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Department of Management Sciences

Inventory Management Optimization

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Dear Professor Elhedhli,

This work term report, entitled "Inventory Management Optimization", was created during my work time at the Senegalese based company called Kirène which manufactures several beverages including mineral water, juice, carbonated fizzy drinks, and others. It is the main beverage manufacturer in the country and is part of SIAGRO (Industrial and Food/Beverages Society), a multi-organizational Group. The Process Optimization team I worked for did not fall under any specific department but acted as its own entity as we interacted with various departments.

This is my 1st work term report and was created to outline/document the solution process to the optimization of inventory management at the factory location (where the products are produced), as well as its implementation in the company.

I hereby confirm that I have received no further help other than what is mentioned above in writing this report. I also confirm this report has not been previously submitted for academic credit, in whole or in part, at this or any other academic institution.

Sincerely,

Eldrick Wega 20599669

Acknowledgements

I would like to thank my supervisor for the support with writing up this document and for providing the necessary files. I would also like to acknowledge the representatives from each department with whom we worked. Notably the General Accounts Specialist, IT representative, Logistics Director, Audit representative, Accounting representative, and Sage 100 Specialists.

Contributions

The direct team I worked with on this project was extremely small. It consisted solely of my supervisor, a Project Manager (Process Optimization Engineer), and I. We interacted with various people regularly, although they were not directly working on the project. These include:

- IT Specialist
- Logistics Director oversees all operations at the factory
- Finished Products Manager
- Transportation and Loading Manager
- Procurement Manager
- Auditor

Because of the team's size and the several processes that needed to be learned, I would find myself learning about the company's processes from at least one person in almost every department related to the project: accountants, auditors, and business management employees.

The team's main goal consisted of optimizing the entire procedure of selling products to clients. This includes several workflows – from receiving raw materials from suppliers to the management of stock at the factory to the handling of payment. Because of this the team was involved in a multitude of simultaneous projects and analyses to make sure operations at the factory adhered to lean manufacturing and that waste/risk were reduced to a minimum.

My tasks consisted of working on assigned projects that would help in the overall optimization company processes. I assisted my supervisor with the implementation of an Enterprise Resource Planning (ERP) system by performing several sub tasks — migrating database information, training users of the new software system, assisting with post-launch maintenance. I had the lead on a project that involved restructuring our database for spare parts (bolts, joints, etc.): this involved analysis, interaction with users, and overall restructuring of the database. I also performed an audit/study of the process used for receiving and registering payment from clients and made suggestions as to how to improve this process.

The work described in the report is related to my work term job because it is a project I directly worked on with my supervisor. The installation of the GESCOM ERP and the subsequent inventory management changes that were implemented alongside accounted for a large part of my work time at Kirène. This work also fits

into the company's broader scheme of things because it was responsible for the optimization of a large company process.

Summary

The purpose of this report is to document the solution process which was undertaken to optimize the inventory management at Kirène's factory; this involves the installation of the GESCOM ERP and changes to the inventory management process. The factory suffered from inaccurate inventory tracking, undefined declassification rules, and a lack of automation. By optimizing how stock is handled, factory managers in charge of monitoring stock would find that all stock movements would be automated and accurate, allowing more efficient and effective handling of goods meaning less waste.

The solution outline of this report is divided into 4 parts. These 4 parts are the Planning, Analysis, Implementation, and Post-Launch Maintenance. During the Planning phase, our team looked at all the available features of GESCOM and which ones were applicable to the factory's inventory management. We also thoroughly observed the stock handling procedure in-place at the time and, using all this information, theoretically implemented GESCOM in the appropriate places of said procedure — answering the question: "If we used GESCOM, where in the procedure would we use it?" The Analysis phase involved forming requirements for an improved inventory management system and using these requirements to restructure it. It also includes the analysis conducted for the FP and RM Databases in GESCOM which needed to have their issues solved before GESCOM installation. The Implementation phase involved transferring data to the new FP and RM databases successfully. During this phase, our team also created the Supplier Database to clearly define from whom we were buying RMs and use the information in GESCOM. Finally, we trained the involved stakeholders. During the Post-Launch Maintenance, our team was on-site to make sure everything rolled out smoothly.

The main conclusions that are pulled from this report are the phases (major steps) themselves in the inventory management optimization.

Throughout this report, it was recommended that monitoring of the newly implemented GESCOM and inventory managements process be undertaken for a long period of time after the Post-Launch Maintenance. It is also highly suggested to postulate for higher internet speed at the factory so that the GESCOM (an internet-based ERP) can operate at faster levels. The final recommendation was to have the GESCOM manual available at the factory and make sure it is updated appropriately.

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1. Introduction

1.1. Background Information

As an industrial manufacturer, Kirène's main goal is to successfully process raw materials (RMs) into finished products (FPs) and sell these products to a multitude of clients. The company buys these RMs from suppliers. For this reason, our team is focusing on improving this whole process and ensuring minimal waste. By decreasing costs of our core process, we move towards increasing profit. The company is separated into 3 facilities: The headquarters (HQ) which are in downtown Dakar where my supervisor and I are stationed. The storage facility which holds the majority of spare parts and some FPs – it is also located in town about 20 minutes away from the HQ. The factory which is where the supply chains are held and FPs are created. It also holds storage spaces which total, around 400 m² less than the storage space at the storage facility. The storage spaces at the factory are the ones we will be dealing with throughout the project. All this information is important to know because my supervisor and I move a lot between these facilities, notably between the HQ and the factory, for the progression of this project.

Kirène uses the ERP system Sage 100 for accounting, distribution, and inventory management and other functionalities. The ERP is dubbed GESCOM, this is short for "Gestion Commerciale" which translates to "Commercial Management" in English. GESCOM is used at the HQ and storage facility by the IT, Audit, and Accounting departments. It is, at the start of this project, not used at the factory.

The Finished Products, Transportation & Loading, and Procurement managers are stationed at the factory. They are the main stakeholders in this project and will be the ones who will be using the ERP system. The Sales Representatives act as a bridge between the clients and the company by ordering on their behalf and dealing with client payment methods, among other things. Almost every client has 1 Sales Rep. There are 800+ clients.

The prices at which RMs or FPs are sold depend on the following:

- Client's history with the company
- Current monetary status with respect to Kirène (if they owe the company money from previous orders)
- Availability of the 'predicted stock' (details in Section 2)
- Quantity ordered. If the quantity ordered is above a predetermined specific threshold, the tariff becomes a 'wholesaler tariff' and has the price per unit reduced.

Although the Groupe Kirène primarily produces mineral water under its brand name, it also produces and sells milk, juice, and other drinks under other brand names. Appendix A has the information on all FPs.

1.2. Problem Statement

The problem being addressed is the poor management of RMs and FPs at the factory. Essentially, poor inventory management. At the time of the start of the project, several processes such as procurement of materials from suppliers, movement of stock from one location to another, etc. are conducted using outdated physical documents and stored in faulty binders. There are databases that hold information on RMs and FPs in GESCOM but they are cluttered, disorganized, inconsistent in terms of codification, and do not track inventory. Sales Reps are in charge of initiating client orders with Kirène but because they do not have visibility over an accurate current inventory, issues sometimes arise where they may accept an order which shouldn't be accepted (e.g. predicted stock after the order would be negative). There is no concrete record of suppliers. These issues impact the company's ability to effectively execute client orders and have caused waste of time and money in the past.

1.3. Project Objective

This project's objective is to optimize the inventory management at the factory location. A major part of this is successfully implementing the GESCOM ERP at the factory. The inventory management process will also be decentralized and restructured as to increase productivity. Successful implementation will lead to the automation of inventory management through the ERP, less confusion and miscommunication (greater tracking accuracy), and a clearer definition of when an order can be initiated or when it should be postponed.

2. Solution Outline: Planning

Before moving towards the analysis of the inventory management and the implementation of the GESCOM it is important to outline an appropriate procedure for how stock would be managed at the factory – the GESCOM procedure. This procedure must utilize the relevant GESCOM features as close to their maximum potential as possible.

2.1. GESCOM Applicable Features

- Database for individual storage locations and materials (e.g. RM storage at factory)
- Registration of stock procurement
- Registration of stock depletion
- Multi-step creation of purchase/delivery orders which is confirmed and approved by the Accounting and Audit departments - departments efficiently work together through the system.
- Recording of order details from clients (quantity, price, etc.)
- Automatic adjustment of stock quantities depending on movement of goods entered by user

The inventory management procedure will utilize these known features and should be built around them, this will allow much more automation than is currently present.

2.2. Current Inventory Management

The storage present at the factory is separated into 3 parts: RM storage space, FP storage space, and a Quarantine storage space, there is a very small provision storage space for materials immediately out of production. The RM and FP storage spaces are self-explanatory. The Quarantine storage space is meant to only hold resources that are meant to be declassified. Declassification happens if there is a specific issue with the resource such as it being faulty, or not what was expected from suppliers. Once suppliers provide resources, they are separated into their respective storage spaces before the inventory is counted. RMs will usually go through production and come out as a FPs. Movement of stock is recorded in some cases, but not others (e.g. Movement from RM to the "Production" status is recorded but not from "Production" to RM if there is an issue that requires a return).

2.3. GESCOM Procedure

The GESCOM Procedure is built to consider the features that will be used in the GESCOM but also the standard industrial sector procedures and the previous procedure that was used. Figure 1 displays the procedure to be utilized.

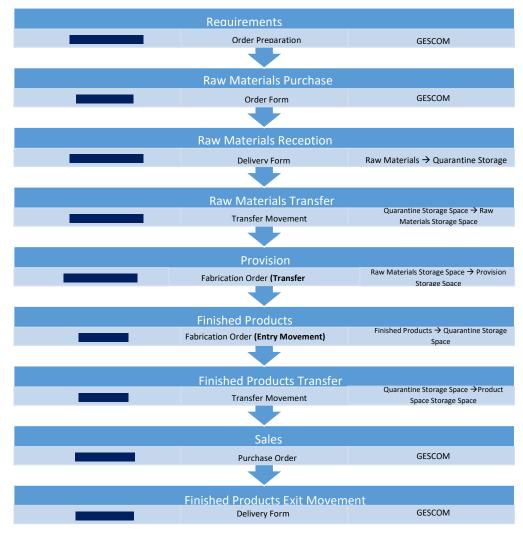


Figure 1: GESCOM Procedure

Each individual block represents a milestone or step in the procedure. The type of document that will be used to record the transfer from one step to another has also been inscribed below the step title. On the right-hand side, there is the movement detail: if the movement was imputed in GESCOM or if there was literal stock movement in the factory. Note that this procedure is at its most basic and considers the steps which the vast majority of RMs will go through.

3. Solution Outline: Analysis

3.1. Inventory Management

3.1.1. Requirements Analysis

The way in which the inventory is separated currently has notable issues, the stock present in the Quarantine storage space fluctuates too much depending on whether several resources had defects or not. There were specific incidents in the past where certain unlawful employees would take the opportunity window between the arrival of stock and the moving stock to their respective RM/FP storage areas to steal goods. Because the inventory had not been counted yet, there was no way of legally penalizing these individuals. The following are requirements that are to be implemented to improve the safety and efficiency of the system:

- Have a specific storage space to accommodate stock the moment it arrives on site
- Have records of every stock movement at the factory
- Remove the "Declassification" option from only being applicable to stock in the Quarantine storage space

3.1.2. Restructuration

Meeting of requirements would mean either

- 1) Creating a new storage space or
- 2) Changing the functionality of one storage space to a 'receiver' to accommodate new stock

Creating a new storage space would be costly and require construction. This would mean incurring money and time loss but obtaining extra space. Alternatively, changing the Quarantine storage space facility would mean no money losses even though extra space is not gained. It would also mean removing its identity as the sole declassification storage space which helps with our 3rd requirement. It was therefore recommended and decided to utilize the Quarantine storage space as a placeholder for resources once they arrive, before having them sent to their respective RM/FP storage spaces. Once RM's pass through the production process and come out as FPs they will be sent back to the Quarantine storage space to double check the inventory. After this the new FPs will be sent to the FP storage space. There will be written records of every movement in this

process (both on paper and on GESCOM) and declassification can happen in any of the three storage spaces. Figure 2 shows chosen the process layout.

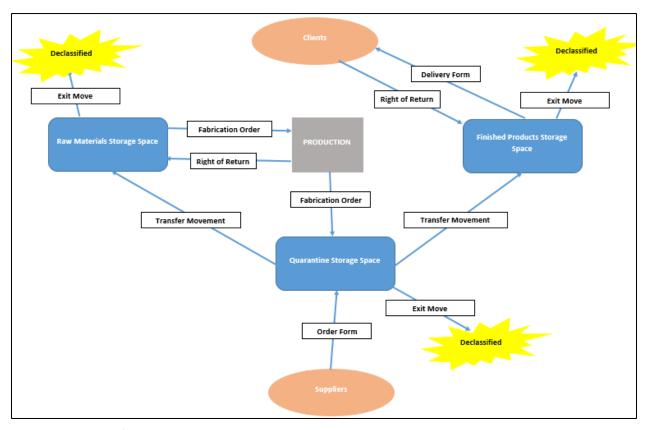


Figure 2: Optimized Inventory Management Process

3.2. GESCOM

3.2.1. Current RM & FP Databases

At the time of writing this, the RM and FP databases that are in GECOM are used to hold information on every product or product bundles that are produced or sold. The information they hold includes ID, Product Designation, Tariff Categories, and General Accounts. Database information is pulled to register order details in GESCOM itself using other functionalities. Order details are used by the Accounting and Audit departments for client orders, and this needs to be taken into consideration. The codification used for products is inconsistent as there is no concrete predefined way of identifying a product. The database also holds several spelling errors/inconsistencies under the Product Designation column, and lists products that were only sold/bought under specific conditions (i.e. promotional offers or special events) which shouldn't be registered.

The RM Database does not respect some of the African Business Rights Harmonization Organization (OHADA) standards (Plan Comptable, 2000). This organization sets a celling/floor on specific tariff categories. They also set codification/general account standards in the industrial manufacturing industry in certain African states to facilitate and regulate trade between these countries. See Appendix H.

3.2.2. Codification Requirements

It was decided that codification should work in a way that acts as a reverse pyramid, effectively going from a broader classification to the most specific one. This is so that when a stakeholder is looking for a specific product the searching method they use can be in a coherent order.

The databases would also utilize the method of combined alphabetical and numerical codification (Dhokalia, 1970).

3.2.3. FP Database Analysis

It was recommended that the Finished Products Manager be the only one to have the right to add and remove products in the database. Product Designations would also need to follow a specific naming convention:

An example would be **MM** Orange **33cl** *12. The volume would describe the volume for one unit and the quantity would be how many units are included in the specific product package. It is important to note that the tariff categories represent prices for one unit only and not the whole product package. The advantages of using this naming convention assures that the name clearly defines all specific aspects of the product or product package. It is also concise and straightforward with no unnecessary verbiage. Disadvantages include the fact that the product type (e.g. Carbonated Soft Drink) is not mentioned, which could have been a supplementary level of detail. This is however answered in codification.

Determining the codification that should be used for the FP Database meant analyzing the how the database information could be classified and grouped. Upon reviewing the list of FPs, it was observable that the products could be separated into three distinct groups. The product type (water, milk, etc.), brand (Kirène, Minute Maid, etc.), and flavor (apple, unflavored, etc.). It was noted that the product types can be further broken down into 'families'. The milk product type, for example, can be separated into whole, semi-skilled, and concentrated; the families are subsections of product types in a sense. Because there are 3 major

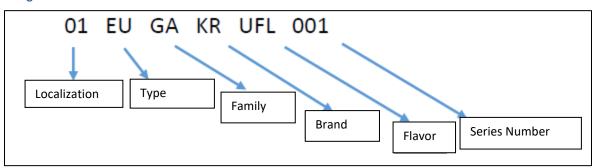
classifications, we obtain 6 different combinations possible, Table 3 shows the different codification options that were available. Note that product families count as sub-classifications of product types and will therefore always follow it in the codification orders.

Table 1: FP Codification Options

Codification 1	Type + FAMILY	\rightarrow	Brand	\rightarrow	Flavor
Codification 2	Type +F AMILY	\rightarrow	Flavor	\rightarrow	Brand
Codification 3	Brand	\rightarrow	Type + FAMILY	\rightarrow	Flavor
Codification 4	Brand	\rightarrow	Flavor	\rightarrow	Type + FAMILY
Codification 5	Flavor	\rightarrow	Type + FAMILY	\rightarrow	Brand
Codification 6	Flavor	\rightarrow	Brand	\rightarrow	Type + FAMILY

Out of all 3 classifications, flavor is the most specific: starting a search in this database for a specific product with 'Mango' flavor, for example, narrows it down to only 3 products. Although starting specific might be beneficial for some codification methods, our model depended on the reverse pyramid style which is the opposite. Product type and brand appeared to be both broad to similar extents, so their order wouldn't matter too much. This leaves our codification options to have flavor as the last one, meaning Codifications 1 or 3 by elimination. Because there was no distinct way to choose between Codifications 1 and 3 using the reverse pyramid method, we contacted the factory managers and accounting/audit department representatives and discussed efficiency. Realistically, we concluded, it was more likely for an employee to visualize the product type before remembering its brand, especially since several brands might fall under one type. By starting codification with product type, it is potentially making the first search step faster and thus slightly improving efficiency. When searching for a fizzy drink, the first reflex would most likely be "Soft Drink" rather than "Schweppes". Therefore, the recommendation was to choose Codification 1 as it was the superior choice. The next step was to preface this codification with a location identifier. Even though there was only 1 storage location considered at the time this report was written, the location identifier was included in the case of company expansion. Finally, as is the standard for industrial companies, 3-digit series numbers were attached at the end of the codification. Below is an example of the new format for Kirène's sparkling water line - Kirène Gazeuse 0,75L*6. See Appendix C-1 for more details.

Figure 3: FP Codification



3.2.4. RM Database Analysis

Contrarily to the FP Database, the RM Database would not require a single naming convention. This was concluded because there is too much variance in names and having one convention for all RMs is unfeasible. Instead, using the official RM names utilized in the industrial market was the solution. It was recommended that the Procurement Manager be the only one to have the right to add and remove products in the database.

Classification of RMs was required to determine the codification method that would be used. However, only 2 major classifications were found: material type (input, consumable, and packaging) and procurement status (local or import). Material type possesses a 'family' sub-classification exactly like product type. The procurement status clarifies whether the RM was acquired locally or imported from outside the local zone. The local zone encompasses West Africa excluding a few countries; notably Benin, Burkina Faso, Gambia, Ghana, Guinea, Ivory Coast, Mali, Niger, Nigeria, Senegal, and Togo.

Table 2.1 shows the available codification options, assuming material family must follow the material type because of its sub-classification status.

Table 2.1: RM Codification Options (1)



A 3-digit series number is attached at the end, as is the standard for industrial companies. The procurement status must be registered as '1' for local RMs and '2' for imported RMs – this is the required codification from OHADA. Because of this, it would not make sense to put the procurement status at the end because its combination with the series number could potentially leave the user confused. Placing it at the beginning has no particular benefit, and using the reverse pyramid rule (explained in Section 3.2.2.) it is clear that procurement status is not broader than material type. Therefore the option to put it between the material

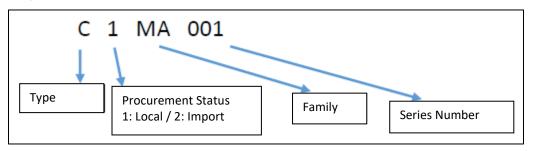
type and family could be a viable option, accommodating both the user (efficiency), and the reverse pyramid methodology. Codification 3 from Table 2.2 was the recommended choice.

Table 2.2: RM Codification Options (2)



Below is an example of the new format for 25kg of salt pellet. See Appendix C-2 for more details.

Figure 4: RM Codification



4. Solution Outline: Implementation

4.1. Supplier Database

The supplier database was created to have a clear record of all concerned suppliers that provide RMs. The codification follows OHADA regulations which consists of the digits '401' (the Senegalese distinct regional code) followed by the first 4 characters of the supplier name. See Appendix D.

4.2. FP & RM Databases Restructuration

The original FP Database is entitled SIAGRO_PF. The team needed to trim down the database to only include products that are sold consistently – no promotional products, special event products, etc. For 3 business days, we worked with the IT and Commercial Management departments to determine which product and product bundles were not consistently sold. After a list of "core" products was formed, the naming convention and codification detailed in Section 3.2.3 was applied to each FP. All the new FPs were entered in the database SIAGRO_PF2.

The original RM Database is entitled SIAGRO_MP. Similarly to the FP Database, our team spent 2 business days working with the IT and Commercial Management departments to determine "core" materials and material bundles. The codification can be found in Section 3.2.4. New RMs were entered in the database SIAGRO_MP2.

SIAGRO PF2 and SIAGRO MP2 are to be the default databases used for the factory inventory.

4.3. Tariff Categories

Every FP and RM has a certain number of tariff categories which are used to determine the pricing that will be charged to the client. The available categories are listed below. Note that not all categories are necessarily used by a product or product bundle:

- WHOLESALER / PICK-UP
- WHOLESALER / DELIVERY
- SEMI WHOLESALER
- MINIMARKET

- RETAILER
- PERSONAL SALE MANGEMENT
- 19L CONSUMER
- PAST PICK-UP TARIFF

- PERSONAL SALE GROUP
- EXPORT

- 19L DISTRIBUTOR
- CONSUMER

The tariff categories for each FP and RM needed to be transferred successfully from SIAGRO_PF and SIARO_MP to SIAGRO_PF2 and SIARO_MP2. To do this I first copied all the Tariff Categories from SIAGRO_PF and SIAGRO_MP manually on separate organized Excel files — one for FPs and another for RMs. After this I went through the file to review my inputs and make sure no mistakes were made. My supervisor did the same thing after my review. After these 2 reviews, we deemed the entries accurate. This entire process took about 7.5 business days.

Next, I used these Excel files to enter the tariff categories into the SIAGRO_PF2 and SIAGRO_MP2. Again, I performed an initial review which was followed by my supervisor conducting a secondary review. The information was deemed accurate. The Excel files were kept as tracking forms and for safekeeping. This process took 5 business days to complete.

4.4. General Accounts

General accounts are identification numbers assigned to FPs and RMs by OHADA. These are of use to the Accounting departments to register the quantity of specific products and materials bought/sold. Industrial and manufacturing companies (Kirène being one of them) must also report bought/sold resources using these general accounts to the government every year. The old RM database did not have general accounts registered (non-compliance to OHADA standards) while the FP database did. For the FP database, similarly to tariff categories in Section 4.3, I made an excel file to register the general accounts from SIAGRO_PF and then used this file to transfer them to SIAGRO_PF2, with 2 review stages in between. This took a total 5 business days.

Because there was no record of general accounts for the RM database, our goal was to successfully assign these accounts to each RM. To accomplish this, I used two Excel files. The first one (File #1) had a list of all the relevant general accounts provided by a specialist in the Accounting department. The second one (File #2) had a list of all RMs in the SIAGRO_MP2 database. I started by going down the general accounts list in File #1 and would input the account code into its row in File #2 if I deemed it applicable to the specific RM. My supervisor and I then contacted our specialist and upon much revision File #2 became a concrete database of RMs and their respective general accounts — see Appendix B. I then input these general accounts into SIAGRO_MP2 and reviewed the data before confirming that the process was complete. This process took 5 business days to complete.

4.5. User Training

The user training process involved my supervisor and I creating individual PowerPoint presentations for each of the 3 factory managers (Procurement, Transportation & Loading, Finished Products). The processes take into consideration the roles they already had as well as the changes they needed to undertake to use the GESCOM. The presentations walked them through GESCOM workflows step by step and had specific example.

Training lasted 2 days and involved my supervisor and I going to the factory. The training happened in the form of meetings with the Logistics board. They outlined all the impending changes and went over the training for all 3 managers. It was important to include the Logistics Director and other Managers so that they could be in the know of the changes. It also allowed us to present the new inventory management process.

5. Solution Outline: Post-Launch Maintenance

5.1. Transition / Testing

The GESCOM database was launched at the factory on November 20th. For 2 weeks, we undertook a transitional testing period. During this period, instead of fully switching over to GESCOM, we had the intended managers performing their original tasks in addition to using the newly implemented GESCOM workflows. The new inventory management process had also been implemented and needed to be closely watched. This is so that the older process and the newer one had an overlap period to facilitate the change without jeopardizing the quality of work, while simultaneously getting the stakeholders used to GESCOM. It also allowed us to detect any issues with the system. My supervisor and I were on-site during these 2 weeks to help the managers with any questions/concerns.

5.2. Internet Connectivity

During the testing period, it was determined that the initial internet speed at the factory was not at an appropriate level. Therefore, a major suggestion is to contact the company's internet service provider, 'Orange', and increase the debit speed at the factory location. The package price will most likely be higher due to the factory's remote location. It should also be noted that upper management will have to be notified of the additional project costs.

5.3. Monitoring

It is imperative that an individual familiar with the GESCOM is on-site to assist the Procurement, Transportation & Loading, and Finished Products Managers at the factory for any potential issues that may arise after the testing period. Monitoring must last for about 3 months to ensure smooth transition. Employees familiar with the GESCOM include:

- 1. Process Optimization Engineer (My supervisor or I)
- 2. Sage 100 Specialist (5 total available in the SIAGRO enterprise)

5.4. GESCOM Documentation

Even beyond the monitoring period and in the case of new hires, the probability of GESCOM users at the factory needing documentation on the GESCOM and is functionalities is high. Therefore, the company's GESCOM handbook, provided by the Sage 100 Specialist team in SIAGRO, needs to be available at the factory. The handbook also needs to be updated appropriately to ensure that it is useable.

Conclusions

The GESCOM ERP was not present at the factory and needed to be implemented to help automate inventory management. Implementation of GESCOM required Planning (1 month), Analysis (2 weeks), Implementation (2 months), and Post-Launch Maintenance (2 weeks).

During Planning, we worked towards visualizing the procedure that would be used at the factory for GESCOM – this included which manager would input what into specific parts of GESCOM. It also meant outlining the issues we would be solving and what parts of GESCOM would be of use at the factory.

The Analysis period concluded that the inventory management process needed to be revamped. The previous process had several issues including storage location misuse, limited declassification process, and lack of inventory tracking. The newer proposed process which was later implemented solved all of these issues. The FP and RM Databases were also determined to be disorganized, cluttered, and inconsistent. There were several codification options and the optimal ones were chosen using the reverse pyramid methodology and the concept of efficiency.

Implementation involved restructuring the FP and RM Databases using Excel files as transitions. These files were then kept for tracking and archiving. It also involved providing training to users, proposing the recommended inventory management process, and forming a supplier database.

Post-Launch Maintenance was the last step and allowed us to conclude the GESCOM implementation. A 2-week transition period was enacted to survey the newly established ERP and processes at the factory.

Overall, the entire process lasted about 4 months. It required the involvement of a Sage 100 Specialist, Accounting Specialist, the Logistics upper management, and an Audit representative. The primary stakeholders are the Procurement, Transportation & Loading, and Finished Products Managers. The secondary stakeholders are the 800+ Sales Representatives as well as the Accounting and Audit departments.

Recommendations

Several recommendations were made which were carried out later into the GESCOM implementation process. These recommendations were based on the report analysis. One of these was to change the inventory management process to one which had enhanced inventory tracking and a decentralized declassification process. This would prevent potential errors and waste of space for inventory management. It was also recommended to choose Codification 1 for the FP database and Codification 3 for the RM Database. Both codifications followed the reverse pyramid methodology while adhering to the concept of efficiency.

The following recommendations were made once GESCOM was implemented and are directed to my employer. It is suggested that monitoring of GESCOM and the new inventory management procedure continues for 3 more months in case a specific issue arises. Also, because GESCOM requires internet connectivity and the factory is in a remote location with poor internet debit, it is highly recommended that direction allow a budgetary increase to pay for higher internet speed at the factory from our ISP. Finally, the GESCOM handbook should most definitely be provided at the factory for employees to refer to in the future in the case of new hires or forgetfulness. This document needs to be kept up to date.

Glossary

ERP (system) Enterprise Resource Planning system. Software used by manufacturing

companies to manage and integrate areas such as planning, purchasing,

accounting, inventory, sales, finance, etc.

GESCOM Short for "**Ges**tion **Com**merciale". This is directly translated to Commercial

Management. GESCOM (officially called Sage 100) is an ERP system used by the

company.

RM Raw Material

FP Finished Product

References

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Appendices

Appendix A: FP Information

Reference ID	Product Designation	General Account	General Account	General Account
01EUPTKRUFL001	Kirène 19L *1	702195	702196	
01EUPTKRUFL002	Kirène 10L *1	702145	702145	70221
01EUPTKRUFL003	Kirène 1,5L *6	70211	70221	
01EUPTKRUFL004	Kirène 0,5L *12	70215	70215	70221
01EUPTKRUFL005	Kirène 0,25L			
01EUGAKRUFL001	Kirène Gazeuse 0,75L*6	702140	702140	
01JSNTPRPOM001	Présséa Pomme 1L *12	70208	70208	70223
01JSNTPRORA001	Présséa Orange 1L *12	70205	70205	70223
01JSNTPRORL001	Présséa Orange light 1L *12	702050	702050	70223
01JSNTPRANA001	Présséa Ananas 1L *12	70206	70206	70223
01JSNTPRMAN001	Présséa Mangue 1L *12	70209	70209	70223
01JSNTPRGOY001	Présséa Goyave 1L *12	70207	70207	70223
01JSNTPRCOC001	Présséa Cocktail 1L *12	70210	70210	70223
01JSNTPRCOL001	Présséa Cocktail light 1L *12	702100	702100	70223
01JSNTPRBIS001	Présséa Bissap 1L *12	702051	70223	
01JSNTPRMAC001	PrésséaMix Coco Ananas 1L *12	7021072	7021072	70223
01JSNTPRMAG001	PrésséaMix Ananas Gingenmbre 1L *12	7021073	7021073	70223
01JSNTPRMMP001	Présséa Mangue Passion 1L *12	7021076	70223	
01JSNTPRMCM001	Présséa Cocktail Mango 1L *12	7021077	70223	
01JSNTRNORA001	RANI Nectar Orange 1L*12	702190	7022901	
01JSNTRNORA002	RANI Nectar Orange 1L*8	702190	7022959	
01JSNTRNORA003	RANI Nectar Orange 500ml*12			
01JSNTRNMAN001	RANI Nectar Mangue 1L*12	702190	7022911	
01JSNTRNMAN002	RANI Nectar Mangue 1L*8	702190	7022958	
01JSNTRNMAN003	RANI Nectar Mangue 500ml*12			
01JSNTRNPOM001	RANI Nectar Pomme 1L*12	702190	7022941	
01JSNTRNPOM002	RANI Nectar Pomme 1L*8	702190	7022960	
01JSNTRNPOM003	RANI Nectar Pomme 500ml*12			
01JSNTRNANA001	RANI Nectar Ananas 1L*12	702190	7022931	
01JSNTRNANA002	RANI Nectar Ananas 1L*8	702190	7022957	
01JSNTRNANA003	RANI Nectar Ananas 500ml*12			
01JSBSMMORA001	MM Orange 1L*6	70210851	70220851	
01JSBSMMORA002	MM Orange 33cl *12	7021082	70228	
01JSBSMMMPO001	MM Mangue Pomme 1L*6	70210831	70220831	
01JSBSMMMPO002	MM Mangue Pomme 33cl *12	7021080	70228	
01JSBSMMMPO003	MM Mangue Pomme TFA 100ml*	702130	702130	
01JSBSMMTRO001	MM Tropical 1L*6	70210841	70220841	
01JSBSMMTRO002	MM Tropical 33cl *12	7021081	70228	
01JSBSMMTRO003	MM Tropical TFA 100ml*	702131	702131	
01JSBSRNMPO001	RANI Boisson Mangue Pomme 1L*6	702190	7022910	
01JSBSRNMPO002	RANI Boisson Mangue Pomme 33cl*12	702190	7022912	

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01JSBSRNORA001	RANI Boisson Orange 1L*6	702190	702290	
01JSBSRNORA002	RANI Boisson Orange 33cl*12	702190	7022902	
01JSBSRNTRO001	RANI Boisson Tropical 1L*6	702190	702292	
01JSBSRNTRO002	RANI Boisson Tropical 33cl*12	702190	7022921	
01JSBSPRORA001	Présséa Boisson Canette Orange 33cl			
01JSBSPRGOY001	Présséa Boisson Canette Goyave 33cl			
01JSBSPRMAN001	Présséa Boisson Canette Mangue 33cl			
01JSBSPRCOC001	Présséa Boisson Canette Cocktail 33cl			
01LTLECDUFL001	Candia Entier 1L *12	70218	70218	70222
01LTLECDUFL002	Candia Entier 1L *6	70218	70222	
01LTLECDUFL003	Candia Entier 1L *4	7021062		
01LTLECDUFL004	Candia Entier 500ml *15	7021805		1
01LTLECDUFL005	Candia Entier 500ml *10			
01LTLECDUFL006	Candia Entier 500ml *6			
01LTLECDUFL007	Candia Entier 500ml*4			
01LTLDCDUFL001	Candia 1/2 écrémé 1L*12	70217	70217	70222
01LTLDCDUFL002	Candia 1/2 écrémé 1L *6	702185	70222	
01LTLDCDUFL003	Candia 1/2 écrémé 1L *4			
01LTLDCDUFL004	Candia 1/2 écrémé 500ml *15	7021750	702275	
01LTLDCDUFL005	Candia 1/2 écrémé 500ml *10			
01LTLDCDUFL006	Candia 1/2 écrémé 500ml *6	7021755		
01LTLDCDUFL007	Candia 1/2 écrémé 500ml *4			
01LTLDCDUFL008	Candia 1/2 écrémé 200ml *21	702085	702085	702235
01LTLDCDUFL009	Candia 1/2 écrémé ECOLE 200ml *21			
01LTLACUCHO002	CandyUp Chocolat 200ml *21	7020890	7020890	702235
01LTLACUFRA001	CandyUp Fraise 200ml *21	702087	702235	
01LTLACUVAN001	CandyUp Vanille 200ml *21	702088	702235	
01LTLCCDUFL002	Candia Lait concentré 100ml			
01CDFSCCCCA001	Coca-Cola Canette 33cl *24	7011500	7011500	7012500
01CDFSCCCCL001	Coca-Cola Light Canette 33cl *24			
01CDFSCCCCZ001	Coca-Cola Zero Canette 33cl *24	7011501	7011501	7012501
01CDFSFTORA001	Fanta Orange Canette 33cl *24	7011502	7011502	7012502
01CDFSSPLEM001	Sprite Canette 33cl *24	7011503	7012503	
01CDFSSHLEM001	Schweppes Fruity Lemon			
01CDFSSHAGR001	Schweppes Fruity Agrumes			
01CDSWSHUFL001	Schweppes Tonic 25cl	7011504	7012504	
01CDSWSHUFL002	Schweppes Soda			
01EDCFMOUFL001	Monster Boisson Canette Energy *12	7011400	7012400	
01EDCFMOUFL002	Monster Boisson Canette Ripper *12	7011401	7012400	
01EDCFMOUFL003	Monster Boisson Canette Assault *12	7011412	7012400	
01EDCFMOUFL004	Monster Boisson Canette Energy *24	7011410	7012400	
01EDCFMOUFL005	Monster Boisson Canette Ripper *24	7011411	7012400	
01EDCFMOUFL006	Monster Boisson Canette Assault *24	7011412	7012400	
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Appendix B: RM Information

Reference ID	Material Designation	General Account	General Account	General Account
C1MA001	Sel en pastille 25 kg	60430		
C1MA002	W 110 L 30 kg	60430		
C1MA003	Lubodrive 200 kg	60430		
C1MA004	MeltoClean 4500 ml	60430		
C1MA005	Peroxyde d'hydrogène 50% 35 kg	60430		
C1MA013	MAKE UP MC 899	60216		
C1MA014	IR 899	60210		
C1MA015	IC 899	60210		
C1MA017	IC 292 BK	60210		
C1MA018	IR 292 BK	60210		
C1MA019	MAKE UP MC 292BK	60216		
C1MA020	MAKE UP pour Domino MC 2BK024	60216		
C1MA021	Encre pour Domino IC2BK 024	60210	60212	602220
C1MA023	Dicolub VL70 200 kg	60430		
C1MA024	Solvant Video Jet	60215	602221	
C1MA025	Make Up Video Jet 705 D	60216		
C1MA026	Make Up Video Jet 706 D	60216		
C1MA027	Encre Video Jet V 410 D	60210	60212	602220
C1MA028	Encre Video Jet V 411 D	60210	60212	602220
C1NE001	Oxonia CIP 20kg	60430		
C1NE002	Ecolab MIP C3 CIP 27kg	60430		
C1NE003	Topax 19 24kg	60430		
C1NE004	Acide Nitrique 35 kg	60430		
C1NE005	Soude Caustique 25 kg	60430		
C1NE006	Swift clean 9400 8 kg	60430		
C1PA001	Intercalaire carton 96*120	604451		
C1PA002	Intercalaire bois	604451		
C1PA003	Intercalaire PVC	604451		
C1PA004	Palette Bois 100*120	604452		
C1PA005	Palette Bois 80*120	604452		
C1PA006	Palette plastique 80*120	604452		
C1PA007	Palette plastique 100*120	604452		
C1PA008	Rack 19L métallique	604453		
C1PE001	Masques	60440		
C1PE002	Gants	60440		
C1PE003	Toque	60440		
C2MA006	FILTRES 01 MICRONS (Millipore)	60410		
C2MA007	FILTRES 01 MICRONS (PP)	60410		
C2MA008	FILTRES 03 MICRONS(Millipore)	60410		
C2MA009	FILTRES 05 MICRONS (Millipore)	60410		

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C2MA010	FILTRES 10 MICRONS (Pall)	60410	
C2MA011	FILTRES 005 PP MICRONS	60410	
C2MA012	FILTRES 0,2 MICRONS	60410	
C2PA009	Rack 19L Plastique	604453	
E1BO007	Poignée 5L/10L 8003 BERICAP	6021035	602203
E1CS010	Colle froide Swiftak 5377 30kg	60211	602235
E1CS011	Colle chaude Euromelt 300 14kg	602115	602230
E1CS012	Colle clarity Fuhler 15 kg	60211	602235
E1EP011	Etiquette Papier poignées packs Kirène 1,5L	602103	
E1SE001	Carton berlingot 1/2 écrémé standard *21	602110	
E1CS001	Scotch carton PM 100 mètre	60415	
E1SE002	Carton berlingot lait à l'école *21	602110	
E1SE003	Carton lait 1/2 écrémé 500 ml *15	602111	
E1SE004	Carton lait entier 500 ml *15	602111	
E1SE006	Carton lait 1/2 écrémé 1L	602111	
E1SE007	Carton lait entier 12 x 1L	602111	
E1SE008	Carton Candy up Vanille *21	602110	
E1SE009	Carton Candy up Choco *21	602110	
E1SE010	Carton Candy up Fraise *21	602110	
E1SE016	Carton lait 1/2 écrémé 500 ml *12	602111	
E1SE017	Carton lait entier 500 ml *12	602111	
E1SE018	Carton Rani 1L *8	602113	602113
E1SE019	Carton Rani 1L *12	602113	602113
E1SE020	Carton TFA MM *60	602113	602113
E2CS003	Colle HOT MELT 258,50 carton 25 kg	602115	602230
E2CS004	Colle HOT MELT 250,30 paille 25 kg	602115	602230
E1EP012	Étiquette 0,33cl MM Mangue Pomme OPP	6044150	
E1EP013	Étiquette 1L MM mangue pomme OPP	604415	
E1EP014	Étiquette 0,33cl MM Orange OPP	6044150	
E1EP015	Étiquette 1L MM Orange OPP	604415	
E1EP016	Étiquette 0,33cl MM Tropical OPP	6044150	
E1EP017	Étiquette 1L MM Tropical OPP	604415	
E1EP018	Étiquette Kirène 0,75 L OPP	604416	
F4 FD04 0	Étiquette 0,33cl RANI Mangue Pomme OPP	CO4447	
E1EP019	Francophone	604417	
E1EP020	Étiquette 1L RANI mangue pomme OPP Francophone	604417	
E1EP021	Étiquette 0,33cl RANI Orange OPP Francophone	604417	
E1EP022	Étiquette 1L RANI Orange OPP Francophone	604417	
E1EP023	Étiquette 0,33cl RANI Tropical OPP Francophone	604417	
E1EP024	Étiquette 1L RANI Tropical OPP Francophone Étiquette 0,33cl RANI Mangue Pomme OPP	604417	
E1EP025	Anglophone	604417	
E1EP026	Étiquette 1L RANI mangue pomme OPP Anglophone	604417	
E1EP027	Étiquette 0,33cl RANI Orange OPP Anglophone	604417	
E1EP028	Étiquette 1L RANI Orange OPP Anglophone	604417	
E1EP029	Étiquette 0,33cl RANI Tropical OPP Anglophone	604417	

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E1EP030	Étiquette 1L RANI Tropical OPP Anglophone	604417		
E2CS005	Colle HOT MELT 251,30 paille 25 kg	602115	602230	
E2CS006	Colle HOT MELT 250,10 paille 25 kg	602115	602230	
E2TE027	Emballage MM TFA Mangue Pomme 100ML	602114	6021140	602217
E2TE028	Emballage MM TFA Tropical 100ML	602114	6021140	602217
E1BO003	Bouchons 1,5L BERI CAP	60219	602210	
E1BO004	Bouchons 5L/10L BERICAP	60217		
E1BO006	Bouchon minute Maid 1881	602170	60227	
E1SE005	Carton présséa 12 x 1L	602112		
E1BO008	Bouchon Rani 1881	602175		
E1BO009	Bouchon Pétillante bleu foncé	602171		
E1CS015	Adhésif carton TFA 6 rouleaux	602232		
E1EP001	Etiquette 1,5L Kirène OPP	602211		
E1EP002	Etiquette 0,5L Kirène OPP	602211		
E1SE011	Intercalaires 96*120 carton ondulé	604451		
E1SE012	Film rétract 370/50μ	60443		
E1SE013	Film rétractable 320/50μ	60443		
E1SE014	Film rétractable 260/50μ	60443		
E1SE015	Film étirable 500/23µ	60444		
E1EP003	Etiquette 1,5L Kirène OPP Personnalisée	602211		
E1EP004	Etiquette 0,5L Kirène OPP Personnalisée	602211		
E1EP005	Etiquette 0,5L Kirène Papier	602211		
E1EP006	Etiquette 1,5L Kirène Papier	602211		
E1EP007	Etiquette 10L Kirène Papier	602211		
E1SE021	Dangler TFA MM	6021140		
E1SE022	Film rétractable 640/50μ	60443		
E1SE023	Film rétractable 680/50μ	60443		
E1SE024	Film rétractable 720/50μ	60443		
E1EP008	Etiquette 0,5L Kirène Papier Personnalisée	602211		
E2BO002	Bouchon slim cap vert	602270		
E1EP009	Etiquette 1,5L Kirène Papier Personnalisée	602211		
E1EP010	Etiquette 10L Kirène Papier Personnalisée	602211		
E1PR004	Préformes PET Bleu 31,2 g 1,5L Kirène	60218		
E1PR005	Préformes PET Bleu 17 g 0,5L Kirène	602181	60225	
E1PR007	Préformes PET Bleu 130 g 10L Kirène	602186		
E2BO001	Bouchon slim cap blanc	602270		
E2CS007	TAB STRIP 240TP			
E2CS008	PEP STRIPS			
E2CS009	MPM STRIPS JR			
E2BO005	Bouchons 19L	602206		
E2EP031	Étiquette 19L	604485		
E2CS002	Colle 134-135B bouchons	602240		
E2CS013	Adhésif poignées packs 1,5L	602231		
E2EP032	Paille TCA Soyer *39000	602215		
LZLFUJZ	Talle Tex Suyer Soud	002213		

F3FD033	Daille TEA Tekno *70000	C0224F	6022470
E2EP033	Paille TFA Tetra *70000	602215	6022170
E2PR001	Préformes PCO Crystal 14,5 g 33cl MM/RANI	602261	
E2PR002	Préformes PCO Crystal 28 g 1L MM/RANI	602260	
E2PR003	Préformes PCO Bleu 28 g 0,75L Pétillante	602265	502204
E2PR006	Préformes PET Bleu 130 g 10L Kirène	602186	602204
E2PR008	Préformes PET Bleu 16 g 0,5L Kirène	602181	60225
E2PR009	Préformes PET Bleu 31,2 g 1,5L Kirène	60218	6022020
E2PR010	Préformes Bonbonne 19 L	602205	
E2TE001	Emballage Candia Lait 1/2 écrémé 1L	602212	
E2TE002	Emballage Candia Lait 1/2 écrémé 500 ml	602212	
E2TE003	Emballage Candia Lait entier 1L	602212	
E2TE004	Emballage Candia Lait entier 500 ml	602212	
E2TE005	Emballage Présséa Pomme 1L	602213	
E2TE006	Emballage Présséa Goyave 1L	602213	
E2TE007	Emballage Présséa Cocktail 1L	602213	
E2TE008	Emballage Présséa Cocktail light 1L	602213	
E2TE009	Emballage Présséa Mangue1L	602213	
E2TE010	Emballage Présséa Ananas 1L	602213	
E2TE011	Emballage Candia 1/2 écrémé 200ml	602212	
E2TE012	Emballage Candia 1/2 écrémé lait à l'école 200ml	602212	
E2TE013	Emballage Présséa Orange 1L	602213	
E2TE014	Emballage Présséa Orange light 1L	602213	
E2TE015	Emballage CandyUp Vanille 200ml	602212	
E2TE016	Emballage CandyUp Choco 200ml	602212	
E2TE017	Emballage CandyUp fraise 200ml	602212	
E2TE018	Emballage Présséa Bissap 1L	602213	
E2TE019	Emballage Présséa Cocktail Mango 1L	602213	
E2TE020	Emballage Présséa Mangue Passion 1L	602213	
E2TE021	Emballage Présséa Ananas Coco 1L	602213	
E2TE022	Emballage Présséa Ananas Gingembre 1L	602213	
E2TE023	Emballage RANI Mangue Pomme 1L	602216	
E2TE024	Emballage RANI Pomme Raisin 1L	602216	
E2TE025	Emballage RANI Orange 1L	602216	
E2TE026	Emballage RANI Ananas 1L	602216	
I1AU001	Sacs de bissap vimto	6021990	
I1AU002	Sacs de bissap ordinaire	6021990	
I1CO001	Purée mangue 210 kg	6021995	
I1CO008	Concentré Bissap 20 L	602199	
I1PL001	Lait cru de vache	602198	602280
I1PL002	Lait pasteurisé de vache	602198	602280
I1ST002	Acide Citrique 25 kg	602195	
I2CA001	Colorant Rouge 20 kg	6022851	
12CA002	Arome Vanille LIQUIDE 10 kg	6021909	6022909
I2CA003	Caramel sugar sirop 30 kg	6022909	
12CA004	Strawberry(arome fraise) 20 kg	6021909	6022909

12CA005	Arome Gingimbre piment rouge 10 kg	6021909	6022909
12CA006	Arome Gingembre 5 kg	6021909	6022909
12CA007	Préparation Gingembre 10 kg	6022914	
I2CA008	Emulsion arome mixte de coco 12 kg	6021909	6022909
I2CA009	Arome mangue sluys 25 kg	6021909	6022909
I2CA010	Arome pomme rouge sluys 25 kg	6021909	6022909
I2CA011	Arome passion sluys 25 kg	6021909	6022909
I2CA012	Arome goyave sluys 25 kg	6021909	6022909
I2CA013	Arome orange sluys 25 kg	6021909	6022909
I2CA014	Colorant caramel E150d 5 kg	6022851	
I2CA015	Poudre cacao 25 kg	602287	
I2CA016	Arome vanille en poudre 25 kg	6021909	6022909
I2CO002	Purée goyave 200 kg	6022904	
I2CO003	Concentré Orange240 kg	6022903	
I2CO004	Concentré Ananas 235 kg	6022905	
I2CO005	Concentré cocktail 230kg	6022901	
I2CO006	Concentré Pomme 275kg	6022906	
I2CO007	Concentré cocopina 230kg	6022907	
I2CO009	MM PET MN 143 B01 Part 1B sachet de 4 UN	6022902	
I2CO010	MM PET MN 143 B01 Part 1 sachet de 4 UN	6022902	
I2CO011	MM PET MN 143 B01 Part 1D sachet de 4 UN	6022902	
I2CO012	MM PET MN 143 B01 Part 2B Bidon de 1 UN	6022902	
I2CO013	MM PET MN 143 B01 Part 2 Bidon de 2 UN	6022902	
I2CO014	MM PET MN 143 B01 Part 2C Fut de 2 UN	6022902	
I2CO015	MM PET FP 541,01 B02 Part 1B sachet de 4 UN	6022901	
I2CO016	MM PET FP 541,01 B02 Part 1D sachet de 4 UN MM PET FP 541,01 B02 Part 1K sachet de 4 UN (Part	6022901	
I2CO017	1C + 1)	6022901	
I2CO018	MM PET FP 541,01 B02 Part 2 Bidon de 4 UN	6022901	
I2CO019	MM PET FP 541,01 B02 Part 2B Fut de 4 UN	6022901	
I2CO020	MM PET OR 1559 B01 Part 1 Sachet de 3 UN	6022903	
I2CO021	MM PET OR 1559 B01 Part 1B Sachet de 3 UN MM PET OR 1559 B01 Part 1D Sachet de 3 UN (Part	6022903	
12CO022	1A + 1C)	6022903	
I2CO023	MM PET OR 1559 B01 Part 2 Bidon de 3 UN	6022903	
I2CO024	MM PET OR 1559 B01 Part 2B Fut de 6 UN	6022903	
12CO025	RANI PET MN 143 B01 Part 1B sachet de 4 UN	6022902	
12CO026	RANI PET MN 143 B01 Part 1 sachet de 4 UN	6022902	
I2CO027	RANI PET MN 143 B01 Part 1D sachet de 4 UN	6022902	
I2CO028	RANI PET MN 143 B01 Part 2B Bidon de 1 UN	6022902	
I2CO029	RANI PET MN 143 B01 Part 2 Bidon de 2 UN	6022902	
I2CO030	RANI PET MN 143 B01 Part 2C Fut de 2 UN	6022902	
I2CO031	RANI PET FP 541,01 B02 Part 1B sachet de 4 UN	6022901	
I2CO032	RANI PET FP 541,01 B02 Part 1D sachet de 4 UN RANI PET FP 541,01 B02 Part 1K sachet de 4 UN (Part	6022901	
I2CO033	1C + 1)	6022901	

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I2CO034	RANI PET FP 541,01 B02 Part 2 Bidon de 4 UN	6022901		
I2CO035	RANI PET FP 541,01 B02 Part 2B Fut de 4 UN	6022901		
I2CO036	RANI PET OR 1559 B01 Part 1 Sachet de 3 UN	6022903		
I2CO037	RANI PET OR 1559 B01 Part 1B Sachet de 3 UN RANI PET OR 1559 B01 Part 1D Sachet de 3 UN (Part	6022903		
I2CO038	1A + 1C)	6022903		
I2CO039	RANI PET OR 1559 B01 Part 2 Bidon de 3 UN	6022903		
I2CO040	RANI PET OR 1559 B01 Part 2B Fut de 6 UN	6022903		
I2CO041	RANI TETRA OR 1218,1 B00 Part 2 Fut de 4 UN	6022903		
I2CO042	RANI TETRA OR 1218,1 B00 Part 2B Fut de 2 UN	6022903		
I2CO043	RANI TETRA OR 1218,1 B00 Part 1D Sachet de 4 UN	6022903		
I2CO044	RANI TETRA AP 455,1 B00 Part 2B Fut de 2 UN	6022906		
I2CO045	RANI TETRA AP 455,1 B00 Part 2 Bidon de 6 UN	6022906		
I2CO046	RANI TETRA AP 455,1 B00 Part 1D Sachet de 6 UN	6022906		
I2CO047	RANI TETRA PA 265 B00 Part 2B Fut de 2 UN	6022905		
I2CO048	RANI TETRA PA 265 B00 Part 2 Bidon de 4 UN	6022905		
I2CO049	RANI TETRA PA 265 B00 Part 1D Sachet de 4 UN	6022905		
I2CO050	RANI TETRA MN 143,4 B00 Part 2C Fut de 1 UN			
I2CO051	RANI TETRA MN 143,4 B00 Part 2B Bidon de 0,5 UN			
I2CO052	RANI TETRA MN 143,4 B00 Part 2 Bidon de 3 UN			
I2CO053	RANI TETRA MN 143,4 B00 Part 1 Sachet de 3 UN			
I2CO054	RANI TETRA MN 143,4 B00 Part 1D Sachet de 3 UN			
I2CO055	MM TFA MN 143,00 B03 Part 1D Sachet de 4 UN			
12CO056	MM TFA MN 143,00 B03 Part 1 Sachet de 4 UN			
I2CO057	MM TFA MN 143,00 B03 Part 2B Bidon de 1 UN			
I2CO058	MM TFA MN 143,00 B03 Part 2 Bidon de 2 UN			
12CO059	MM TFA FP 541,01 B03 Part 2B Fut de 4 UN			
I2CO060	MM TFA FP 541,01 B03 Part 1D Sachet de 4 UN			
I2CO061	MM TFA FP 541,01 B03 Part 2 Bidon de 4 UN MM TFA FP 541,01 B03 Part 1K Sachet de 4 UN (Part			
I2CO062	1C + 1)			
I2PL003	Poudre de lait 0% 25 kg	602197	602280	
I2PL004	Poudre de lait 26% 25 kg	602197	602280	602286
I2PL005	MGLA 15 kg	602285		
I2ST001	Ly gomme ABA 25 kg	6022850		
I2ST003	Conpound RCM 800 (stabilisant)	6022911		
I2SU001	Sucre 45 UI 50 kg	602196	602295	
I2SU002	Sweetner 25 kg	6022910		

Appendix C-1: FP Codification

Family Code

Family

Brand Code

Brand

Localisation: 01	Categories	Code Famille	Famille	Code Marque	Marques
	FILE FALL	PT	PLATE	KR	Kirene
	EU: EAU	GA	GAZEUSE	KR	Kirene
		NT	NECTAR	PR	Pressea
	JS: JUS	IN I	NECIAN	RN	Rani
	13.103	BS	BOISSONS	MM	Minute Maid
		БЗ	BOISSONS	RN	Rani
		LE	LAIT ENTIER	CD	Candia
	LT: LAIT	LD	LAIT DEMI ECREME	CD	Candia
SIAGRO_PF	LT. LATI	LA	LAIT AROMATISE	CU	Candy Up
		LC	LAIT CONCENTRE	CD	Candia
				CC	Coca Cola
CD, C		FS	FLAVORED SODA	SP	Sprite
	CD: CARBONATED SOFT DRINK	13	T LAVOINED SODA	FT	Fanta
	CD. CARBONATED SOFT DRINK			SH	Schweppes
		SW	SODA WATER	SH	Schweppes
		AU	AUTRES		
	ED: ENERGY DRINK	CF	CAFFEINATED	МО	Monster

Appendix C-2: RM Codification

Family

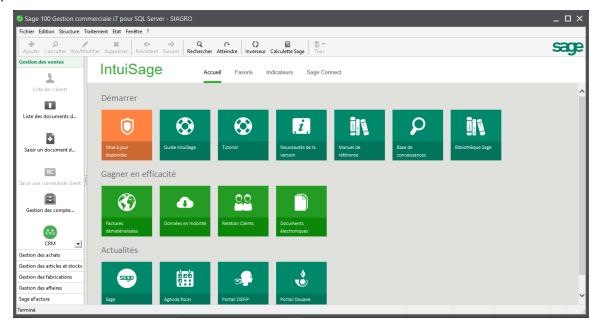
Categories	Familles
	CO : CONCENTRE
	SU : SUCRE
	PL: PRODUITS LAITIERS
I: Intrant	
i. iliti alit	ST : STABILISEURS/EPAISSISSANTS
	CA : COLORANTS ET AROMES
	AU : AUTRES
	NE : NETTOYAGE/CIP
C: Consommables	PE: PERSONNEL
c. consommables	PA: PALETTISATION
	MA: MACHINES
	TE : TETRA PACK
E: Emballage	SE : SUREMBALLAGE
	PR : PREFORMES
L. Ellibaliage	EP : ETIQUETTES/POIGNETS/Pailles
	CS : COLLES/Soudures
	BO : BOUCHONS

Appendix D: Supplier Information

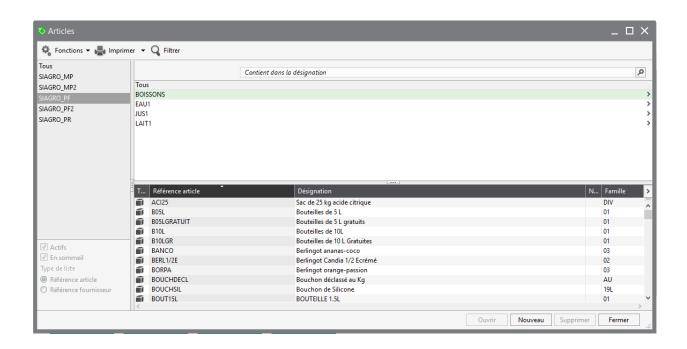
Supplier ID

Compte Tiers	
Fournisseur	Fournisseur
401AGRO	AGROFRUIT
401DOEH	DOEHLER
401FARA	FARAGALLA
401CITR	CITRUMA
401DOEL	DOELHER
401MEYK	MEYKON
401IDTA	INSTITUE DE TECHNOLOGIE ALIMENTAIRE
401COCA	COCA COLA
401SUCD	SUCDEN
401BAUC	BAUCHE
401PROL	PROLAC
4014FIN	4F INTERNATIONAL
401KARV	KARVILLE
401NIAY	LES NIAYES SARRAUT
401COND	CONDIO
401WILD	WILD
401SLUY	SLUYS
4010LAM	OLAM
401PROV	PROVA
401SOCH	SOCHIM
401MAC2	MAC2
401DELT	DELTA MEDICAL
401ROCH	LA ROCHETTE
401SENE	SENEMBALLAGE
401GPMA	GROUPE PMA
401MBAO	MBAO BOIS
401ARID	ARIDIM
401KCIS	KCI Sarl
401LDRE	LOUIS DREYFUS
401ABSE	AFRICAN BIOEXPERTISE SERVICES
401ALIS	ALISMA
401MTRR	MAINTENANT TRANSPORT REALISATION ET REPRESENTATION
401CHIN	CHINTEC
4013ADI	3A DISTRIBUTION
401TETR	TETRA PACK
401SIMP	SIMPA
401SGDT	SOCIETE GENERAL DES TECHNIQUES
401FUMO	FUMOA
401KOKS	KOKSAN
401SENP	SENPACK
401GRIE	
	GRIEF
401POLY	POLYKROM
401SOYE	SOYER
401PROD	PRODIMO
401BERI	BERICAP
401HODM	HODMETTER

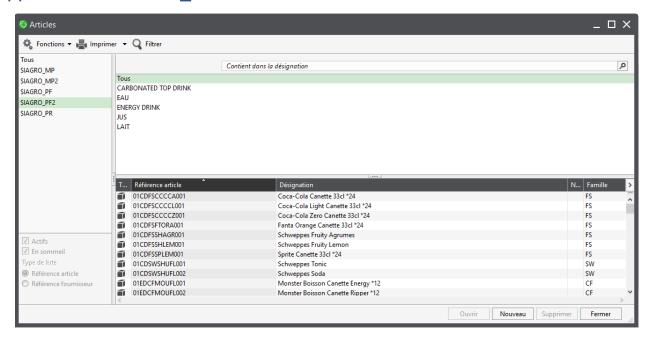
Appendix E: GESCOM Home Interface



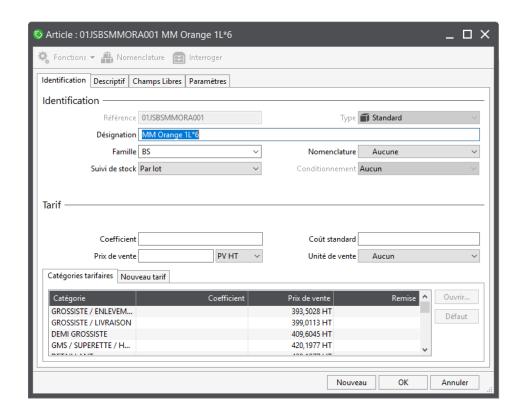
Appendix F-1: SIAGRO_PF



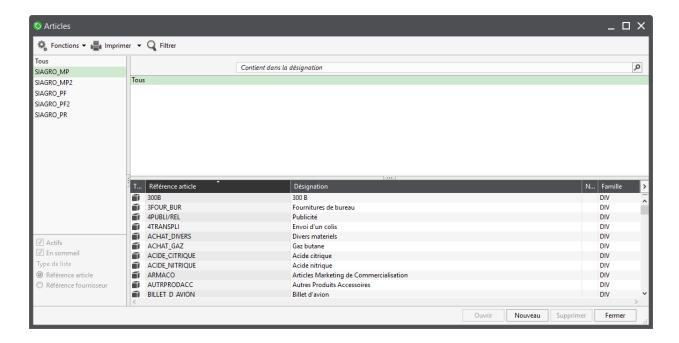
Appendix F-2: SIAGRO_PF2



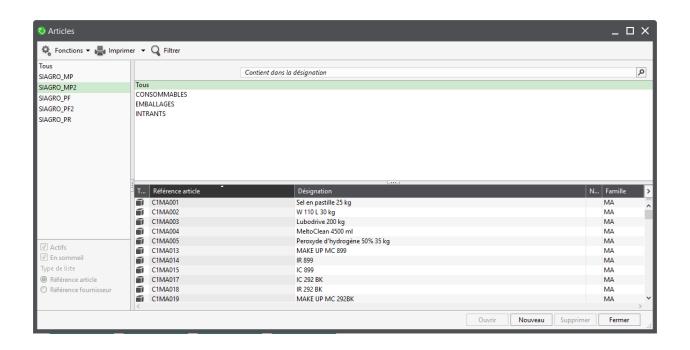
Appendix F-3: FP Tariff Categories Example



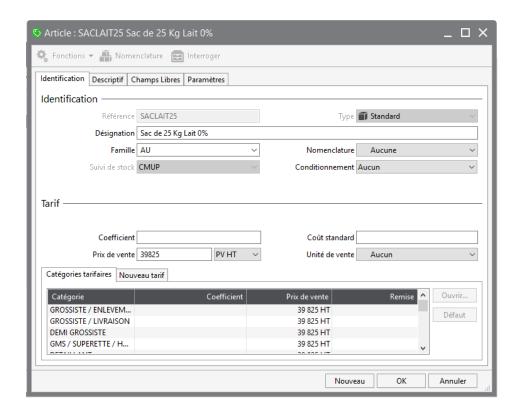
Appendix G-1: SIAGRO_MP



Appendix G-2: SIAGRO_MP2



Appendix G-3: RM Tariff Categories Example

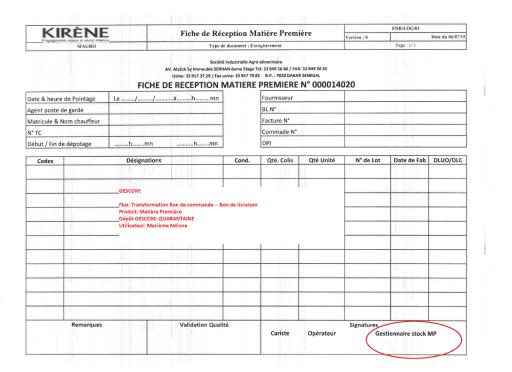


Appendix H: OHADA Countries

All the countries in bright green are OHADA member states. The country in dark green is the Democratic Republic of Congo (DRC). It is a candidate state and currently in the application process for joining the group.



Appendix I-1: RM Reception Form



Appendix I-2: Transfer Movement to FP Form

GROUPE KIRÈNE	FICHE D'ENTREE STOCK PRODUITS FINIS (TETRA)	ENR/LOG/23
Engageons-nous à vivre mieux	FIND (IEIRA)	Version : 0 Date du 05/07/2017
SIAGRO	Type de document : Enregistrement	Page: 1/1

DATE: Durée: Par 24H

PRODUITS	Nombre Palettes	Nombre cartons	Nombre de Briques	Nombre Packs de 4	Nombre Packs de 6	Visa Production	Visa Logistique
N°1			-				
N°2							
N°3							
N°4							
N°5							

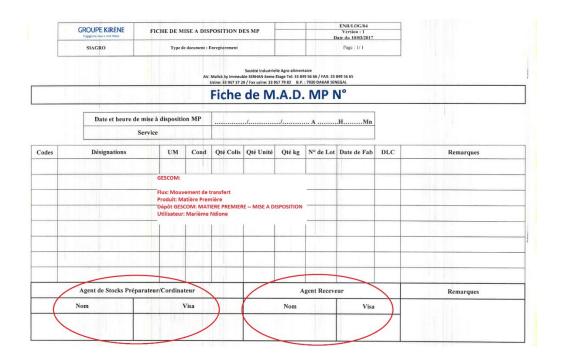
Validation Production

Flux: Mouvement d'entrée Produit: Produit Fini Dépôt GESCOM: QUARANTAINE Utilisateur: Pape Dione

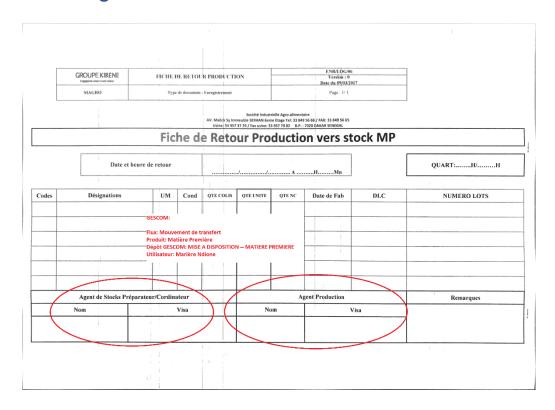
GESCOM:

Validation Logistique

Appendix I-3: Transfer Movement to RM Form



Appendix I-4: Right of Return from Production to RM Form



Appendix I-5: FP Exit Form

GROUPE KIRI			Fiche de Libérations Prod	uits Finis	ENR/QUA/17 Version : 0
SIAGRO			Type de document : Enreg	istrement	Date du 20/11/14 Page : 1/1
e du jour lundi 9 oct	tobre 2017				
Référence	Date de fabrication	N° Lot	Décision Libératoire	Heures palettes non libérées	Motif quarantaine
MM Tropical 33cl *12	vendredi 29 septembre 2017	272	Libéré sauf	13h01;15h11	Bacté non conforme
MM Tropical 33cl *12	samedi 30 septembre 2017	273	Non Libéré	00h07;01h19	Bacté non conforme ; Goût un peu léger
MM Mangue Pomme 33cl *12	undi 2 octobre 2017	275	Libéré sauf	23h45	Bacté non conforme
Présséa Orange 1L *12	mercredi 4 octobre 2017	277	Libéré	0	0
Présséa Cocktail 1L *12	mercredi 4 octobre 2017	277	Ubéré	0	0
Présséa Cocktail 1L *12	jeudi 5 octobre 2017	278	Libéré	0	0
PrésséaMix Coco Ananas 1L *12	jeudi 5 octobre 2017	278	Libéré	0	0
PrésséaMix Coco Ananas 1L *12	vendredi 6 octobre 2017	279	Libéré	0	0
Signa	ture Resp Qualité Produit			Signature Res	State
	F1 09/10 117) FI	ESCOM: ux: Mouvement de transfert roduit: Produit Fini épôt GESCOM: QUARANTAIN!	TRUE	SOURP

Appendix I-6: Movement from FP to Quarantine Form

Désignation	SIAGRO Socio	Bordereau de Retour N° Fiche rapatriement Adresse et nom client Matricule camion Quantité UV	tel : 33 849 56 66 / Fax : 33 849 56 B.P : 7020 DAKAR SENEGAL	ENR/LOG/0° Version: 0 Date du 09/03/2017 Page 1:1
Av Malic Usir ate BC om chauffeur otif du retour : Désignation	SIAGRO Social ck Sy Immeu ine : 33 957 (Bordereau de Retour N° Fiche rapatriement Adresse et nom client Matricule camion Quantité UV	Type de document : Enregistrement Pro-alimentaire tel : 33 849 56 66 / Fax : 33 849 56 B.P : 7020 DAKAR SENEGAL N° 0008751	Date du 09/03/2017 Page . 1 · 1
Désignation	Sociock Sy Immerica Sy Immeric	Bordereau de Retour N° Fiche rapatriement Adresse et nom client Matricule camion Quantité UV	ro-alimentaire tel: 33 849 56 66 / Fax: 33 849 56 B.P: 7020 DAKAR SENEGAL N° 0008751	
Désignation	GESCOM: Flux: Bon de re Produit: Produ	Bordereau de Retour N° Fiche rapatriement Adresse et nom client Matricule camion Quantité UV	tel: 33 849 56 66 / Fax: 33 849 56 B.P: 7020 DAKAR SENEGAL N° 0008751	
PBC om chauffeur otif du retour : Désignation	Flux: Bon de re Produit: Produ Dépôt: QUAR	N° Fiche rapatriement Adresse et nom client Matricule camion Quantité UV etour ult Fini ANTAINE		
Désignation	Flux: Bon de re Produit: Produ Dépôt: QUAR	Adresse et nom client Matricule camion Quantité UV etour uit Fini ANTAINE	N° lot + DLC	
otif du retour : Désignation	Flux: Bon de re Produit: Produ Dépôt: QUAR	Adresse et nom client Matricule camion Quantité UV etour uit Fini ANTAINE	N° lot + DLC	
	Flux: Bon de re Produit: Produ Dépôt: QUAR	Quantité UV etour uit Fini ANTAINE	N° lot + DLC	
Désignation	Flux: Bon de re Produit: Produ Dépôt: QUAR	etour uit Fini ANTAINE	N° lot + DLC	
	Flux: Bon de re Produit: Produ Dépôt: QUAR	etour uit Fini ANTAINE	N° lot + DLC	-
	Flux: Bon de re Produit: Produ Dépôt: QUAR	uit Fini ANTAINE		-
F 	Produit: Produ Dépôt: QUAR	uit Fini ANTAINE		-
	Produit: Produ Dépôt: QUAR	uit Fini ANTAINE		
			- 100 100	
		11.1-		
		_		_
-44 W				
				*
		-		
			*	
Vian Asset de Otse	L DE	Vice Chauffaur	Vice Description	PA Dead 1
Visa Agent de Stoc	жег	Visa Chauffeur	Visa Responsable Qua	nite Produit

Appendix I-7: Factory Exit Form

KIRENE - SIAGRO Avenue Malick SY BP 7020 Dakar Tél: 33 849 56 66

Fax: 33 849 56 65

Bon de Sortie N°: 63/10 GESCOM:

Flux: Mouvement de sortie **Produit: Produit Fini** Dépôt GESCOM: PRODUITS FINIS Utilisateur GESCOM: Abass Ndiave

GROUPE KIRENE

Engageors nous a vivre micux

17/10/2017 Dakar, le

Direction Marketing Communication

Objet: Gratuité Mr Fares

Evenement:

Appro 7ème

17/10/2017 Date Quantités Désignation 10 Eau minérale 0,5 L 1 coca 1 Coca Zero sprite 1 1 Minute Maid Mangue Pomme (33CL) 1 Minute Maid Orange (33CL) 1 Minute Maid Tropical (33CL) 1 Lait Arômatisé Vanille 1 Lait Arômatisé Fraise 1 Lait Arômatisé Chocolat 1 Candy Up Pait Packs mixte 6 4 SIGNATURES

Responsable de Stock

contact téléphone :

Contrôle / DAF

Adresse:

livraison Avant le:

Appendix I-8: Non-Conformity Form

QUARANTAINE Utilisateur: Marière Ndione (I IDENTIFICATION: Lot concerné / Quantité incri N° Ligne/ N° Machine: Date de la NC/ DLUO: Toute information permettant	Destinataires : t u Produit Fini OSITION QUARANTAINE ou MATIERE PREMIERE Matière Première) Pape Dione (Produit Fini) minée : t de bien tracer la zone de la NC :		Version: 3 Date du 26/04/2017 Page: 1/2 Fiche no:
Date: Emetteur: CONSTAT: GESCOM: Flux: Mouvement de transfer Produit: Matière Première ou Dépôt GESCOM: MISE A DISP QUARANTAINE Utilisateur: Marière Ndione (i IDENTIFICATION: Lot concerné / Quantité incrit N° Ligne/ N° Machine: Date de la NC/ DLUO: Toute information permettant	Destinataires : t u Produit Fini OSITION QUARANTAINE ou MATIERE PREMIERE Matière Première) Pape Dione (Produit Fini) minée :		Page: 1/2 Fiche nº:
Date: Emetteur: CONSTAT: GESCOM: Flux: Mouvement de transfer Produit: Matière Première ou Dépôt GESCOM: MISE A DISP QUARANTAINE Utilisateur: Marière Ndione (i IDENTIFICATION: Lot concerné / Quantité incrit N° Ligne/ N° Machine: Date de la NC/ DLUO: Toute information permettant ANALYSE DE LA NO	Destinataires : t u Produit Fini OSITION QUARANTAINE ou MATIERE PREMIERE Matière Première) Pape Dione (Produit Fini) minée :	- QUARANTAINE o	Fiche n°:
Date: Emetteur: CONSTAT: GESCOM: Flux: Mouvement de transfer Produit: Matière Première ou Dépôt GESCOM: MISE A DISP QUARANTAINE Utilisateur: Marière Ndione (i IDENTIFICATION: Lot concerné / Quantité incrit N° Ligne/ N° Machine: Date de la NC/ DLUO: Toute information permettant ANALYSE DE LA NO	Destinataires : t u Produit Fini OSITION QUARANTAINE ou MATIERE PREMIERE Matière Première) Pape Dione (Produit Fini) minée : t de bien tracer la zone de la NC :	- QUARANTAINE o	
Date: Emetteur: CONSTAT: GESCOM: Flux: Mouvement de transfer Produit: Matière Première ou Dépôt GESCOM: MISE A DISP QUARANTAINE Utilisateur: Marière Ndione (i IDENTIFICATION: Lot concerné / Quantité incrit N° Ligne/ N° Machine: Date de la NC/ DLUO: Toute information permettant ANALYSE DE LA NO	Destinataires : t u Produit Fini OSITION QUARANTAINE ou MATIERE PREMIERE Matière Première) Pape Dione (Produit Fini) minée : t de bien tracer la zone de la NC :	- QUARANTAINE o	
Emetteur : CONSTAT : GESCOM: Flux: Mouvement de transfer Produit: Matière Première ou Dépôt GESCOM: MISE A DISP QUARANTAINE Utilisateur: Marière Ndione (i IDENTIFICATION : Lot concerné / Quantité incrit N° Ligne/ N° Machine : Date de la NC/ DLUO : Toute information permettant ANALYSE DE LA NO	t u Produit Fini OSITION QUARANTAINE ou MATIERE PREMIERE : Matière Première) Pape Dione (Produit Fini) minée : t de bien tracer la zone de la NC :	- QUARANTAINE o	ou PRODUITS FINIS
Emetteur : CONSTAT : GESCOM: Flux: Mouvement de transfer Produit: Matière Première ou Dépôt GESCOM: MISE A DISP QUARANTAINE Utilisateur: Marière Ndione (i IDENTIFICATION : Lot concerné / Quantité incrit N° Ligne/ N° Machine : Date de la NC/ DLUO : Toute information permettant ANALYSE DE LA NO	t u Produit Fini OSITION QUARANTAINE ou MATIERE PREMIERE : Matière Première) Pape Dione (Produit Fini) minée : t de bien tracer la zone de la NC :	- QUARANTAINE o	ou PRODUITS FINIS
CONSTAT: GESCOM: Flux: Mouvement de transfer Produit: Matière Première ou Dépôt GESCOM: MISE A DISP QUARANTAINE Utilisateur: Marière Ndione (i IDENTIFICATION: Lot concerné / Quantité incrin N° Ligne/ N° Machine: Date de la NC/ DLUO: Toute information permettant ANALYSE DE LA NO	t u Produit Fini OSITION QUARANTAINE ou MATIERE PREMIERE : Matière Première) Pape Dione (Produit Fini) minée : t de bien tracer la zone de la NC :	- QUARANTAINE o	ou PRODUITS FINIS
GESCOM: Flux: Mouvement de transfer Produit: Matière Première ou Dépôt GESCOM: MISE A DISP QUARANTAINE Utilisateur: Marière Ndione (I IDENTIFICATION: Lot concerné / Quantité incri N° Ligne/ N° Machine: Date de la NC/ DLUO: Toute information permettant ANALYSE DE LA NO	I Produit Fini OSITION QUARANTAINE ou MATIERE PREMIERE - Matière Première) Pape Dione (Produit Fini) minée : t de bien tracer la zone de la NC :	- QUARANTAINE o	ou PRODUITS FINIS
Produit: Matière Première ou Dépôt GESCOM: MISE A DISP QUARANTAINE Utilisateur: Marière Ndione (i IDENTIFICATION: Lot concerné / Quantité incris N° Ligne/ N° Machine: Date de la NC/ DLUO: Toute information permettant	I Produit Fini OSITION QUARANTAINE ou MATIERE PREMIERE - Matière Première) Pape Dione (Produit Fini) minée : t de bien tracer la zone de la NC :	- QUARANTAINE o	ou PRODUITS FINIS
Lot concerné / Quantité incrin N° Ligne/ N° Machine : Date de la NC/ DLUO : Toute information permettant ANALYSE DE LA NO	t de bien tracer la zone de la NC :		
N° Ligne/ N° Machine : Date de la NC/ DLUO : Toute information permettant ANALYSE DE LA NO	t de bien tracer la zone de la NC :		
Date de la NC/ DLUO : Toute information permettant ANALYSE DE LA NO			
Toute information permettant ANALYSE DE LA NO			
Toute information permettant ANALYSE DE LA NO			
ANALYSE DE LA NO			
N/C ☐ Mineure ☐ Majeure ☐ Critique	ON CONFORMITE (A Remplir collégialemen ☐ Qualité ☐ Environnement ☐ Autre		e atelier et contrôle qualit act sur la SDA=
RAPPEL = CCP	P = Point critique		
PRPO	o = Point essentiel pour la maîtrise d'un danger		
PRP	= Bonnes pratiques de fabrication, d'hygiène		
MESURES PRISES :			
Séparation - lieu :			
Correction (Action visant à élin * Process =	niner la non conformité détectée) :		
- Control of the Cont			
* Produit =			

Appendix I-9: Declassification Form

GROUPE KIRÈNE Engageoris-nous à vivre mieux SIAGRO	Matièr	FICHE DE DECLASSEMNT Matières Premières et produits Finis Type de document : Enregistrement				
Date :	rence :					
NOM PRODUIT	Quantité incrimin	ée Exp	Lot	Natu	re Déviation	
				-3		
		*				
		-				
.ee	-	07.5		w	-	
7				**************************************		
	/					
Visa Resp Qualité Prod	Visa Resp QHSE	Visa Resp Logistic	lue	Visa Co	ntrôle Gestion	
	 					
GES	сом:					