



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MOBILITY AND TRANSPORT
SRD - Shared Resource Directorate
SRD.2 - Information management and systems

Material Processing

(Liquid fuel value chain)

Summary of changes:

Version	Date	Created by	Short Description of Changes
1.0		UDB Team	1 st Draft version of the document
1.1		UDB Team	Improvements and changes from the first round of contributions (VS)
1.2		UDB Team	Improvements and changes from the last round – addition of Material Processing functions
1.3		UDB Team	Additional function added: Conversion POS
1.4		UDB Team	Updated Rules for GHG in POS Data section

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1. Purpose of Material Processing:

Material Processing is available for EO Lead User / EO User.

An Economic Operator's must be able to add the material conversion details in UDB.

The option to capture the Conversion processing must be available ~~on~~ when the EO Organisation status is ACTIVE. The Material Processing captures the Input /Output materials and their Sustainability details.

When to Material Processing

When an Economic Operator process the raw materials into another material like intermediate products or fuels

When an Economic Operator would like to convert the material quantity & units

Who could do the Material Processing?

Economic Operators involved in processing of materials and is certified to do so. i.e. the Certificate should indicate the relevant scope of activity.

What are the pre-conditions for Material Processing?

- Input materials are available in the Economic Operators stock account of a particular site
- Economic Operator should have a valid certificate on the date of material processing
- The emission footprint for the input material was completed

When can the Economic Operator register?

- After the pre-conditions are met, access to the initial stock registration feature is then enabled.
- How will the Economic Operator know it is enabled? This shall be communicated by the Scheme for the Economic Operator to begin the initial registration of stock.
- There is some flexibility allowed for choosing the date for the initial stock registration. It can be the date on which the net Mass-balance shall be reached or other date.

What & which period of consignments can the Economic Operator register as Material Processing

This depends on the Economic Operators activity. i.e. when a economic operator uses the material processing feature, the outputs produce should be evidenced (that would be used for auditing) in terms of the quantity converted.

Can Material Processing be edited after creation? If the POS Status is set to 'NO' we should be able to edit the date of processing, Input material quantity, output material quantity and wastes but we cannot edit input and output material. If "YES" is selected: indicates Pos's data is complete. This will set the Pos data to complete, and it will no longer be editable.

2. How to use Material Processing

Formátované: Nadpis 2

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Add Material Process

Actor(s): - EO LeadUser, EO User

Material Processing is available for EO Lead User / EO User.

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The option to capture the Conversion processing must be available on when the EO Organisation status is ACTIVE.

The Material Processing captures the Input /Output materials and their Sustainability details.



Fig 1. Material Processing menu option

When the section opens the User can then add the Material Processing details by clicking on the 'Add Material Process' button.



Fig 2. Add Material Process option.

Once the 'Add Material Process' area opens the user then fills in the details. See figure below.



After selecting the input material user should be able to see the “Show available metadata” button in input material section.

Click on “Show available metadata” button.



Show available metadata

In this section user should be able to see the material name, material code, country of origin of raw material, method type, emission details, scheme origin, certificate of origin, unit, support type, point of origin POS and consignment POS from the given stocks details.

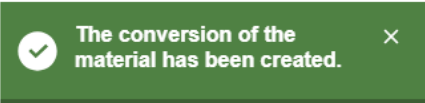
Click on the ‘checkbox’ in the Available material metadata user able to see the conversion quantities.

Enter the required quantity for input and output material.

Conversion factor is automatically determined based on the output quantity and input quantity.

The screenshot shows a multi-step web form. The top section contains several tabs and input fields. Below this is a table with columns for 'Material Name', 'Material Code', 'Country of origin', 'Conversion Factor (from CO2e)', 'Method type', 'Quantity of origin', 'Unit', and 'Conversion CO2e'. A 'Save & Next' button is visible at the bottom right of the form.

Click on the 'Save&next' button, User should be able to see the green message stating: The conversion of the material has been created.



After clicking save and next user navigated to the Proof of sustainability screen
 Proof of sustainability (POS ID), Initial stock (INS ID) and country of origin is prepopulated

The below mandatory field will be displayed and must be filled in the order of appearance:

- Method type

User should be able to fill only one method type from the dropdown list for the conversion shown below

A dropdown menu titled "Method type" with a search icon. The menu is open, showing several options: "Disaggregated default value", "Disaggregated default value & NUTS2", "Disaggregated default value & Actual value", "Total default value", "Disaggregated default value", and "ACTUAL VALUE". The "Disaggregated default value" option is currently selected and highlighted in blue.

After filling the method type and GHG Emissions and GHG Reductions user able to see the Total GHG is automatically calculated.

Fig 3.1. 'Add Material Process POS' Section

By save the POS without E fields user should be able to see the screen below

E fields blank

Pos Data Completeness

*If "YES" is selected: indicates Pos's data is complete. This will set the Pos data to complete, and it will no longer be editable.

User able to see the screen below:



POS status -YES

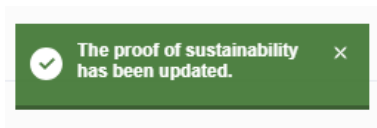
*If "NO" is selected: indicates Pos's data is not complete. This will set the Pos data to incomplete but will still be editable. However, the stock cannot be used in a transaction until the Pos data is complete.



POS status -NO

Set the POS to completed status (by selecting "YES")

By clicking on the save button user able to see 'The proof of sustainability has been updated'



Once the details are saved, user will be navigated to the Home / Transactions / Manage Material Processing page . Material Processing ID is generated automatically for our Created Details

User can search the material processing through any valid details as shown in the below image :



User should now be able to view and edit the processed material.

Once saved the Material Process is Created on the system. The fields details are explained in the table below:

Field Name	Description
Economic Operator	The Economic Operator name (autofilled and non-editable)
Certificate ID	The seller's registered certificates – dropdown list (Only one can be selected per material processing)
Site	The location where the materials are held/processed. Dropdown list. The User will only be able to select one site per material processing. *Options will only be from the sites listed in the registered certificate linked to the EO.
Scope	The scopes related to sites
Date of Processing	Enter the Process Date. The date of processing must be in the range of the certificate validity. The user can also add the Time of processing. If not added, it is considered as 00:00.
Process ID	Enter the Process ID. This can be an identifier assigned by the Economic Operator and is not mandatory.
Input Material	The materials held at the site (Maximum 10 can be selected)
Output Material	The materials are held/processed shown in Dropdown list (Maximum 1 can be selected)
Wastes	The materials are held/processed shown in Dropdown list (Maximum 5 Wastes can be selected)
Quantity	The quantity of materials
Unit	The standard against which the quantity is measured.

	<p>For Raw Materials (Tonnes, Litres, Gallons)</p> <p>For Fuels (Cubic meters at 15°C, Litres at 15°C, Tonnes)</p>
Conversion Factor	Conversion factor is automatically determined based on the output quantity and input quantity.
Pos Data Completeness	<p>Dropdown list (YES / NO).</p> <p>*If "YES" is selected: indicates Pos's data is complete. This will set the Pos data to complete, and it will no longer be editable.</p> <p>*If "NO" is selected: indicates Pos's data is not complete. This will set the Pos data to incomplete but will still be editable. However, the stock cannot be used in a transaction until the Pos data is complete.</p>
Pos Data	<p>Method Type:</p> <ul style="list-style-type: none"> • Total default value – from any method to TDV <ul style="list-style-type: none"> if TDV and Fuel=2 - calculate the value of the total GHG based on the TDV formula if TDV and Fuel! =2 - leave the total GHG field blank, editable and if there is no update giveFor Fuel GHG Emissions E-Fields -EP and ETD values are auto calculated and GHG Reductions is greyed out based on the method type chosen TDV from ANNEX_V_FUEL_TDV_DDV table • Disaggregated default value – <ul style="list-style-type: none"> Three E Reductions fields should be greyed out for DDV <ul style="list-style-type: none"> if Fuel=2 - to map values from relevant table- if Fuel! =2 - leave all fields blank, editable If not, all E fields are updated, please give the warning message: 'Some E fields are blank.' • For Fuel GHG Emissions E-Fields -EP and ETD <ul style="list-style-type: none"> values are auto calculated and GHG Reductions is greyed out based on the method type chosen DDV from ANNEX_V_FUEL_TDV_DDV table • Actual value – leave all fields blank, editable <ul style="list-style-type: none"> If not, all E fields are updated, please give the warning message: 'Some E fields are blank.' Once the update is done (corresponding E values) we save in POS and MB tables for each individual Pos. For Raw material if method type AV E-fields values all are editable

	<ul style="list-style-type: none"> • Disaggregated default value & Actual Value – for the EEC drop down list to change values to DDV, AV (in case it was NUTS2/DDV) if the choice DDV and Fuel=2 - to map values from relevant table and we keep editable if the choice DDV and Fuel!=2 - leave all fields blank, editable if the choice AV leave all fields blank, editable <p>once it is saved if there are not all E fields are updated, please give the warning message: 'Some E fields are blank.'</p> <ul style="list-style-type: none"> • Disaggregated default value & NUTS2 we put a drop-down list next to EEC field (with DDV and NUTS2 options) if the choice for EEC field is NUTS2. <p>1. Once the NUTS2 option is chosen to check the relevant input material and country based on the materials allowed in the NUTS2 table. If not among defined Raw Materials, please show a warning message: 'The NUTS2 value isn't defined for the input material/country'.</p> <ul style="list-style-type: none"> • if for EEC field it is DDV and Fuel=2 - to map EEC value from relevant table if the choice DDV and Fuel!=2 - leave all fields blank, editable • for other E fields <p>Disaggregated default value & NUTS2 - The Material list is restricted, and values are prefilled based on the country and region selected.</p>
Conversion Pathway	Prepopulated automatically from ANNEX_FUEL_PATHWAY table depending upon the method type

After the Material Processing has been created, a POS is created by the system and several actions can be performed on it such as: viewing, editing of the material processing.

[View Material Processing](#)

Actor(s): - EO Lead User, EO User

To view any of the Material Processing go to: Transactions -> Manage Material Processing Section and click on the 'View' icon.



Fig 4. View Material Processing details.

Edit Material Processing

Actor(s): - EO Lead User, EO User

To edit any of the Material Processing go to: Transactions -> Manage Material Processing Section and click on the 'View' icon. This then opens the 'Edit Material Processing' section.



Fig 5. Edit Material Processing details.

*The PoSs data are editable until a sale is to be made for the consignment or the end of the mass-balance period. A PoSs cannot be editable after the sale transaction is initiated. A correction procedure is to be followed in case of corrections.

View metadata of material processing

Actor(s): - EO Lead User, EO User

To view any of the Material Processing metadata go to: Transactions -> Manage Material Processing Section and click on the 'Click to expand / collapse' icon.

A screenshot of a data table with columns for 'Specification', 'Name', 'Quantity', 'Date', and 'Assignment Pk'. The table contains three rows of data. The first row has 'Name' as 'Sulfuric acid (H2SO4)', 'Quantity' as '100', and 'Date' as '2023-01-01'. The second row has 'Name' as 'Sulfuric acid (H2SO4) - 100%', 'Quantity' as '100', and 'Date' as '2023-01-01'. The third row has 'Name' as 'Sulfuric acid (H2SO4) - 100%' and 'Quantity' as '1'. The table is part of a larger application window with various navigation and status elements at the top.

Fig 5. View metadata Material Processing details.

3. FAQs

Question	Answer
<p>Scope: to be specified? Is it the type of processing (e.g.: Trituration or Esterification)</p>	<p>If the scope of site is meant here, then the scope of materials valid for the site is what is meant. This should also be specified in the certificate & is normally the responsibility of VS.</p> <p>If the scope of an EO is referred to here, then it is as per the definition in the certificate. Please refer to the below link about the possible values of scope of EO.</p> <p>Refer to the wiki page for link</p>
<p>Date of processing: can we group by week or month? NB: We do not have this information in our systems today</p>	<p>Date of processing can be grouped if the emission characteristics for processing within the date range is constant. i.e., The EO may choose to use the last day of the week or month to apply conversion.</p>
<p>Is it possible to automate the implementation with industrial yields? We have the impression that the UDB imposes an entry for the input and one for the output, in fact, the two are correlated and this would avoid an additional operation?</p>	<p>The conversion allows indeed input or output material & quantity. In such case UDB can recognize the yield at site level but not necessarily at each individual step unless those steps are registered on UDB for each processing step / material created. Implementing a standard yield approach would mean further corrections in subsequent stage for rounding off or variations.</p> <p>We understand that there is no standard yield that can be applied throughout the year. Hence this approach is universal for all types of processing. In such cases using a standard yield may not provide accurate information to UDB about the reality to the auditors during audits thereby the reliability of information on UDB.</p>
<p>What is the assignment of POS during an implementation?</p>	<p>A batch of input materials with same emission characteristics when converted to an output material, a new PoSs is generated by UDB. An EO will be informed about the different consignments (unique emission & origin characteristics) that he converted to use them for future trades.</p> <p>The implementation specifics both on online & e-Delivery will be explained in the guidelines.</p>
<p>How to manage downgrades or losses in line?</p>	<p>Losses can be adjusted during conversion process. Alternatively, UDB will provide a feature to adjust losses during mass-balance period.</p>

How to manage transfers between sites?	Transfers between sites for same EO & same certificate will be enabled.
How to manage contract work (when we crush for other actors, or when other actors crush for us with a service contract)	<p>If the crushing activity is executed at the same site and can be uniquely identifiable on UDB as a new material name, then this can be registered on UDB using a trade transaction.</p> <p>In the case where the material name is same after crushing & there is a need to recognize the losses after crushing in terms of quantity then the losses features can be applied.</p>