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RSB Standard for Traceability of RSB Certified Material (Chain of Custody)

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Contact Detail: RSB - Roundtable on Sustainable Biomaterials

International Environment House 2

7-9 Chemin de Balxert

CH- 1196 Chatelaine (Geneva)

Switzerland

web: <http://www.rsb.org>

email: info@rsb.org

Introduction

All RSB Participating Operators acquiring, handling or forwarding RSB Certified Material are required to implement a chain of custody system in line with this standard.

Under this standard, RSB-certified biomass and derived biofuels and biomaterials shall be tracked from the farm to the final user, each time they pass through an internal processing step or change ownership (i.e. custody) along the supply chain (or “chain of custody”). A supply chain includes each stage of processing, conversion, transformation, manufacturing, trading and distribution where progress to the next stage involves a change of legal and/or physical control. Supply chains can begin at the stage of feedstock production, or in the case of waste and residue-based chains, will start after the Collection Point onward (See RSB-STD-01-010 RSB Standard for certification of biofuels based on end-of-life products, residues and by-products for more details).

As an RSB Participating Operator legally and/or physically controlling RSB certified biomass, biofuels or biomaterials along the supply chain, you are required to establish effective and transparent chain of custody tracking systems, which will be verified by your certification body during the audit process. This verification step reduces fraud.

RSB provides (5) different options¹ for the chain of custody system that shall be put in place: Identity Preserved, Product Segregation, Mass Balance, Content Ratio Accounting and Book & Claim.

Information about the chain of custody systems, as well as their requirements for traceability can be found in this standard.

Note: As of February 1, 2014, the System Operating Entity (SOE) is the RSB Secretariat.

Main changes between Version 2.0 and Version 3.0

- a. This document is the result of a merger between 5 standards (RSB-STD-20-001, RSB-STD-20-002, RSB-STD-20-003, RSB STD-20-004 and RSB-STD-20-005). All the generic chain-of-custody requirements and specific requirements for every CoC model (Identity preserved, segregation, mass balance and book and claim) are now integrated into a single standard.
- b. This standard was entirely re-written using the “plain English” approach, which aims to make the content clearer
- c. The word RSB Certified Material is used in replacement of RSB Compliant Product and other similar terms.
- d. A new “Book and Claim” system is introduced (under development).
- e. Additional information was added on the management of mass balance systems and Product Transfer Documentation (Annex I).
- f. The numbering was updated.

¹ See Annex III for visual representations

Main changes between Version 3.0 and Version 3.1

- a. The requirements for product information were clarified and split among three subsections corresponding to the acquisition, handling and forwarding of certified material.
- b. The term “product information” is now used instead of “product documentation”, as this would allow information to be recorded through other means than written documents.
- c. The term “legally binding agreement” is replaced by “contractual agreement” for clarity.
- d. The required product information was simplified (Annex I)
- e. Minor language improvements were made and the numbering was updated

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A. The aim of this standard

The aim of this standard is to ensure that Participating Operators put in place a robust and transparent chain of custody system that provides traceability for the *RSB Certified Material* (e.g. biomass, chemical intermediaries, biofuel, etc.) acquired from and/or delivered to other operators in the supply chain.

This standard also aims to ensure that sustainability claims based on compliance with RSB standards only accompany material that is acquired, handled, and forwarded by RSB-certified operators according to the requirements included in this standard.

B. What this standard covers

This standard applies to any RSB-certified operator acquiring, handling and/or forwarding *RSB Certified Material*.

The first section describes general requirements you shall meet when putting in place chain of custody systems. It is followed by specific requirements for the acquisition, handling and forwarding of certified material.

C. Version and date

Version 3.1 of this RSB Standard for Traceability of RSB Certified Material (Chain of Custody) shall be effective on 28 November 2014.

D. Note on using this standard

All parts of this standard are considered to be normative, including its aim, scope, effective date, notes on its use, references, terms and definitions, requirements and annexes, unless we say otherwise. When putting this standard in place you shall make sure that you meet all of the requirements specified in this standard, and any other measures necessary to achieve its aim.

IMPORTANT: The “Content Ratio Accounting” and “Book and Claim” systems described in this standard (F.3.5 and F3.6) cannot be used to track RSB Certified Material intended for trade and distribution in the European Union within the scope of the Renewable Energy Directive (2009/28/EC) and Fuel Quality Directive (98/70/EC).

E. Terms and definitions

For the purposes of this International Standard, the terms and definitions given in RSB-DOC-10-002 RSB Glossary of Terms shall apply. The following terms are particularly important:

Acquisition refers to the moment you take legal and physical control of an RSB Certified Material. It can be through the purchase from an external supplier (e.g. a biodiesel plant buying vegetable oil) or through your own primary production of biomass (e.g. a sugarcane

plantation producing sugarcane).

Collection Point is used in the specific context of Municipal Solid Waste and Used Cooking Oil (See RSB-STD-01-010) and refers to the latest step in the value chain where Municipal Solid Waste or Used Cooking Oil is stored/aggregated before being processed/transformed/treated for the purpose of producing biofuel.

EU RED Certified Material refers to biomass or biofuels certified by any voluntary scheme recognized by the European Commission other than RSB. *EU RED Certified Material* may be handled by an RSB certified Participating Operator and forwarded with an “EU RED Compliant” on-product claim, following RSB EU RED Procedure on Communication and Claims (RSB-PRO-11-001-50-001).

Forwarding of material refers to the transfer of legal control of RSB Certified Material to the next operator in the supply chain.

Handling of material refers to the storage, processing and transport of RSB Certified Material within the operations included in your scope of certification (e.g. the transformation of municipal solid waste into gas through pyrolysis or a warehouse/trader storing bioethanol).

Note: Several of the above steps may be included in your scope of certification (e.g. a company may acquire, handle, and forward RSB Certified Material)

RSB Certified Material refers to biomass, biofuels or biomaterials certified to the global RSB Principles & Criteria and other relevant RSB standards and procedures. For more information about RSB claims, please see RSB-PRO-50-001 (RSB Procedure on Communication and Claims).

RSB EU RED Certified Material refers to biomass or biofuels certified to the Consolidated RSB EU RED Principles & Criteria (RSB-STD-01-001) and other relevant RSB EU RED standards and procedures. For more information about RSB EU RED claims, please see RSB-PRO-11-001-50-001 (Consolidated RSB EU RED Procedure on Communication and Claims).

F. Requirements

1. General Requirements

1. 1. You shall put in place a chain of custody system to track *RSB* Certified Material through the processes included in your scope of certification. This system shall meet all the general requirements of this section and the applicable specific requirements (Section F.2, F.3 and F.4) described in this standard.
1. 2. You shall appoint a management representative as having overall responsibility and authority for putting in place and monitoring the chain of custody system.
1. 3. You shall identify and document the employees or third parties involved in your chain of custody system, in particular those in charge of the acquisition, handling and forwarding (and verification of the product information) of *RSB* Certified Material.
1. 4. You shall provide involved employees with appropriate training and make sure they have the needed competences, knowledge and experience to put your chain of custody system in place.
1. 5. You shall have all necessary infrastructures and operating procedures in place to effectively operate the chain of custody system and ensure that *RSB* Certified Material can be tracked continuously without interruption through all internal processing steps between their acquisition and forwarding to your clients.
1. 6. You shall document all sites where *RSB* Certified Material is acquired, handled and forwarded and where internal processing steps occur (See also Section F.1.3 of RSB-STD-30-001 Standard for Operators taking part in RSB certification systems), with additional requirements for site records as follows:
 1. 6. 1. **Farms, Plantations or Forestry:**
 - List of fields, production area (ha or acres), status (in production/not in production), biomass type, chain of custody model employed
 - List of all recipients of sustainable biomass (e.g. collection points, storage facilities, warehouse, traders), including their address and contracts
 - Additional sites used by the operator but owned by third parties.
 1. 6. 2. **Industrial units (mills, feedstock processing, biofuel/biomaterial production, refinery, blending facility etc):**
 - List of sites, status (in production/not in production), processing pathway, product type, production volumes information, chain of

custody model employed;

- List of all recipients of sustainable biofuel/biomaterial (e.g. collection points, storage facilities, warehouse, traders), including their address and contracts
- Additional sites used by the operator but owned by third parties

1. 6. 3. **Collection Points, Storage Facilities, Warehouse and Traders**

- List of all suppliers of sustainable biomass, and copy of their valid certificates
- List of all collection points, including name and address
- Record of mass balance calculation (if relevant²)
- If you are not the legal the owner of the storage site, a written contract between your organization and the legal owner of the site will be required to forward products with an RSB compliance claim included with the product information

1. 7. You shall keep these records for 5 years.

1. 8. Greenhouse gas (GHG) emissions for transport shall be added, either by a) the Participating Operator forwarding *RSB Certified Material*, prior to its transport; b) the Participating Operator responsible for transport of the *RSB Certified Material*; or c) the Participating Operator acquiring *RSB Certified Material*, after its transport. GHG emissions for transport can be calculated by using disaggregated default values for transport³ or by using the RSB GHG Calculator or accepted alternatives.

1. 9. You shall make sure that sufficient details to identify the material are included in the product information attached to every batch of *RSB Certified Material* that you acquire, handle or forward. (*Note: "Book & Claim" system has its own set of requirements - See Section 2.4*)

Full details of product information requirements/guidelines for each operator type are available in Annex I.

Note: additional requirements for documentation may apply in certain countries (e.g NABISY system in Germany). Please contact the RSB Secretariat for more details.

1. 10. If you are implementing more than one chain of custody system in your operation(s) (e.g. one of your clients require physically segregated batches of products while others use mass balance), you shall keep a separate

² Participating Operators implementing Identity Preserved or Segregation models are not required to comply with this requirement.

³ EU RED 2008/29/EC Annex V

accounting for groups of product acquired through each chain of custody system used. You may group various products that share similar characteristics in terms of product type, quality and production process into product groups. (*Note: "Book & Claim" system has its own set of requirements - See Section 2.4*)

1. 11. If you are simultaneously acquiring, producing, processing, handling or forwarding *RSB Certified Material*, *RSB EU RED Certified Material* and/or *EU RED Certified Material* (See RSB-PRO-50-001 and RSB-PRO-11-001-50-001 for more details on the different allowed on-product claims), you shall keep a separate accounting for each groups of product. Specific provisions for the physical mixing of different groups of product are detailed in Section F.3.
1. 12. You shall provide any product information required in this standard upon request to the System Operating Entity (SOE), the Accreditation Body and/or your Certification Body.
1. 13. You shall notify your Certification Body and the System Operating Entity (SOE) about any modification in your chain of custody system.

2. Specific Requirements for Acquiring *RSB Certified Material*

2. 1. Any and all acquisition of *RSB Certified Material* shall be based on a contractual agreement between you and your supplier. *Note: this includes purchases made on spot markets.*
2. 2. You shall make sure that the product information described in Annex I for incoming *RSB Certified Material*, based on the information is provided by your supplier (e.g. supplier invoice, transport documentation, other supporting documentation) and keep records of this information.

3. Specific Requirements for Handling *RSB Certified Material*

3. 1. You shall keep records of the product information described in Annex I for handling *RSB Certified Material* in process.
3. 2. For operators using an **Identity Preserved** chain of custody system:
 3. 2. 1. Document each batch of *RSB Certified Material* in each internal processing step included in your certification scope separately.
 3. 2. 2. Do not mix a batch of *RSB Certified Material* tracked under this system with a batch of *RSB Certified Material* from a different place of origin or a batch of products that are not *RSB Certified*.

3. 2. 3. It will be necessary to inform your Certification Body and change your tracking model to “Product Segregation”,
3. 2. 3. 1. If a “batch” (See RSB Glossary of Terms. Ref: RSB-STD-DOC-10-002⁴) of RSB Certified Material is physically mixed with a batch of RSB Certified Material from a different place of origin; or
3. 2. 3. 2. In cases where the documentation associated with a batch of RSB Certified Material was not kept separate from another batch of RSB Certified Material.
3. 2. 4. It will be necessary to inform your Certification Body and change your tracking model to “Mass Balance” or “Content Ratio Accounting” if a batch of RSB Certified Material is physically mixed with a batch of products that are not RSB certified in an internal processing step.
3. 3. For operators using a **Product Segregation** chain of custody system:
 3. 3. 1. Document RSB Certified Material separately from products that are not RSB certified.
 3. 3. 2. Keep RSB Certified Material physically separate from products that are not RSB certified. *Note: you can mix different batches of RSB Certified material.*
 3. 3. 3. Calculate the average greenhouse gas (GHG) intensity of the mix when RSB Certified Materials with different GHG intensities are mixed together⁵.
Example: 1'000 Liters of RSB certified bioethanol with a 60% GHG savings mixed with 1'000 Liters of RSB certified bioethanol with a 50% GHG savings in the same proportion will make 2'000 Liters of RSB certified bioethanol with an average 55% GHG savings.
 3. 3. 4. Do not use the “identity of product preserved” tracking model in any internal processing steps if the “product segregation” tracking model was used anywhere in the preceding steps of the supply chain.
 3. 3. 5. It will be necessary to inform your Certification Body and change your tracking model to “Mass Balance” or “Content Ratio Accounting” if a batch of RSB Certified Material is physically mixed with a batch of products that are not RSB certified in an internal processing step.

⁴ The Reference of the RSB Glossary will be RSB-STD-10-001 in Version 3.0 (to be released in 2015)

⁵ In the EU RED version of this standard, the lowest GHG saving value in the mix shall be applied to the entire mix.

3. 4. For operators using a **Mass Balance** chain of custody system:
 3. 4. 1. If several operational sites are included in the scope of certification, each operational site shall maintain its own Mass Balance accounting system.
 3. 4. 2. Record *RSB* Certified Material separately from *RSB* EU RED/EU RED certified Material.
 3. 4. 3. Record *RSB* Certified Material separately from materials that are not certified to *RSB*.
 3. 4. 4. Record the compliance claim associated with each batch of *RSB* Certified Material
 3. 4. 5. You may physically mix *RSB* Certified Material with products that are not *RSB* certified.
 3. 4. 6. When *RSB* Certified Materials with different GHG intensities are mixed together, calculate the average greenhouse gas (GHG) intensity of the mix⁶.

Example: 1'000 Liters of RSB certified bioethanol with a 60% GHG savings mixed with 1'000 Liters of RSB certified bioethanol with a 50% GHG savings in the same proportion will make 2'000 Liters of RSB certified bioethanol with an average 55% GHG savings.
 3. 4. 7. Monitor the balance of *RSB* Certified Material withdrawn from and added to your mass balance system, taking into account the conversion factor. The conversion factor can be a default value (from EU or Member State source) or calculated as:
$$\text{Conversion factor (\%)} = \frac{\text{Amt. Output}}{\text{Amt. Input}} * 100$$
 3. 4. 8. Reconciliation (eg. monthly) of *RSB* certified inputs and outputs shall be available, including control of purchases and sales of the product.
 3. 4. 9. The balance shall be monitored. You may use either of the following accounting methods:
 3. 4. 9. 1. Continuous: Deficits of *RSB* Certified Material shall not occur; i.e. you shall not forward or deliver greater amount of *RSB* Certified Material than you acquire or produce;

⁶ In the EU RED version of this standard, the lowest GHG saving value in the mix shall be applied to the entire mix.

3. 4. 9. 2. Fixed: Deficits of *RSB* Certified Material may occur, as long as balance is achieved over a fixed period of time (max. 3 months); i.e. You may forward or deliver greater amount of *RSB* Certified Material than you acquire or produce as long as the total amount of forwarded/delivered *RSB* Certified Material over (at max) 3 months is consistent with the amount of acquired/produced *RSB* Certified Material over the same period, considering the conversion factor.
3. 4. 10. A positive balance of *RSB* Certified Material may be reported into the next reporting period until your positive balance is expended.
3. 4. 11. Do not use the “identity of product preserved” or “segregation” tracking model in any internal processing steps if the “mass balance” tracking model was used anywhere in the preceding steps of the supply chain.
3. 5. For operators using a **Content Ratio Accounting** chain of custody system:
Important Note: Content Ratio Accounting cannot be used for biofuel products traded and distributed in the European Union within the scope of the Renewable Energy Directive (2009/28/EC) and Fuel Quality Directive (98/70/EC).
3. 5. 1. Document *RSB* Certified Material separately from materials that are not *RSB* certified.
3. 5. 2. Document the compliance claim associated with each batch of *RSB* Certified Material
3. 5. 3. You may physically mix *RSB* Certified Material with products that are not *RSB* certified.
3. 5. 4. The Greenhouse Gas intensity of a mix of *RSB* Certified Material from different origins shall be calculated as the average value in proportion to each volume included in the mix.
3. 5. 5. Continuously monitor the content ratio of *RSB* Certified Material withdrawn from and added to your content ratio accounting system, taking into account the conversion factor. The conversion factor can be calculated as:
$$\text{Conversion factor (\%)} = \frac{\text{Amt. Output}}{\text{Amt. Input}} * 100$$
3. 5. 6. Ensure that on-product claims attached to *RSB* Certified Material mention the actual content ratio at the time of delivering.

3. 5. 7. Do not use the “identity of product preserved” or “segregation” tracking model in any internal processing steps if the “content ratio” tracking model was used anywhere in the preceding steps of the supply chain.
3. 6. **Book & Claim** (Under development)
3. 6. 1. You shall follow the instructions described in the “RSB Book & Claim” manual [Reference to be added].
3. 6. 2. You may physically mix *RSB* Certified Material with products that are not RSB certified.
3. 6. 3. You are **not required** to document *RSB* Certified Material acquired under the “Book and Claim” model separately from materials that are not RSB certified.
3. 6. 4. “Book” and “Claim” steps:
 3. 6. 4. 1. “Book” means the generation of certificates that correspond to the exact quantity of *RSB* Certified Material acquired or produced (taking into account conversion factors)
 3. 6. 4. 2. “Claim” means that the certificate has been bought by a manufacturer or retailer of materials looking for sustainable materials, who do not physically acquire the corresponding material. Once the virtual certificate has been claimed, the corresponding amount of material must then be physically sold as non *RSB* certified.
3. 6. 5. If you are using several chains of custody models for different batches of *RSB* Certified Material, you shall put in place all necessary safeguards to avoid any double counting of *RSB* Certified Material.

4. Specific Requirements for Forwarding *RSB* Certified Material

4. 1. Any and all forwarding of *RSB* Certified Material shall be based on a **contractual agreement** between you and your customer. *Note: this includes purchases made on spot markets.*
4. 2. You shall include Product Transfer Documentation (PTD) with outgoing *RSB* Certified Material. The PTD shall include the product information described in Annex I. You may use regular sales documentation (invoices, bill of lading, etc.) as PTD as long as it includes the product information described in Annex I.
4. 3. You shall keep records of all product transfer information for a period of five years.

Annex I – Summary of required product information to be recorded by the Participating Operator for *RSB* Certified Material at different steps

A. General Information

For incoming *RSB* Certified Material (“acquisition”):

- Description of the incoming material, including technical specification, if available
- Quantity of certified material(s)
- Date of acquisition and (if different from the date of acquisition) date of entry in the participating operator’s chain of custody tracking and management systems
- Location of the site where *RSB* Certified Material is acquired
- Name and address of supplier(s)
- Name and address of the last production/processing site
- If the previous production/processing site is managed by an external third party, the name and address of this external third party
- *RSB* Short claim (see RSB-PRO-50-001)
- Greenhouse Gas Intensity

For *RSB* Certified Material in process within your scope of certification (“handling”), the operator should keep the following records:

- Identification and description of the process
- Name and address of the site(s) where the production steps occurs
- Conversion factor(s)⁷ used in processing of each group of products (where relevant)

For outgoing *RSB* Certified Material (“forwarding”);

- Description of the product, including the technical specification, if available
- Quantity of certified product(s)
- Date of shipment
- Name and address of customer(s) and delivery site
- Name and address of production or storage site(s) and site from which the product is forwarded⁸

⁷ Conversion Factors are used to calculate the amount of outcomes based on the initial amount of material entering the processing step. They are expressed as a ratio of Liters of outcomes per Liter of entering material, Liters per Tons, m3 per Tons etc.

⁸ Last internal processing step where the *RSB*/*RSB* EU RED/*EU* RED compliant product is handled.

- If the site from which the product is forwarded is managed by an external third party, the name and address of this external third party
- Country of origin
- Unique number of the delivery note (e.g. Bill of lading, or invoice #)
- ID number of batch
- valid RSB Certificate number, Certification Body and Chain of custody model employed
- *RSB Short claim* (see RSB-PRO-50-001)
- Greenhouse Gas Intensity (calculated with the RSB GHG Calculator)
- Statement whether the GHG value contains transport emissions. If not, list the transport type and transport distance (in km)

B. In addition to the requirements listed in A, in case of industrial units (mills, feedstock processing, biofuel production, refinery, blending facility the following data should be also informed by the operator to its customer:

- If biomass or biofuel is being delivered to a retailer, an electricity, heat or co-generation plant, also include the following in accordance with the GHG Emissions Calculation Methodology described in RSB-STD-01-003-01 (RSB GHG Methodology).
- GHG emissions value in g CO₂ equivalent/MJ
- Fossil fuel comparator in g CO₂ eq/MJ (dependent on end use)
- The GHG emissions savings (%)

Annex II – Visual representations of 4 of the chain of custody system options (Book & Claim not shown)

Identity Preserved

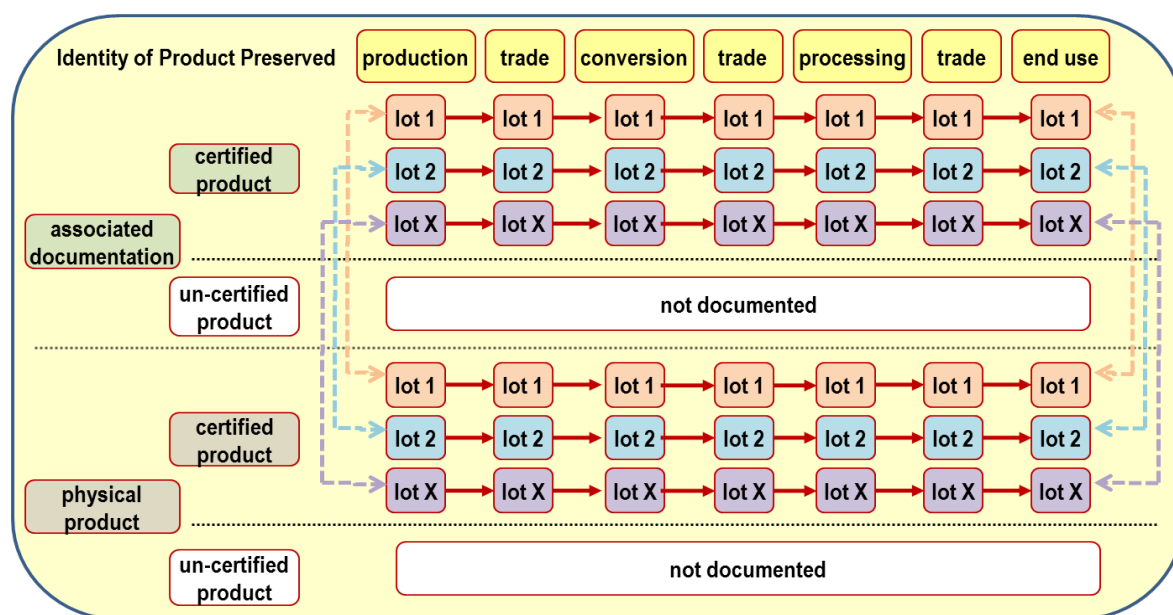


Figure 1: All product lots (batches) are kept separately. E.g. a batch of RSB certified feedstock from Farm A cannot be mixed with a batch of RSB certified feedstock from Farm B.

Product Segregation

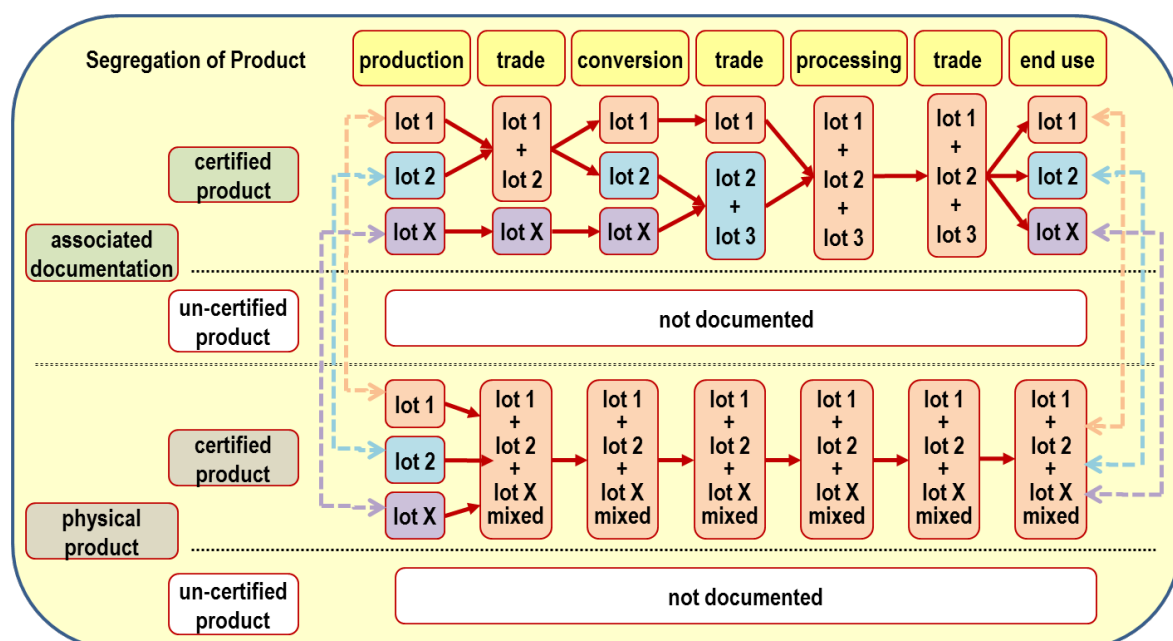


Figure 2: Certified products are kept separate from non-certified products. E.g. a batch of RSB certified biodiesel from Unit A can be mixed with a batch of RSB certified biodiesel from Unit B, but not with a batch of non-RSB certified biodiesel from Unit C.

Mass Balance

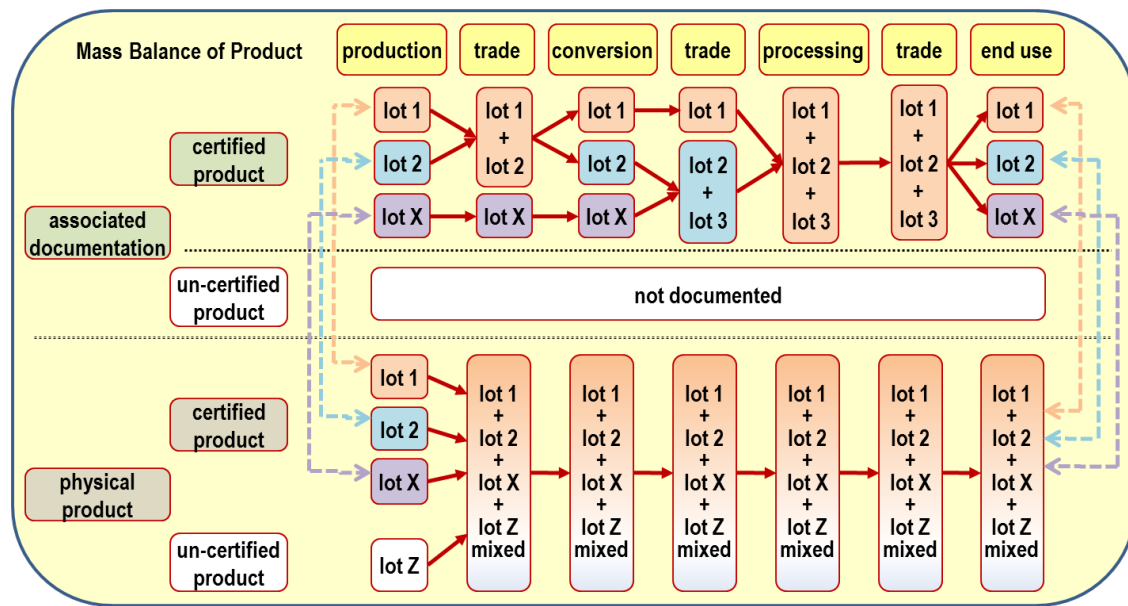


Figure 3: All products may be mixed, as long as documentation remains separate. E.g. a batch of RSB certified bioethanol from Unit A can be mixed with a batch of non-RSB certified biodiesel from Unit B, but they are sold separately according to the mass balance of the system

Content Ratio Accounting

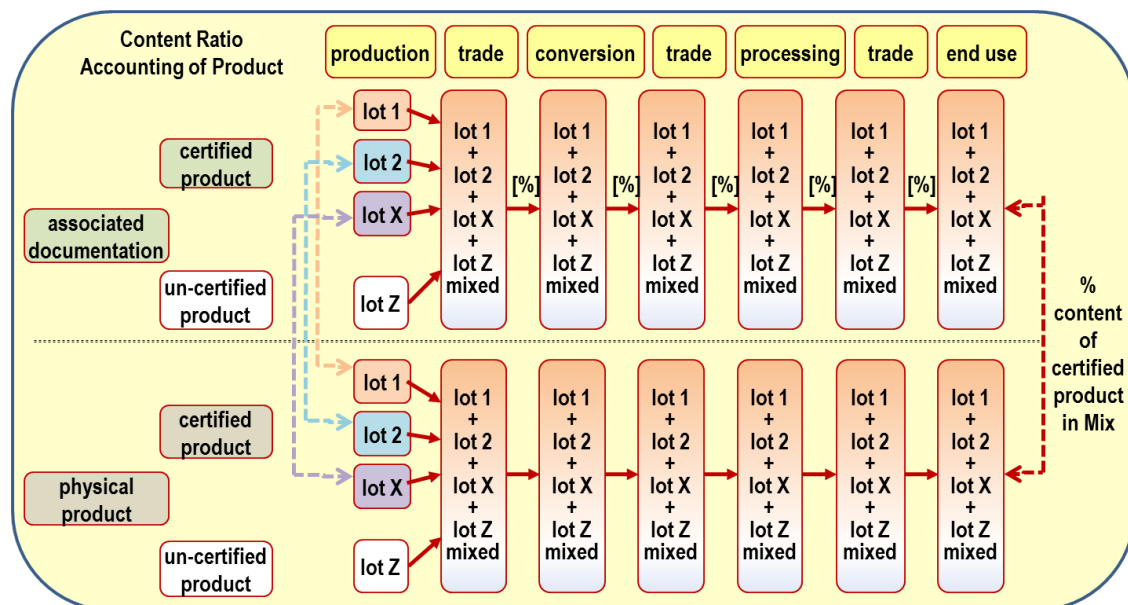


Figure 4: All products may be mixed. Actual content ratio to be indicated on each batch of product. E.g. a batch of RSB certified bioethanol from Unit A can be mixed with a batch of non-RSB certified biodiesel from Unit B. They are sold together with the content ratio of RSB-certified material in the mix attached to each batch of product.