

The supplier shall ensure timely delivery of products or services that meet the quality requirements and the quantity specified in the purchase order. Additionally, the supplier shall ensure that the products delivered to MOLICEL have a remaining shelf life of no less than 75% of the total product shelf life as defined in the specification.

- 3.2 供應商應有效的管理其次級供應商(Tier 2)，保持足夠的供應鏈和製造的能力，應確保適當的庫存，以滿足採購單或 MOLICEL 以任何書面形式通知的交貨日期和數量。

The supplier shall effectively manage its Tier 2 suppliers, maintain sufficient supply chain and manufacturing capabilities, and ensure adequate inventory to meet the delivery dates and quantities specified in the purchase order or as notified by MOLICEL in any written form.

- 3.3 如果出現任何可能無法準時交付符合規定品質要求的貨物時(包括但不限於供應鏈短缺或延遲、材料可用性問題、製造困難或如果出現可靠性問題等)，供應商應立即通知 MOLICEL，並提供詳細的恢復計劃並承擔因交貨延遲的責任。

If there is any possibility that the goods may not be delivered on time or may not meet the specified quality requirements (including but not limited to supply chain shortages or delays, material availability issues, manufacturing difficulties, or reliability issues), the supplier shall immediately notify MOLICEL and provide a detailed recovery plan, and shall bear the responsibility for any delays in delivery.

4. 第四章，產品生命週期和流程的要求(CHAPTER 4 - PRODUCT LIFE CYCLE AND PROCEDURE REQUIREMENTS)

供應商應確保在整個產品生命週期中交付符合要求的產品和服務，此範圍包括但不限於如產品設計的審核與放行、供應商及次級供應商(Tier 2)的管理、工程變更、檢驗、可追溯性、製程管

MOLICEL Supplier Quality Requirements

制、文件的管理以及抱怨處理等

The supplier shall ensure the delivery of products and services that meet the requirements throughout the entire product lifecycle. This scope includes, but is not limited to, product design review and release, management of suppliers and Tier 2 suppliers, engineering changes, inspections, traceability, process control, document management, and complaint handling.

4.1 產品的設計與審核

Product Design and Review

供應商提供 MOLICEL 的產品應確保有能力滿足 MOLICEL 產品和服務的要求，並鑑別了 MOLICEL 的需求以及特殊特性的符號要求，產品的設計與產品的承認應提供以下資訊交 MOLICEL 進行產品開發的承認。

Suppliers providing products to MOLICEL must ensure their capability to meet MOLICEL product and service requirements, identify MOLICEL needs, and comply with special characteristic symbol requirements. The design and approval of the product should include the following information for MOLICEL product development approval:

4.1.1 建立產品設計計畫與時間安排

Establish product design plan and schedule

4.1.2 物料清單

Bill of materials (BOM)

4.1.3 DFMEA 和設計關鍵特性(CCs)及重要特性(SCs)的識別

DFMEA and identification of design critical characteristics (CCs) and significant characteristics (SCs)

4.1.4 PFMEA 與製程關鍵特性(CCs)及重要特性(SCs)的識別

PFMEA and identification of process critical characteristics (CCs) and significant characteristics (SCs)

4.1.5 製程流程圖(應標示關鍵特性及重要特性)

Process flow chart (should indicate critical characteristics and significant characteristics)

4.1.6 測量系統分析 (MSA) · 包括 MSA 計畫

Measurement System Analysis (MSA), including the MSA plan

4.1.7 控制計畫

Control plan

4.1.8 規格書

Specifications

MOLICEL Supplier Quality Requirements

4.1.9 出廠證明或出貨報告

Certificate of compliance or shipping report

4.1.10 製程穩定性與能力

Process stability and capability

4.2 關鍵特性與重要特性

Critical Characteristics and Significant Characteristics.

供應商應建立關鍵特性及重要特性的識別方式，以及相對應的管理措施，並可參考下列 MOLICEL 建議的定義方式。

Suppliers should establish methods for identifying critical characteristics and significant characteristics, as well as corresponding management measures. They may refer to the following MOLICEL-recommended definitions.

4.2.1 關鍵特性(Critical Characteristics，簡稱 CC)：指與安全性或法規符合性直接相關的產品或製程特性。如果這些特性失效，可能導致火災、爆炸或人身傷害。

識別依據：在 FMEA 中，若失效模式的嚴重度(S) ≥ 9 ，則該特性應被識別為 CC。

Critical Characteristics (CC): Characteristics of a product or process that are directly related to safety or regulatory compliance. A failure in these characteristics could result in hazards such as fire, explosion, or personal injury.

Identification criteria: In the Failure Mode and Effects Analysis (FMEA), if the severity (S) rating of a failure mode is ≥ 9 , the characteristic shall be designated as a CC.

4.2.2 重要特性(Significant Characteristics，簡稱 SC)：指與產品功能、性能或顧客滿意度密切相關的特性，但不直接影響安全或法規。若此特性失效，可能導致產品性能下降或顧客抱怨。

識別依據：在 FMEA 中，若嚴重度(S)為 5–8 且發生率(O) ≥ 4 或高風險(H)指數項目，則可識別為 SC。可由顧客指定，也可由組織根據使用情境與品質目標識別。

Significant Characteristics (SC): Characteristics that have an impact on product function, performance, or customer satisfaction, but are not directly related to safety or regulatory compliance. A failure in these characteristics could lead to degraded performance or customer dissatisfaction.

Identification criteria: In the FMEA, if the severity (S) rating is between 5 and 8 and the occurrence (O) rating is ≥ 4 , or if it is designated as a High-Risk (H), the characteristic shall be considered a SC. SC should be specified by the customer or identified by the organization based on application conditions and

MOLICEL Supplier Quality Requirements

quality objectives.

- 4.3 特殊製程(Special Processes, 簡稱 SP) : AS9100 航太品質管理系統對特殊製程的要求, 指無法利用後續監控或量測進行最終輸出確認的製程, 應有相應的識別方式與管制措施。例如: 烘烤、焊接、X-ray 檢查等

Special Processes (SP): As defined AS9100 Aerospace Quality Management System, special processes are those whose final output cannot be fully verified through subsequent monitoring or measurement. Such processes shall be clearly identified and controlled through approved procedures.

Examples include, but are not limited to: heat treatment, welding, X-ray inspection, and baking.

- 4.4 產品設計專案計畫

Product Design Project Plan

供應商與 MOLICEL 共同開發設計的產品應建立完整的產品設計專案, 確保產品開發的每個階段都能執行審查並掌控產品開發設計的進度。

For products co-developed and designed by the supplier and MOLICEL, a comprehensive product design project plan should be established. This plan ensures that each stage of product development is reviewed and that the progress of product design and development is effectively managed.

- 4.5 失效模式與效應分析(FMEA)

Failure Modes and Effects Analysis (FMEA)

- 4.5.1 供應商應由設計開發階段起開始善用 DFMEA 的工具, 以及生產過程中的 PFMEA 並建立相關作業程序。用以控制風險使這些風險應通過引入適當的措施來減小。因此, FMEA 是預防缺陷的重要工具。FMEA 應用於產品生命週期的所有階段, 如設計、生產、組裝、包裝、運輸、客戶使用, 以及回收和廢棄物處理。FMEA 應作為持續改進的工具使用。FMEA 應該至少在下列情況發生時進行新增/修訂
- Suppliers should start utilizing the DFMEA tool from the design and development stage, as well as the PFMEA during the production process, and establish relevant operating procedures. These tools are used to control risks, which should be mitigated by introducing appropriate measures. Therefore, FMEA is an important tool for defect prevention. FMEA should be applied to all stages of the product lifecycle, such as design, production, assembly, packaging, transportation, customer use, and recycling and waste disposal. FMEA should be used as a tool for continuous improvement. FMEA should be

MOLICEL Supplier Quality Requirements

created or revised at least under the following circumstances:

- 1) 開發/生產新零件
Development/production of new parts
- 2) 引入新的製造方法
Introduction of new manufacturing methods
- 3) 工廠或生產線遷移
Factory or production line relocation
- 4) 圖紙變更
Drawing changes
- 5) 過程變更
Process changes
- 6) 如果發生瑕疵
If defects occur
- 7) 從檢驗教訓中學到
Lessons learned
- 8) 混料的風險
Risk of Material mix-up
- 9) 仿冒品的風險
Risk of counterfeit goods

4.6 供應商及次級供應商(Tier 2)的管理

Management of Suppliers and Tier 2 Suppliers

4.6.1 MOLICEL 意識到供應商對整體績效有很大的影響，因此；供應商及次級供應商應至少取得 ISO 9001 的品質管理系統認證。並致力於推動 IATF 16949 及 AS 9100 品質管理系統的認證。如果供應商的品質系統未獲得 IATF 16949 及 AS 9100 認證，適當時應由 MOLICEL 或由 MOLICEL 指定的第三方執行額外的驗證或評估活動，以確保符合設計、規格和管理系統的要求。

MOLICEL recognizes that suppliers have a significant impact on overall performance. Therefore, suppliers and their Tier 2 suppliers should at least obtain ISO 9001 quality management system certification. They should also strive to achieve certification for IATF 16949 and AS 9100 quality management systems. If a supplier's quality system is not certified to IATF 16949 or AS 9100, additional verification or assessment activities should be conducted by MOLICEL or a MOLICEL-designated third party, as appropriate, to ensure compliance with design, specifications, and management system

MOLICEL Supplier Quality Requirements

requirements.

4.6.2 供應商的考核

Supplier Evaluation

1) MOLICEL 評估新供應商納入合格供應商名冊所需的文件如下表:

The documents required by MOLICEL to evaluate and include new suppliers in the list of qualified suppliers are as follows:

項次 Item	文件名稱 Document Name	必要/非必要 Necessary/ Not necessary
1	台泥廉潔條款宣告書 Anti-Corruption Statement	必要 Necessary
2	Quality Assessment Summary	必要 Necessary
3	保密協議書 NDA(Non-Disclosure Agreement)	必要 Necessary
4	採購單條列採購協議或原物料採購合約 Agreements on Purchase Order or Raw Material Procurement Contract	必要 Necessary
5	材質證明或 SDS 安全資料表(Safety Data Sheet) Material Certification or Safety Data Sheet (SDS)	必要 Necessary
6	ISO9001 品質管理系統證書 ISO 9001 Quality Management System Certificate	必要，惟代理商、經銷商等非直接供應廠商或獨家供應商為非必要提供 Necessary, except for agents, distributors, and other non-direct suppliers or exclusive suppliers, for whom it is not necessary to provide.
7	IATF16949/ ISO14001/ ISO45001 或其他管理系統證書 IATF 16949 / ISO 14001 / ISO 45001 or other QM Certificates	非必要，但仍建議各供應商以取得 IATF16949 & AS9100 為最終目標 Not necessary, but it is recommended that all suppliers aim to achieve IATF 16949 and AS9100 certifications as their ultimate goal.
8	原產地證明(CO, Certificate of Origin)或原廠 COA	代理或經銷商首次交易為必要索取項目 Necessary for the first transaction with agents or distributors.
9	工廠登記證 Factory Registration Certificate	製造商及委外加工廠商為必要索取項目 Necessary for manufacturers and subcontractors.
10	ESG 報告書/CSR 報告書/碳足跡盤查報告書 ESG Report / CSR Report / Carbon Footprint Inventory Report	非必要 Not necessary.
11	原廠授權代理/經銷證明書 Manufacturer's Authorization for Agent/Distributor	代理商或經銷商為必要索取項目 Necessary for agents or distributors.
12	產品變更請求作業要點 Product Change Request Operation Key Points	必要 Necessary

MOLICEL Supplier Quality Requirements

項次 Item	文件名稱 Document Name	必要/非必要 Necessary/ Not necessary
13	供應商評鑑暨風險評估表 Supplier Assessment & Risk Evaluation Form	必要 Necessary
14	RoHS 保證函或第三方檢測報告 RoHS Guarantee Letter or Third-Party Test Report	必要，但如為國際大廠或廠商自訂有更嚴謹規範則不在此限，可提供相關文件替代。 Necessary, but this is not the case if it is customized by an international manufacturer or manufacturer with more stringent specifications. Relevant documents can be provided instead.
15	REACH 保證函或第三方檢測報告 REACH Guarantee Letter or Third-Party Test Report	
16	禁限用物質聲明或供應商自我宣告書 Declaration for Substances Restricted or Supplier Self-Declaration	
17	衝突和高風險地區的礦產供應鏈政策或供應商自我宣告書 Minerals Supply Chain Policy in Conflict and High Risk Areas or Supplier Self-Declaration	必要 Necessary
18	衝突礦物政策(Conflict Minerals Policy)或供應商自我宣告書 Conflict Minerals Policy or Supplier Self-Declaration	
19	衝突礦產報告模板或供應商自我宣告書 CMRT, (Conflict Minerals Reporting Template) or Supplier Self-Declaration	
20	擴展礦產報告模板或供應商自我宣告書 EMRT, (Extended Minerals Reporting Template) or Supplier Self-Declaration	

- 2) MOLICEL 新供應商的評估將根據供應商所提供的相關文件以及適用時的現場稽核結果作為評分，並將審查結果區分為 A、B、C 三種等級

The evaluation of new MOLICEL suppliers will be based on the relevant documents provided by the suppliers and, where applicable, the results of on-site audits. The review results will be categorized into three grades: A, B, and C.

- (1) A 級：總分 100~85 分，可列為合格供應商

Grade A: Total score of 100-85 points, can be listed as a qualified supplier.

- (2) B 級：總分 84~70 分，供應商應回覆缺失改善計畫，並由 MOLICEL 供應商評鑑小組複查改善情況，完成改善可列為合格供應商

Grade B: Total score of 84-70 points, the supplier should respond with a corrective action plan for deficiencies, and the MOLICEL supplier evaluation team will re-evaluate the improvements. Upon

MOLICEL Supplier Quality Requirements

successful improvement, the supplier can be listed as a qualified supplier.

- (3) C 級：總分 69 分以下，判定為不合格供應商

Grade C: Total score below 69 points, determined as an unqualified supplier.

- 3) MOLICEL 將會對供應商執行年度與季度的定期績效考核，並將供應商區分為 A、B、C 三種等級：

MOLICEL will conduct annual and quarterly regular performance assessments of suppliers and categorize them into three grades: A, B, and C.

- (1) A 級：總分 ≥ 85 分以上，採購列為優先採購之供應商

Grade A: Total score of 85 points or above, prioritized as a preferred supplier for procurement.

- (2) B 級：總分 70~84 分，合格供應商，可維持正常交易

Grade B: Total score of 70-84 points, qualified supplier, can maintain normal transactions.

- (3) C 級：總分 69 分以下，通知供應商進行改善，供應商需針對缺失項目提出改善方案。且 C 級供應商會被認為具有風險或潛在風險的供應商，MOLICEL 可能會進行額外的監控或考核。

Grade C: Total score below 69 points, the supplier will be notified to make improvements and must propose a corrective action plan for the deficiencies. Grade C suppliers will be considered as having risks or potential risks, and MOLICEL may conduct additional monitoring or assessments.

4.6.3 供應商審查

Supplier Review

- 1) 供應商必須允許 MOLICEL 及其客戶、監管機構對供應商及次級供應商的設施和適用的文件化資訊（例如文件、記錄、資料）進行查核或至現場稽核，確保符合產品品質及法規要求獲得滿足。

Suppliers must allow MOLICEL and its customers, regulatory agencies to audit or conduct on-site inspections of the supplier's and sub-supplier's facilities and applicable documented information (e.g., documents, records, data) to ensure compliance with product quality and regulatory requirements.

- 2) MOLICEL 應將稽核結果告知供應商，供應商應對於發現的缺失，進行原因調

MOLICEL Supplier Quality Requirements

查並擬定改善行動計劃後回覆給 MOLICEL，改善計畫所需費用由供應商自行承擔。

MOLICEL will inform the supplier of the audit results. The supplier should investigate the causes of any deficiencies found and formulate corrective action plans, which should be reported back to MOLICEL. The costs of the corrective actions will be borne by the supplier.

3) MOLICEL 對供應商產品重新認可的要求

MOLICEL requirements for re-approval of supplier products:

- (1) 供應商交付給 MOLICEL 的產品可能會不定期接受重新認可檢驗以檢查所有尺寸(全尺寸量測)、功能性特徵和材料是否符合要求。

Products delivered to MOLICEL by the supplier may be subject to periodic re-approval inspections to check if all dimensions (full dimensional measurement), functional characteristics, and materials meet the requirements.

- (2) 在生產過程中，供應商承諾通過運用統計過程控制(SPC)確保製程能力，供應商必須應 MOLICEL 要求向其提供 SPC 的統計數據。

During the production process, the supplier commits to ensuring process capability through the use of Statistical Process Control (SPC). The supplier must provide SPC statistical data to MOLICEL upon request.

- 4) 供應商應對其次級供應商(Tier 2) 進行管理並審查/考核，確保次級供應商的管理系統及交貨品質符合要求，進而滿足 MOLICEL 對產品品質的要求。對供應商的審查與考核參考如下：

Suppliers should manage and review/evaluate their sub-suppliers (Tier 2) to ensure that the management systems and delivery quality of sub-suppliers meet the requirements, thereby satisfying MOLICEL product quality requirements. The review and evaluation of suppliers may refer to the following:

- (1) 產品合格率

Product qualification rate

- (2) 物料達交率 (OTD)

On-time delivery rate (OTD)

- (3) 矯正及改善反應速度

Speed of corrective and improvement responses

MOLICEL Supplier Quality Requirements

(4) 對客戶所造成的困擾

Customer inconvenience caused

(5) 專業及技術支援能力

Professional and technical support capabilities

4.6.4 供應商矯正措施

Supplier Corrective Actions

- 1) 如果發生過程中斷、品質異常等偏差情形發生時，MOLICEL 會要求供應商應分析原因，提出 8D 改善及預防報告並交 MOLICEL 審核，若 8D 改善及預防報告無法有效消除風險或偏差情形，供應商應重新展開調查並重新提出 8D 改善及預防報告。

In the event of process interruptions, quality anomalies, or other deviations, MOLICEL will require the supplier to analyze the causes and submit an 8D corrective and preventive report for MOLICEL review. If the 8D corrective and preventive report fails to effectively eliminate the risks or deviations, the supplier should re-investigate and re-submit the 8D corrective and preventive report.

- 2) 8D 改善及預防報告回覆時效管制如下表，若供應商無法於期限內完成回覆應主動通知 MOLICEL，說明延遲回覆原因及預計可以完成回覆的時間。

The response time control for the 8D corrective and preventive report is as follows. If the supplier cannot complete the response within the deadline, they should proactively notify MOLICEL, explaining the reasons for the delay and the expected completion time for the response.

回覆階段 Reply Stage	涉及材料/半成品/成品 Involving materials/semi-finished products/finished products	未涉及材料/半成品/成品 Not involved in materials/semi-finished products/finished products
D1~D3	48 小時(48 hours)	NA
D4~D5	5 工作天(5 working days)	10 工作天(10 working days)
D6~D7	10 工作天(10 working days)	15 工作天(15 working days)
D8	3 工作天(3 working days)	3 工作天(3 working days)
備註 Remark	由各回覆階段的次日起計算回覆時效 The response time limit is calculated from the next day of each response stage.	

- 3) 供應商 8D 改善及預防報告應以 MOLICEL 所提供之格式進行填寫回覆，若無法採用 MOLICEL 格式進行回覆時，仍需以 8D CAR 的結構進行調查及回覆。

The supplier 8D corrective and preventive action report should be

MOLICEL Supplier Quality Requirements

completed and submitted using the format provided by MOLICEL. If it is not possible to use the MOLICEL format, the investigation and response must still follow the 8D CAR structure.

- 4.6.5 供應商應對其次級供應商所交付的產品進行品質管制，並審核其工程變更的要求，影響 MOLICEL 產品的任何變更皆應該向 MOLICEL 提出申請。

Suppliers should implement quality control over the products delivered by their sub-suppliers and review their engineering change requests. Any changes affecting MOLICEL products must be submitted to MOLICEL for approval.

- 4.6.6 供應商未經 MOLICEL 的核准，不可將提供給 MOLICEL 的產品或服務全部或部分委外執行。

Suppliers are not allowed to outsource all or part of the products or services provided to MOLICEL without MOLICEL approval.

- 4.6.7 供應商應優先直接向原製造商採購原物料，如果必須從經銷商、代理商或貿易商採購原料，則必須確保經銷商、代理商或貿易商擁有原廠的授權或經銷商認證。

Suppliers should prioritize purchasing raw materials directly from the original manufacturers. If it is necessary to procure raw materials from distributors, agents, or traders, they must ensure that these distributors, agents, or traders have authorization or certification from the original manufacturer.

4.7 變更

Changes

- 4.7.1 對產品產生影響的變更，包括製程方法、配方、製程設備、更換生產地點等的變更，應在執行變更 90 天前向 MOLICEL 提出申請。

Changes that affect the product, including process methods, formulations, process equipment, and changes in production locations, must be submitted to MOLICEL for approval at least 90 days before implementation.

- 4.7.2 供應商提供的產品及服務變更，未經變更申請核准將被視同不合格品且須承擔相關的損失責任。

Changes to the products and services provided by the supplier, without an approved change request, will be considered non-conforming and the supplier will be responsible for any related losses.

- 4.7.3 供應商變更的申請應至少包括以下資訊並提供變更後的樣品

The supplier's change request should include at least the following information and provide samples of the changed product.

- 1) 受影響的產品

Products affected

MOLICEL Supplier Quality Requirements

- 2) 依據要求提供相關佐證/測試資料

Provide relevant supporting evidence/test information as required

- 3) 變更原因

Reason for the change

- 4) 請求的變更開始日期和實施時程表

Requested start date and implementation schedule for the change

- 5) 風險的識別和建議的緩解措施

Identification of risk(s) and proposed mitigation(s)

- 4.7.4 供應商的變更若涉及需向 MOLICEL 的客戶申請核准，則執行變更前也需 MOLICEL 的客戶核准後，才可以進行變更。

If the supplier's change involves approval from MOLICEL customers, the change can only be implemented after obtaining approval from MOLICEL customers before executing the change.

4.8 產品 EOL(End-of-life)

Product EOL(End-of-life)

供應商應針對可能發生的 EOL(End-of-life)制定相關管理程序，並主動提前於 EOL 發生前 180 天通知 MOLICEL，相關的管理程序至少應包括下列：

Suppliers should establish relevant management procedures for potential EOL (End-of-life) situations and proactively notify MOLICEL 180 days in advance before the EOL occurs. The relevant management procedures should at least include the following:

- 4.8.1 供應商應對物料清單 (BOM) 定期或不定期進行評估，以識別可能影響產品生產或交付的任何實際或潛在的 EOL 情況

The supplier shall evaluate the Bill of Materials (BOM) periodically or irregularly to identify any actual or potential End of Life (EOL) situations that may affect product production or delivery.

- 4.8.2 主動辨識並偵測零件、材料或製造或測試設備 EOL 問題。解決 EOL 問題的行動計劃，包括預測分析和產品支援決策（重新設計或產品淘汰）

Proactively identify and detect EOL issues with parts, materials, or manufacturing or testing equipment. Develop action plans to address EOL issues, including predictive analysis and product support decisions (redesign or product phase-out).

- 4.8.3 庫存管理計劃，以確保長期生產產品的能力

Inventory management plan to ensure the capability for long-term product

MOLICEL Supplier Quality Requirements

production.

- 4.8.4 若因 EOL 問題而導致滿足預測需求的能力出現任何潛在中斷，建立提前通知客戶的措施

Establish measures to notify customers in advance if any potential disruptions in meeting forecasted demand arise due to EOL issues.

4.9 檢查

Inspection

4.9.1 合規性檢查

Compliance Inspection

供應商必須保持適用於所提供產品或服務的檢驗系統。在每次裝運之前，必須檢查所有產品是否符合品質要求標準。它們應該在品質上是一致的，並且必須沒有缺陷以及加工或處理過程中可能影響裝配、形狀、功能、可靠性或可維護性的所有異物或殘留物。檢驗的結果應隨每批貨物提供給 MOLICEL。

Suppliers must maintain an inspection system applicable to the products or services provided. Before each shipment, all products must be inspected to ensure they meet quality requirements. They should be consistent in quality and free from defects and any foreign substances or residues that may affect assembly, shape, function, reliability, or maintainability during processing or handling. The inspection results should be provided to MOLICEL with each batch of goods.

- 1) 供應商必須確保執行檢驗的人員受過適當的訓練，確保檢驗人員具備檢驗的能力與資格。

Suppliers must ensure that personnel performing inspections are properly trained and qualified to conduct inspections.

- 2) 供應商負責對交付給 MOLICEL 的所有物品應進行 100% 的品質檢驗，若無法執行 100% 的檢驗，採用統計的方法進行抽樣時，應基於風險考量來建立適當的抽樣計畫。並應監控其製程能力 $CPK \geq 1.67$ 。

Suppliers are responsible for conducting 100% quality inspection of all items delivered to MOLICEL. If 100% inspection is not feasible, statistical sampling methods should be used based on risk considerations to establish an appropriate sampling plan. The process capability should be monitored with a $CPK \geq 1.67$.

4.9.2 源頭檢查

Source Inspection

MOLICEL Supplier Quality Requirements

產品或服務依照需求可能需要接受 MOLICEL、MOLICEL 的客戶或適用政府機構執行來源檢驗或測試見證。當物品或材料準備好進行檢查或測試時，應及時通知 MOLICEL。

Products or services may require source inspection or test witnessing by MOLICEL, MOLICEL customers, or applicable government agencies as needed. When items or materials are ready for inspection or testing, MOLICEL should be notified promptly.

4.9.3 校驗與分析

Calibration and Analysis

- 1) 儀器校驗必須可追溯至 ANSI/NCSL Z540-1、ISO/IEC 17025 或同等標準的校驗系統。必須保存並提供記錄以顯示監控和測量設備校準的證據。供應商必須擁有當發生異常時可用於校驗的召回程序。當校準和測試活動外包時，供應商必須能夠證明次級供應商也可追溯至上述要求。供應商應於 MOLICEL 提出要求時配合進行量測一致性的能力比對。

Instrument calibration must be traceable to ANSI/NCSL Z540-1, ISO/IEC 17025, or equivalent standards. Records must be maintained and provided to show evidence of monitoring and measuring equipment calibration. Suppliers must have a recall procedure available for calibration in case of anomalies. When calibration and testing activities are outsourced, suppliers must demonstrate that secondary suppliers are also traceable to the above requirements. Suppliers should cooperate with MOLICEL for measurement consistency capability comparison upon request.

- 2) 量測系統分析(MSA)

Measurement System Analysis (MSA)

供應商應制定適當的量測系統分析流程，此量測分析方法包括但不限於如 Gauge R&R、KAPPA、ANOVA 等方法，以確保量測品質。

Suppliers should establish appropriate measurement system analysis processes. These measurement analysis methods include but are not limited to Gauge R&R, KAPPA, ANOVA, etc., to ensure measurement quality.

4.10 製程管制

Process Control

MOLICEL Supplier Quality Requirements

4.10.1 管制計劃 (IATF 16949: 8.5.1.1)

Control Plan (IATF 16949: 8.5.1.1)

供應商應針對交付 MOLICEL 的產品制訂管制計畫，管制計劃提供了預防性過程安全的計劃工具。透過對生產、組裝和測試過程的系統分析，由一個團隊實施。這個團隊應由規劃、製造和品質保證部門的員工以及其他相關部門的員工組成。

Suppliers shall develop a control plan for products delivered to MOLICEL. The control plan presents a planning tool for preventive process security. It is implemented by a team through systematic analysis of production, assembly, and test processes. This team should be made up of employees from Planning, Manufacturing, and Quality Assurance as well as other related departments.

4.10.2 預防異物

Foreign Object Debris (FOD) Prevention

- 1) 供應商必須制定預防、檢測和清除異物的程序。供應商應確保在裝運前消除所有產品中的異物碎屑。供應商的管制計劃必須確保在加工、製造、裝配、維護、檢驗、儲存、包裝和運輸過程中的所有環節都提供避免異物的環境。

Suppliers must establish procedures for the prevention, detection, and removal of foreign objects. Suppliers should ensure that all foreign object debris is eliminated from products before shipment. The supplier's control plan must ensure that an environment free from foreign objects is maintained throughout all stages of processing, manufacturing, assembly, maintenance, inspection, storage, packaging, and transportation.

- 2) 供應商於更換生產線時應落實生產線的清理，避免上一批的原物料、成品或半成品留在生產線上，以避免交叉污染。

When suppliers change production lines, they should ensure the thorough cleaning of the production line to prevent any raw materials, finished products, or semi-finished products from the previous batch from remaining on the production line, thereby avoiding cross-contamination.

4.10.3 不合格品的管理

Management of Non-conforming Products

- 1) 通知 (NOE)

Notification (NOE)

當供應商發現或發現可疑產品/服務從供應商設施中流出時，供應商必須在 24 小時內通知 MOLICEL。初始通知可以是口頭通知，但必須在五天之內以書面形式跟進，並以供應商自己的信箋寄給 MOLICEL。該通知必須至少包含

MOLICEL Supplier Quality Requirements

以下資訊：

When Supplier identifies or becomes aware of a suspect product/service that has escaped from the Supplier's facility, Supplier must notify MOLICEL within 24 hours. The initial notification may be a verbal notification but must be followed up in writing within (5) five days, addressed to MOLICEL, on the Supplier's own letterhead. The notification must, at a minimum, contain the following information:

- (1) 供應商名稱
Supplier Name
- (2) 缺陷的說明
Description of the defect
- (3) 受影響的料號
Affected part number(s)
- (4) 採購單號
P.O. number(s)
- (5) 交付數量和日期
Quantities and Dates delivered
- (6) 生產日期
Date of Manufacture
- (7) 可追溯性資訊 (序號、加熱批號、批次號等)
Traceability information (serial number, heat lot number, batch number, etc.
- (8) 測試/檢驗資料的附件
Attachment of test/inspection data.
- (9) 真因及矯正措施或提交的完成日期
Root cause and corrective action or completion date for submittal.

4.11 追溯性

Traceability

4.11.1 供應商必須確保從產品運送到 MOLICEL 的整個製造過程都必須保持可追溯性，如原材料、原材料製造商、生產過程、批次資訊、檢驗資訊等。

Suppliers must ensure traceability throughout the entire manufacturing process from product shipment to MOLICEL, including raw materials, raw material manufacturers, production processes, batch information, inspection information, etc.

MOLICEL Supplier Quality Requirements

- 4.11.2 供應商必須提供所交付貨品的批次資訊、製造日期、有效日期以及特殊的儲存要求或其它須標示的注意事項識別標示於產品或產品的包裝上。

Suppliers must provide batch information, manufacturing date, expiration date, and any special storage requirements or other necessary identification markings on the product or its packaging for the delivered goods.

- 4.11.3 文件保存

Document Retention

供應商必須保留記錄作為證據，證明供應商的方法、系統和流程是根據其品質管理體系執行的。記錄必須在供應商的設施中存檔，並可追溯到交付給 MOLICEL 的產品或服務的一致性。必須保護記錄免受丟失、損壞或變質，並且必須保持清晰易讀且易於訪問。電子記錄（數據）必須通過備份程式安全存儲。除非合同、協定或採購單另有規定，否則供應商品質相關保存的紀錄應不少於 16 年。供應商必須將這些記錄控制要求傳達給其供應商和次級供應商，期限相同。

The supplier must retain records as evidence that the supplier's methods, systems, and processes are executed according to its quality management system. These records must be archived at the supplier's facility and must be traceable to the consistency of the products or services delivered to MOLICEL. Records must be protected from loss, damage, or deterioration, and must be kept clear, legible, and easily accessible. Electronic records (data) must be securely stored through backup procedures. Unless otherwise specified in the contract, agreement, or purchase order, the supplier's quality-related records must be retained for no less than 16 years. The supplier must communicate these record control requirements to its suppliers and sub-suppliers, with the same retention period.

- 4.11.4 紀錄更正要求

Record Correction Requirements

更新或更正現有記錄時，請勿使用修正液、覆蓋或塗抹的方法。反之，請以可追溯到先前版本的方式劃掉現有資訊。在劃掉的資訊旁邊記錄更新的更正、日期和簽名。對於已寄送給 MOLICEL 的記錄，任何更新或更正都必須立即通知 MOLICEL。

When updating or correcting existing records, do not use correction fluid, covering, or smearing methods. Instead, cross out the existing information in a way that allows tracing back to the previous version. Record the updated correction, date, and signature next to the crossed-out information. For records already sent to MOLICEL, any updates or corrections must be

MOLICEL Supplier Quality Requirements

immediately communicated to MOLICEL.

4.12 產品防護與包裝

- 4.12.1 供應商必須確保所提供的產品在生產、檢驗、包裝、包裝和運輸作業過程中避免受損壞。收貨時發現損壞的產品必須被視同不合格品。

Suppliers must ensure that the products provided are protected from damage during production, inspection, packaging, and transportation processes.

Products found to be damaged upon receipt must be considered non-conforming.

- 4.12.2 所有產品在製造、運輸和儲存過程中都必須受到保護，以防止損壞，包括但不限於潮濕敏感元件、腐蝕防護、特殊清潔或爆炸或腐蝕性材料所需的任何特殊包裝。

All products must be protected during manufacturing, transportation, and storage to prevent damage. This includes, but is not limited to, moisture-sensitive components, corrosion protection, special cleaning, or any special packaging required for explosive or corrosive materials.

4.13 先進先出原則

供應商原物料、成品、半成品的使用，應採用先進先出(FIFO)或先到期先出(FEFO)為原則進行管理。

The use of raw materials, finished products, and semi-finished products by suppliers should be managed based on the principles of First-In-First-Out (FIFO) or First-Expired-First-Out (FEFO).

4.14 抱怨處理與溝通

Complaint Handling and Communication

- 4.14.1 供應商應建立明確與 MOLICEL 溝通的管道，在一旦發現產品有品質風險時，無論是否已經發生或可能發生的品質異常或交貨延遲時，應立即通知 MOLICEL，並與 MOLICEL 討論處置對策。

Suppliers should establish clear communication channels with MOLICEL. If any quality risks are identified, whether they have already occurred or are potential quality anomalies or delivery delays, the supplier should immediately notify MOLICEL and discuss countermeasures with MOLICEL.

- 4.14.2 供應商應建立 NTF(未發現問題)的管制流程，NTF 的流程包括但不限於以下資訊：
The supplier should establish a control procedure for NTF (No Trouble Found). The NTF procedure should include, but is not limited to, the following information:

MOLICEL Supplier Quality Requirements

1) 問題描述 Impact factor survey

詳細記錄客戶提供的問題描述，包括發生問題的情況、時間、地點、頻率等，用以進一步確認問題是否可以重現。

Record in detail the customer's provided problem description, including the circumstances, time, location, frequency, etc., to further confirm if the problem can be reproduced.

2) 歷史紀錄分析 Historical record analysis

調閱產品歷史異常紀錄，查找是否有類似問題或重複性的問題，並在適用時，對相關資訊進行統計分析。

Review the product's historical anomaly records to identify similar or recurring issues and, where applicable, perform statistical analysis on the relevant information.

3) 影響因子調查 Impact factor survey

詳細檢查原物料品質狀況、製程參數是否符合要求以及其它可能原因的調查；如溫度、濕度、震動(道路條件)、撞擊等可能造成的差異。

Conducting a detailed examination of the quality status of raw materials, process parameters to ensure they meet requirements, and investigating other possible causes. These include factors such as temperature, humidity, vibration (road conditions), impact, and other potential differences.

4) 尋求內外部專家共同調查 Seeking expert support

尋求內部或外部的相關技術專家共同研究查找可能原因。

Seek assistance from internal or external technical experts to collaboratively investigate and identify potential causes.

5) 品質分析工具 Quality analysis tools

若多次出現類似的 NTF 問題，應針對相關問題點收集詳細資訊進行數據分析，利用 5Why 或魚骨圖等品質分析工具進行調查。

If similar NTF issues occur multiple times, collect detailed information on the related issues for data analysis, and use quality analysis tools such as the 5 Whys or fishbone diagram for investigation.

6) 建立 NTF 報告

對所有檢查過程和發現進行詳細記錄，即使沒有找到問題，也要描述所有已經排除的可能性並且應向 MOLICEL 提供詳細的報告，解釋已經進行的檢查和結果。

Document all inspection processes and findings in detail. Even if no issues

MOLICEL Supplier Quality Requirements

are found, describe all eliminated possibilities and provide the MOLICEL with a detailed report explaining the inspections conducted and their results.

5. 第五章・遵守法規要求(CHAPTER 5 - Comply with regulatory requirements)

- 5.1 供應商及次級供應商應遵守所有適用的法律法規以及適用的監管機構要求，以確保產品的合法性和合規性。

Suppliers and sub-suppliers must comply with all applicable laws, regulations, and regulatory requirements to ensure the legality and compliance of the products.

- 5.2 供應商應確保其產品和系統已經按照適當的產品一致性標準進行認證，包括但不限於 UL、CE、FCC、IEC、CCC 和工程圖紙/技術要求等規範。

Suppliers must ensure that their products and systems are certified according to appropriate product conformity standards, including but not limited to UL, CE, FCC, IEC, CCC, and engineering drawings/technical requirements.

- 5.3 供應商應支持並配合 MOLICEL 對於符合(EU)2023_1542 歐盟電池法的要求，包含電池有害物質的要求、衝突礦產、社會和環境、人權、勞工權利和勞資關係等的盡職調查。

Suppliers should support and cooperate with MOLICEL in meeting the requirements of the EU Battery Regulation (EU) 2023_1542, including requirements for hazardous substances in batteries, conflict minerals, social and environmental due diligence, human rights, labor rights, and labor relations.

- 5.4 供應商交貨的產品應符合 RoHS、REACH 的要求、符合歐盟包材與包材廢棄物指令(Pb, Cd, Hg, Cr6+其濃度總合不可超過 100 ppm)，不使用含有 PFAS 全氟烷基物質並提供有關產品含有加州 65 清單所列物質的調查。

Products delivered by suppliers must comply with RoHS and REACH requirements, the EU Packaging and Packaging Waste Directive (Pb, Cd, Hg, Cr6+ total concentration not exceeding 100 ppm), and must not contain PFAS substances. Suppliers should also provide investigations regarding the presence of substances listed in California Proposition 65 in their products.

6. 第六章・主動風險管理(CHAPTER 6 - PROACTIVE RISK MANAGEMENT)

供應商應主動識別風險並加以預防，降低風險的影響；這些風險包括但不限於如下：

Suppliers should proactively identify risks and take preventive measures to mitigate their

MOLICEL Supplier Quality Requirements

impact; these risks include, but are not limited to, the following:

6.1 防偽風險

Anti-Counterfeit Risk

供應商必須制定計劃，防止引入假零件（包括電子和非電子零件和材料）的風險。防偽計劃必須包括：識別、緩解、檢測和避免的技術，以及向 MOLICEL 報告可疑或已確認的仿冒零件、組件和/或材料。供應商的預防仿冒計畫包括如下：

Suppliers must establish plans to prevent the risk of introducing counterfeit parts (including electronic and non-electronic parts and materials). The anti-counterfeit plan must include techniques for identification, mitigation, detection, and avoidance, as well as reporting suspicious or confirmed counterfeit parts, components, and/or materials to MOLICEL. The supplier's anti-counterfeit plan includes the following:

6.1.1 應用零件報廢監控程序

Application of parts scrapping monitoring procedures.

6.1.2 控制從原始或授權製造商、授權經銷商或其他核准來源取得外部提供的產品；

Control of externally provided products obtained from original or authorized manufacturers, authorized distributors, or other approved sources.

6.1.3 確保零件可追溯至其原始或授權製造商的要求；

Requirements to ensure parts are traceable to their original or authorized manufacturers.

6.1.4 驗證和測試方法以及檢測假零件的測試方法；

Verification and testing methods, as well as methods for detecting counterfeit parts.

6.1.5 監控外部來源報告的仿冒零件；

Monitoring reports of counterfeit parts from external sources.

6.1.6 假冒或可疑案件的通報流程；

Reporting procedures for counterfeit or suspicious cases.

6.1.7 物資持續可用性的風險。

當評估物資持續可用性風險時，應採取必要措施，確保符合要求的物資持續可用，包括例如：

Risk of Continuous Availability of Materials

When assessing the risk of continuous availability of materials, necessary measures should be taken to ensure the continuous availability of required materials, including but not limited to:

MOLICEL Supplier Quality Requirements

- 1) 終身購買
Lifetime purchase
- 2) 系統重新設計
System redesign
- 3) 替代/多個來源
Alternative/multiple sources
- 4) 替代品
Substitutes
- 5) 規劃充足的採購前置時間
Planning adequate procurement lead time

6.2 內部風險**Internal Risks****6.2.1 營運風險:****Operational Risks:**

如造成生產中斷之設備故障、供應鏈中斷、供水、供電、供氣中斷、化學品洩漏、工傷意外、產品品質瑕疵風險等

Such as equipment failures causing production interruptions, supply chain disruptions, interruptions in water, electricity, or gas supply, chemical leaks, workplace accidents, product quality defects, etc.

6.2.2 人力資源風險:**Human Resources Risks:**

如勞動力短缺、員工士氣低落、罷工、傳染病、食物中毒等

Such as labor shortages, low employee morale, strikes, infectious diseases, food poisoning, etc.

6.2.3 技術風險:**Technical Risks:**

如網路安全風險、系統故障風險等

Such as cybersecurity risks, system failure risks, etc.

6.3 外部風險**External Risks****6.3.1 市場風險:****Market Risks:**

價格風險、市場需求風險等

MOLICEL Supplier Quality Requirements

Such as price risks, market demand risks, etc.

6.3.2 法律風險:

Legal Risks:

新法規頒布、現有法規修訂、法律糾紛等

Such as the enactment of new regulations, amendments to existing regulations, legal disputes, etc.

6.3.3 自然災害風險:

Natural Disaster Risks:

氣候變遷風險、地震、颱風、洪水等風險

6.3.4 社會風險:

Social Risks:

老齡化、人口增長放緩、企業社會責任事件、消費者信任危機等風險

Such as aging population, slowing population growth, corporate social responsibility incidents, consumer trust crises, etc.

6.4 應急計畫

Contingency Plan

供應商應評估與維護生產產出並確保滿足 MOLICEL 的供貨要求，應積極評估製造過程和基礎設施、設備的內部和外部風險。供應商應為可能的風險制定應急計畫。供應商應定期檢討並更新每個應急計畫，至少每年一次。應急計畫應包括對恢復措施的全面測試。

Suppliers should assess and maintain production output to ensure meeting MOLICEL supply requirements. They should proactively assess internal and external risks to manufacturing processes, infrastructure, and equipment. Suppliers should develop contingency plans for potential risks. Each contingency plan should be reviewed and updated regularly, at least once a year. Contingency plans should include comprehensive testing of recovery measures.

7. 第七章，持續改善(CHAPTER 7 - CONTINUOUS IMPROVEMENT)

- 7.1 供應商承諾遵守持續改善過程，並將所有相關企業納入該持續改善過程中，將各項管理系統的適用性、適切性及有效性的過程，來提高營運品質、提升運作效率、降低成本、減少浪費，使公司的產品和服務能持續符合顧客要求和適用的法律法規要求，並持續獲得顧客滿意，增加公司競爭力。相關品質訊息必須可目視化，並納入管理控制範圍。

Suppliers commit to adhering to a continuous improvement process and incorporating all relevant enterprises into this process. They should enhance operational quality,

MOLICEL Supplier Quality Requirements

improve operational efficiency, reduce costs, and minimize waste by ensuring the applicability, appropriateness, and effectiveness of various management systems. This ensures that the company's products and services continuously meet customer requirements and applicable legal and regulatory requirements, achieve customer satisfaction, and increase the company's competitiveness. Relevant quality information must be visualized and included within the scope of management control.

- 7.2 供應商應透過報告、建立作業程序，以及使用統計工具來量化改善績效，以證明已實施持續改善。

Suppliers should demonstrate the implementation of continuous improvement through reports, the establishment of operating procedures, and the use of statistical tools to quantify improvement performance.

- 7.3 供應商應對於組織內各功能建立績效指標，持續監控績效指標達成的情況，並在發生未達到目標的情況時進行改善，這些績效指標應特別關注於有關產品品質與客戶滿意度的績效。

Suppliers should establish performance indicators for various functions within the organization, continuously monitor the achievement of these indicators, and make improvements when targets are not met. These performance indicators should particularly focus on product quality and customer satisfaction performance.

MOLICEL 鼓勵內部及外部人員檢舉貪腐、賄賂、不誠信行為或不當行為，並承諾任何人以善意告知有關 MOLICEL 及利害關係人顯有違背 MOLICEL 政策或相關法規時，不會遭受任何形式的報復或威脅且該檢舉之相關內容均處於保持機密之狀態。

你可以在 MOLICEL 的網站中找到聯絡我們的方法。

MOLICEL encourages both internal and external personnel to report corruption, bribery, dishonest behavior, or misconduct. MOLICEL commits that anyone who, in good faith, reports apparent violations of MOLICEL policies or relevant regulations by MOLICEL or its stakeholders will not face any form of retaliation or threat, and the content of such reports will be kept confidential.

You can find ways to contact us on the MOLICEL website.

<https://www.molicel.com/>