

ECOLAB[®]

SUPPLIER

MANUAL

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Our Company

Who We Are - Ecolab is the global leader in water, hygiene and energy technologies and services. Around the world, businesses in the foodservice, food processing, hospitality, healthcare, industrial and oil and gas markets choose Ecolab products and services to keep their environments clean and safe, operate efficiently and achieve sustainability goals.

For over 90 years we've worked behind the scenes to keep food safe, prevent the spread of infection and protect vital resources. And today we're doing more than ever before.

What We Do - Because we work in close partnership with our customers, we have extraordinary insight into the challenges they face. With on-site presence and the latest technology, we can capture and analyze data from multiple systems, see how processes interact and impact each other, and use this in-depth understanding to solve problems and find opportunities. We work together to develop clean, safe and sustainable practices. And we help our customers do more with less through a tailored and personal approach. Because when our customers succeed, we succeed.

Why It Matters - As a trusted partner for businesses in more than 1 million locations, we provide consistent, world-class service around the globe. We meet the challenges of an evolving world with expertise and innovation. We touch what is fundamental to quality of life.

Our Vision

Clean Water – Water is the world's most valuable resource, and growing demand for clean water is putting enormous pressure on the available supply. Water is integral to many of our customers' key processes – such as cleaning and sanitizing, food processing, boiler and cooler water treatment, oil and gas extraction and processing, and pulp and paper processing. With a broad suite of technologies and expertise, we help our customers manage water through conservation, recycling and reuse.

Safe Food – Foodborne illness is a growing public health problem – and we are committed to solving it. From preventing cross-contamination at animal production and food processing facilities to providing hand hygiene programs for restaurant employees, we help our customers provide consumers with safe food – and the confidence to eat and drink anything, anywhere.

Abundant Energy – Around the world, the demand for energy is growing – and meeting the demand is becoming more difficult. With innovative programs and technologies, we help energy companies extract more energy with fewer resources. And we help all of our customers use less energy – and reduce their environmental footprints – by identifying and treating process-related problems and providing them with products that minimize energy use.

Healthy Environments – The spread of disease can be devastating to people – and to businesses. That's why we provide healthcare facilities with comprehensive solutions that help reduce healthcare-acquired infections and improve patient safety. With programs and products that meet or exceed healthcare standards, we also help prevent the spread of infection in many other settings, such as schools, restaurants, hotels, retail stores and more

Introduction

Scope and Purpose

The purpose of this manual is to communicate the minimum expectations and requirements for all new and existing suppliers of raw materials, finished goods or services to Ecolab, Inc or its subsidiaries or its affiliates – hereafter referred to as Ecolab. Suppliers are critical to Ecolab’s success in delivering superior quality products and services to our customers. Preference will be given to suppliers who consistently exceed the expectations defined in this manual.

This manual establishes general policies and requirements. If there are questions or concerns regarding the content of this manual please direct them to supplierquality@ecolab.com.

In some cases certain business units may at their discretion add additional requirements based upon their market needs. Suppliers are expected to comply with these additional requirements and the requirements in this manual.

In this manual, the terms “shall” and “must” mean that the requirement or expectation is mandatory. The term “should” means that the requirement is expected with some flexibility in how it can be implemented.

Responsibilities

1. All suppliers are responsible for understanding and adhering to the requirements in this document: including product specifications and drawings, work instructions, Purchase Orders, Supply Agreements or any other requirement communicated to the supplier by Ecolab. If the supplier does not understand any requirement, they are responsible for contacting Ecolab to obtain an understanding of the requirements.
2. Supplier are responsible for ensuring that the products and/or services provided to Ecolab meet established requirements and assume full responsibility for the quality of these products or services. Ecolab reserves the right to reject product or services which do not meet above stated requirements.
3. Suppliers are responsible for ensuring that their sub-suppliers who perform work on behalf of the supplier for products provided to Ecolab meet the requirements in this manual and all other requirements specified by Ecolab. The supplier is responsible for ensuring that all sub-suppliers understand the requirements set forth in this document.

General Expectations and Requirements

1. The supplier must ensure that all products/services provided to Ecolab meet applicable specifications and quality requirements.
2. The supplier must ensure that all deliveries are delivered in the timeframe requested.

3. The supplier must develop and maintain a quality management system to manage their business.
4. The supplier is responsible for reimbursing Ecolab for costs associated with the correction of a supplier defect.
5. The supplier should continually improve quality and manufacturing processes and communicate that improvement to Ecolab.
6. The supplier must comply with all applicable governmental laws and regulations.
7. The supplier shall abide by the Ecolab Ethical Sourcing Standards as defined at www.ecolab.com
8. The supplier shall abide by the Ecolab Conflict Minerals policy as defined at www.ecolab.com
9. The supplier agrees that by accepting an Ecolab Purchase Order (P.O.) they acknowledge that they have read, understand and will comply with this document.
10. The supplier supports innovative solutions in their category and shares them with Ecolab.
11. The supplier should have a disaster recovery plan that incorporates part specific contingency plans for ensuring delivery of products and services.
12. The supplier shall assist Ecolab when requested to address our customer issues as they relate to the supplier's product or service.
13. The supplier shall provide documentation or test data requested by Ecolab to assist in the development of a product specification or to respond to a quality issue.
14. When requested, the supplier must be willing to enter into a confidentiality agreement with Ecolab.

Supplier Selection and Approval

Ecolab follows a systematic approach for supplier selection and approval. The key requirements from the potential Ecolab supplier are based on Ecolab Total Quality Management /ISO initiatives. The approval process is designed to meet Ecolab manufacturing specifications. The approval of one supplier location may not be sufficient to qualify all supplier locations, if the supplier has more than one location. Each location may be evaluated on its own merits. Ecolab Quality may review specific elements of the quality system at each location and grant a site by site approval.

A supplier will be qualified after the supplier:

- Meets all commercial and financial requirements.
- Completes the Supplier Survey questionnaire. This form will be sent to the supplier by the Ecolab Purchasing associate who is responsible for the supplier. Ecolab will review the questionnaire and determine if an on-site assessment and/or other information is needed.
- Satisfactory response to any findings identified during the on-site assessment.

If the supplier is not approved they will be informed.

Supplier Quality Management System

General Requirements

1. Suppliers must establish, document, and implement a Quality Management System.
2. The supplier shall ensure that the requirements of their quality system are distributed and understood throughout their organization including distribution to their sub-suppliers as appropriate.
3. The supplier shall make certain that adequate levels of authority have been established to ensure the continuous improvement of their quality system.
4. Minimum Quality System Requirements for specific categories are as follows:

Type of Supplier	Minimum Level	Preferred Level
Contract Manufacturers (Non-Regulated Products)	Working toward ISO 9001:2008 compliant system	ISO 9001:2008 certified
Contract Manufacturers (Regulated Products – non medical device)	Agency registered and ISO 9001:2008 compliant	ISO 9001:2008 certified
Contract Manufacturers (Regulated Products – medical device)	Agency registered; ISO 9001:2008 and ISO 13485-2003 compliant	ISO 9001:2008 and ISO13485-2003 certified
OEM Suppliers (Non-Regulated Products)	ISO 9001:2008 compliant	ISO 9001:2008 certified
OEM Supplier (Regulated Products – non medical device)	ISO 9001:2008 certified	N/A
OEM Supplier (Regulated Products – medical device)	ISO 9001:2008 and ISO 13485-2003 certified	N/A
All other suppliers	Working toward ISO 9001:2008 compliant	ISO 9001:2008 certified

5. Suppliers that are ISO certified must notify Ecolab in writing within five (5) business day of any change in their certification status.
6. Suppliers must immediately notify Ecolab if they receive any agency actions from regulatory agencies that could affect the supply of products to Ecolab. Examples of agency actions include consent decrees, notice of probable violations and 483s or warning letters.
7. Upon request, suppliers shall provide evidence of their quality system certification to Ecolab.

Control of Documents

The supplier shall establish and maintain a quality manual that includes the scope of the quality management system, a reference to the documented quality management system procedures and a description of the interaction between the processes within the quality management system.

The supplier shall establish, maintain and document procedures to control all quality system documentation and all data generated under the quality management system. The supplier shall have current revision of documents available at appropriate locations. The supplier shall have a procedure for the control and distribution of drawings, specifications, work instructions and all quality documentation. All documents sent to the supplier should be considered confidential and should not be shared outside of the supplier's organization without authorization from Ecolab. In some cases, the supplier may be asked to enter into a Non-Disclosure Agreement (NDA) or Confidentiality Agreement with Ecolab.

Records must be stored in an environment that will prevent deterioration, damage, or loss and must be readily accessible. All production and quality records relating to the production of products provided to Ecolab must be stored for at least five years. Additional record keeping requirements may be specified by specific business units. Records must be made available upon the request of Ecolab or any regulatory agency within a reasonable amount of time.

Supplier Management Responsibility

Management Commitment

The supplier must demonstrate a commitment to continuous improvement. Management shall communicate to the organization the importance of meeting customer needs and requirements. Management shall establish quality policies and objectives. Management shall conduct regular reviews of the effectiveness of their quality system. When deficiencies are found management shall take action to correct those deficiencies. Management shall ensure that appropriate resources are available to execute the requirements of the quality system.

Customer Focus

The supplier's management must ensure that that needs and expectations of Ecolab are identified, converted into requirements and fulfilled. Suppliers must conform to specifications. Suppliers must meet requirements for reliability, delivery, technical support and cost management.

Quality Policy

The supplier shall adopt a written quality policy that includes a commitment to meeting customer requirements, a commitment to continuous improvement, and is communicated to all levels of the organization. The policy should be appropriate to the purpose of the organization. It should provide a framework for establishing and reviewing quality objectives and should be reviewed for continued appropriateness.

Quality Planning

The management of the supplier shall ensure that goals and objectives are established and deployed for appropriate functions within the organization. The goals and objectives shall be measurable, and consistent with the supplier's quality policy.

Management Responsibility

Senior management must appoint member(s) of management who have responsibility and authority for the planning, execution, control and improvement of quality related activities. Management shall ensure that communication takes place between all levels of the organization including the shop floor regarding the processes of the quality management system and its effectiveness. Management shall ensure that the quality system includes a long term quality improvement program. This program must be made available for review by Ecolab upon request.

Management Review

The supplier's management shall periodically review the effectiveness of their quality management system. Management reviews shall occur at set interval and include a pre-determined agenda of inputs and outputs. The objective of these meetings is to determine if the quality management system is effective. One of the major constituents of the management review meetings is a review of the corrective action process. The review meeting shall include a communication of the corrections to deficiencies. The output of the management review meetings will include a set of action items that are reviewed at subsequent review meetings.

Supplier Resource Management

Human Resources

The supplier shall ensure that appropriate resources are available to ensure that the product or service produced meets Ecolab requirements. Resources shall be available to ensure that the quality system is implemented and followed. Employees must be trained and qualified for the job that they perform. Employees shall be aware of possible defects in the products they make and be aware of quality tools available to them. Supplier shall maintain evidence of training required, of completed training and of the training's effectiveness. Suppliers shall evaluate each position and determine what skills and training are required.

Infrastructure and Work Environment

Suppliers shall provide the necessary tools and equipment to ensure that products provided to Ecolab meet quality requirements. If specific resources are required, the supplier should document and communicate within the supplier's organization those requirements as appropriate. Suppliers must ensure that the work environment is safe for its employees. If safety equipment is required, the supplier must ensure that those requirements are communicated as appropriate and that the safety equipment is used when necessary. Suppliers must provide appropriate resources to prevent contamination of products provided to Ecolab.

Supplier Product Realization

Quality Planning

Before agreeing to supply product or services to Ecolab, the supplier shall conduct a review of the Ecolab specifications, to ensure that those requirements are defined and understood and the supplier has the ability to meet those requirements. The quality planning methodology may consist of the following: process flow charts, failure mode effects analysis documents, control charts, capability studies, quality and control plans, pre-production approval documentation, plant tests, product validations, etc.

Customer Related Processes

The supplier shall work with Ecolab to meet the customer requirements. This includes meeting all statutory and regulatory requirements, all requirements specifically stated by Ecolab including delivery and post-delivery activities and any additional requirements deemed necessary by the supplier. If Ecolab notices a missing requirement from an Ecolab specification, the supplier shall notify Ecolab of that missing requirement. The supplier shall review the requirements specified by Ecolab prior to making any supply commitment to determine if all requirements have been defined, to determine if any outstanding issues have been resolved, and to determine if the supplier is capable of meeting the Ecolab requirements. The results of these reviews shall be documented and maintained according to the suppliers record retention procedure. When Ecolab requirements change, those changes shall be reviewed and approved by the supplier. The approval should include revisions to appropriate documents within the supplier's organization and communication back to Ecolab indicating that the change has been implemented. The supplier shall work with Ecolab to develop a communication process to respond to Ecolab inquiries and complaints.

Design and Development

In some cases, the supplier will collaborate with Ecolab in the design of a raw material and/or an Ecolab finished good. Suppliers who are collaborating with Ecolab in the design and development process shall have adequate processes in place to guide their part of the process. They should also have an understanding of the Ecolab product design process. Suppliers shall document each step of their product development process and share those findings as appropriate with Ecolab.

Part Approval Process

In some situations, Ecolab requires its suppliers to go through an approval before supplying the parts to Ecolab. The approval process will determine if the Ecolab specification requirements are properly understood by the supplier and if the supplier's process has the potential to produce product that consistently meets the Ecolab requirements during an actual production run. The approval process requirements will be identified by Ecolab representatives at the start of a project.

Production and Service

The supplier shall establish and maintain procedures to document and communicate the steps of the production process. Work instructions, and process control plans or equivalent shall be established and maintained to ensure that all Ecolab specifications are met. The work instructions, process control plans, inspection procedures and test procedures must be made available to the shop floor and quality personnel.

Production of product provided to Ecolab must be carried out in a controlled environment. Such controls shall include use of suitable raw materials and equipment, the availability of work instructions, inspection instructions and test methods, the availability of monitoring and measuring equipment, and the implementation of quality monitoring and product release as applicable.

The supplier shall validate production processes where the output cannot be verified through in process or production monitoring or measurement, to prevent defects that may only be seen after the product is in use. The validation shall include the definition of applicable criteria, approval of equipment and qualification of personnel, use of specific methods and/or procedures, the requirements for records and the process for re-validation.

The supplier shall identify the product by a suitable means throughout the production process. The supplier shall keep appropriate records to provide traceability of all process inputs during the production process. In some cases Ecolab may require a Certificate of Analysis (COA) with each lot of product shipped to Ecolab. The supplier shall protect their products to prevent damage, degradation or contamination during storage and handling.

Purchasing

Suppliers shall establish and maintain controls regarding the purchase of raw materials, sub-assemblies or components used in the manufacture of products supplied to Ecolab. Those controls should include the adherence to specifications, material identification, traceability, visual inspections, labeling, packaging, analytical testing, unitization, shipping requirements and any other requirements needed to ensure that products supplied to Ecolab meet quality requirements.

The supplier shall transfer all of the requirements in this document and the product specification to any sub-supplier used by the supplier. The supplier shall monitor any sub-suppliers used to ensure that all quality requirements are met. In some cases the supplier may be asked to notify Ecolab if a sub-contractor is being used, brought on-line or changed.

Change Management and Deviation Requests

Any change that materially affects the product must be communicated to supplierquality@ecolab.com prior to implementation. Upon notification of the upcoming change, Ecolab may need to re-qualify the material. If the change results in a specification update Ecolab must approve the supplier change before implementation. Ecolab will communicate to the supplier the qualification plan in a timely manner if it is required. Consequences of non-communicated or unauthorized changes could result in suspension of future business activities with the supplier.

Suppliers shall request, in writing, a deviation (or concession) before shipping non-conforming material to Ecolab. A plan to return to normal production and the time required to do so shall be submitted at same time as the written request. At Ecolab's discretion we may require special markings or identification of non-conforming materials all completed at cost to the supplier.

Supplier Measurement, Analysis and Improvement

General

The supplier should develop and maintain the inspection, monitoring, measurement, analysis and improvement processes needed to ensure that the product conforms to Ecolab specifications. The supplier shall determine appropriate methods to use including statistical techniques and/or other methods (e.g. SPC) to monitor their processes.

Monitoring and Measurement

The supplier should develop and maintain a program to monitor customer satisfaction. This may include customer surveys, scorecards, warranty claims, lost business analysis, customer quality data and complaints.

The supplier should develop and maintain an internal audit program to ensure that their quality management system is effective. The program shall include audit criteria, audit frequency and audit methods. The internal auditors shall be selected to ensure impartiality of the audit process. In no cases should an auditor evaluate their own area of responsibility.

The supplier shall establish and maintain a program to monitor and measure the effectiveness of quality management systems processes. Where deficiencies are found, corrective and preventative actions must be taken to address and eliminate those deficiencies.

The supplier shall monitor and measure the characteristics of the product to verify that the product specifications have been met. The monitoring and measurement activities shall be carried out throughout production. When measurement devices are used to verify that the product conforms to specifications, those devices must be calibrated, protected from damage and in good repair.

Records shall be created and maintained to demonstrate that the product conforms to acceptance criteria. Those records shall include the person(s) authorizing the release of product for delivery to Ecolab.

Control of Non-Conforming Product

The supplier must ensure that product identified as non-conforming is not supplied to Ecolab. A documented procedure shall be established to deal with non-conforming product. Acceptable ways of dealing with non-conforming product include:

- Re-working the product to eliminate the non-conformity
- Using the product as-is if approved by Ecolab
- Scrapping the defective product
- Taking actions appropriate to the situation if the non-conformance is discovered after delivery to Ecolab.

In most cases when the non-conformity is not discovered before delivery to Ecolab, the product shall be returned to the supplier or quarantined and scrapped. When non-conforming product is corrected to eliminate the issue it shall be re-inspected using the original inspection process to ensure that all requirements are met. Records of all non-conforming issues shall be created and maintained. Those records shall include subsequent corrective actions taken to prevent future non-conformances and any concessions obtained.

Analysis of Data

The supplier should collect and analyze appropriate data to determine the effectiveness of the quality management system. The analysis shall identify areas where improvements can be made. The analysis shall look at information regarding customer satisfaction, conformity to product specifications, trends of processes and products and supplier quality. Wherever possible the analysis should identify areas of opportunities for preventative actions, particularly for systemic issues.

Corrective and Preventative Actions

Ecolab requires all suppliers to address defects should they arise. Any supplier providing materials or services to Ecolab is required to have a process in place to implement corrective and preventative actions, in response to internal and external problems. Suppliers shall have a structured problem solving methodology in place to guide them towards the root cause of issues. The response time frame to quality issues and corrective action requests will be determined by Ecolab based upon the severity of the issue. Corrective Action requests will typically be sent to suppliers by Ecolab Quality or Purchasing associates. Corrective action responses by suppliers of products to Ecolab; need to include a containment plan, identification method of the root cause(s), implementation of the corrective and preventative action and a verification of the corrective and preventative action's effectiveness.

Supplier Monitoring

Ecolab will monitor the performance of its suppliers. This includes three key activities: supplier audits, supplier scorecards, and supplier review meetings. This system will ensure that the supplier's performance is rated and effectively communicated.

- **Supplier Audits** Periodically, Ecolab may conduct an assessment of a supplier's quality system. Assessments are triggered based upon the risk presented to Ecolab by the supplier. The may include the number and severity of past issues, the volume of products supplied to Ecolab and the period of time since the last assessment. Each supplier will be notified in advance of the audit. The audit can be Process, Product or System based. Any discrepancies found during the supplier audit will require the supplier to provide a corrective action plan to Ecolab quality and/or purchasing within 30 days of audit.
- **Supplier Score Card** Ecolab has established a supplier rating system to generate a supplier scorecard for select suppliers. The focus of this reporting is on Product Quality, Operational Quality (Delivery), and Cost. This scorecard will be used to provide feedback to the supplier on their performance and the potential improvement needed.
- **Supplier Review meeting** Ecolab will conduct a review with selected suppliers on a regular basis. The purpose of this review is to communicate issues, opportunities and further business direction. The supplier will be informed in advance about the review. Ecolab expects the presence of top representatives from the supplier's organization at the review meeting.

Shipping and Delivery Requirements

Ecolab has some site specific shipping and delivery requirements which should be followed by all the suppliers. They may include specific labeling (size, location, content), packaging (construction, materials, etc.), pallet (construction, quantity, etc.), packing list (content, location, etc.) and regulatory (package testing, wood packaging, etc.) requirements. In some cases, Ecolab may ask suppliers to use specific preferred carriers for the delivery of raw materials. Contact your Ecolab Procurement representative for more information.