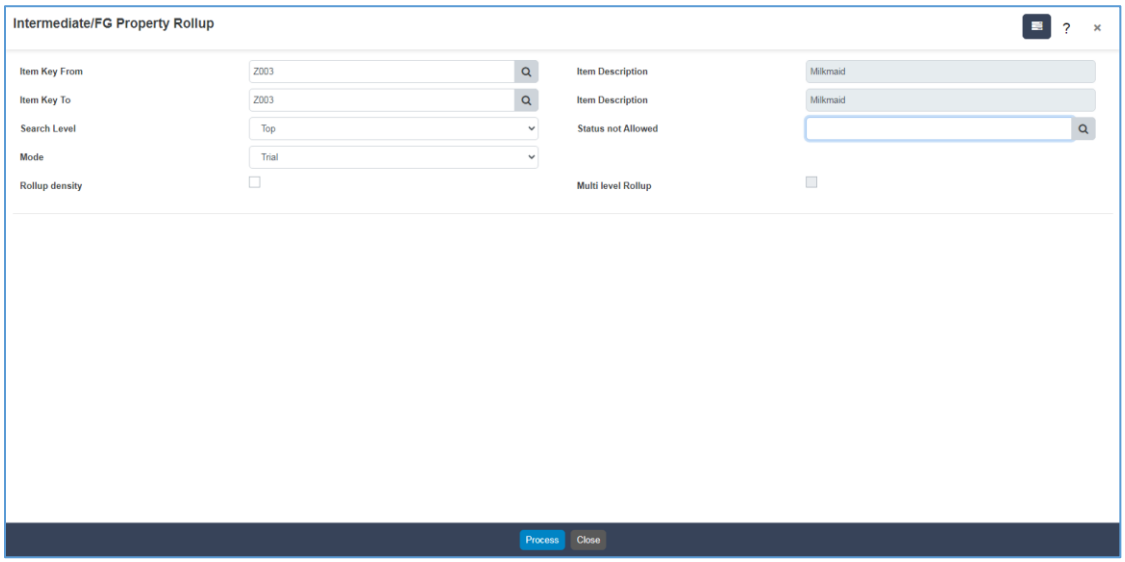
Intermediate/FG Property Rollup

The *Intermediate/FG Property Rollup* utility provides a way to update in-house intermediates' material property specifications based on the material properties of the intermediates' lower level ingredients. Adjustments can be made on a regular basis to ensure that the intermediates reflect the properties of the current composition. The screen provides options to define the intermediate update range, such as search level or status to be excluded from the rollup.

Go To: R and D → Laboratory Utilities → Intermediate/FG Property Rollup.

Intermediate/FG Property Rollup– Screen

Clicking on the *Intermediate/FG Property Rollup* option displays the Intermediate*/FG Property Rollup* screen, where you can process rollup.



Item Key From: This is the Item key that specifies the lower limit of the range of items for the property rollup. The lookup here is limited to those items for which at least one item location has a Bill of Materials of the 'Released' status. Leaving this field blank has the same effect as entering the first available Item Key (Intermediate).

Item Description: This field displays the description of Item Key. This is a read-only field.

Item Key To: This is the Item key that specifies the upper limit of the range of items for the property rollup. The lookup here is limited to those items for which at least one item location has a Bill of Materials of the 'Released' status. Leaving this field blank has the same effect as entering the last available Item Key (Intermediate).

Item Description: This field displays the description of Item Key. This is a read-only field.

Search Level: This field has two options:

a. **Top**: In this case, the roll-up will be single level.

b. **Bottom**: In this case, the roll-up will be multi-level, starting with the lowest level raw materials.

Status not Allowed: This field stores the Formula Statuses that would be excluded from the Intermediate Property Rollup. This prevents rolling up the intermediate's material property specifications. Leaving this field blank implies that none of the formula statuses have been excluded.

Mode: Select one of the options from the following:

- **Trial Mode:** Use this mode to view the proposed changes without making the changes for the purpose of determining the concern.
- **Actual Mode:** Pertaining to some end or conclusion, process a roll up with this option selected. This action would write the changes to the databases.

Multi-level Rollup: This option is used if you need to arrive at finished good material properties by rolling up the properties of the raw material and intermediate items into the finished goods, right from the lowest level.

Roll Up Density: This option is used if you wish to roll up the density. Rolling up the density calculates the density of the intermediate from the respective densities of its raw materials. *Formula From/To* fields appears when you click on this checkbox.

- **Formula From:** This is the Formula key that specifies the lower limit of the range of items for the property rollup.
- **Formula To:** This is the Formula key that specifies the upper limit of the range of items for the property rollup.

Rolling Up Intermediate/FG Property

1. Open the *Intermediate/FG Property Rollup* screen.

2. To restrict the records that are displayed in the *Intermediate/FG Property Rollup* window, use the *Item Key From* and *To* fields to specify a range of items. The lookup is limited to those items for which at least one item location/site has a Bill of Material (BOM) with Released status. Leaving these fields blank has the same effect as entering the first and last available item keys, respectively.

3. Choose a Search Level. Available options are *Top* and *Bottom*.

- When you want to roll up a single level, select the *Top* option. BatchMaster Enterprise will roll up raw materials from the Master Formula only.

- When you choose the *Bottom* option, BatchMaster Enterprise will perform a multi-level roll up starting with the lowest level raw materials.

4. In the *Status Not Allowed* field, select one or more formula statuses to be excluded from the rollup. This prevents rolling up the intermediate material property specifications for the excluded statuses. Leaving this field blank implies that none of the formula statuses have been excluded.

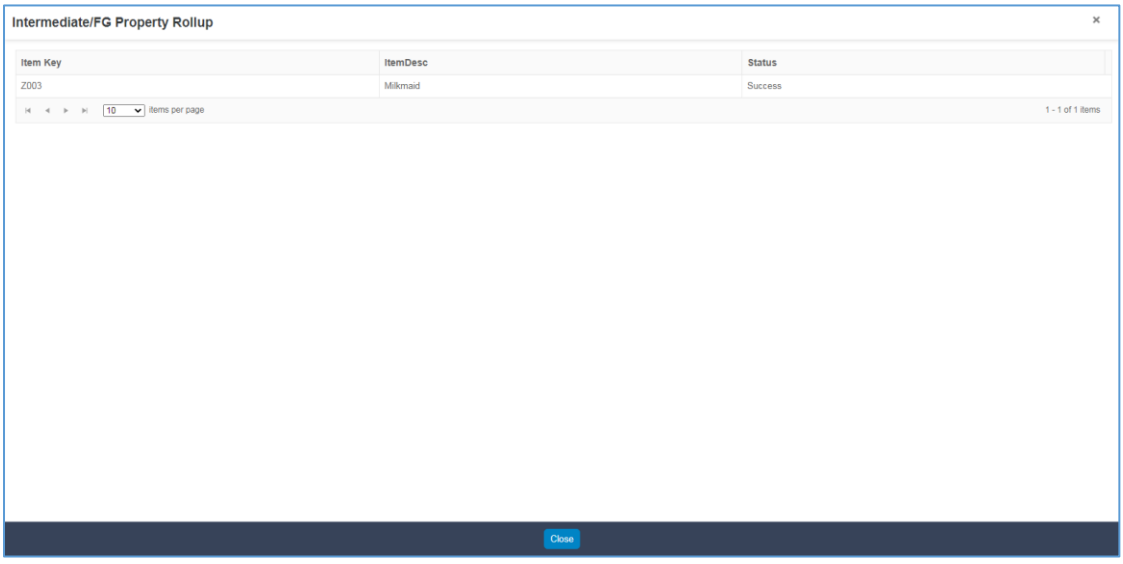
5. Mark the *Rollup density* checkbox, if you wish to roll up the density. Rolling up the density calculates the density of the intermediate from the respective densities of its raw materials. Specify the formula range using the lookups next to the Formula From/To fields.

6. Mark the *Multi level Rollup* checkbox, if you need to arrive at finished good material properties by rolling up the properties of the raw material and intermediate items into the finished goods, right from the lowest level.

   The option will be enabled only when you choose *Bottom* option for the *Search Level*.

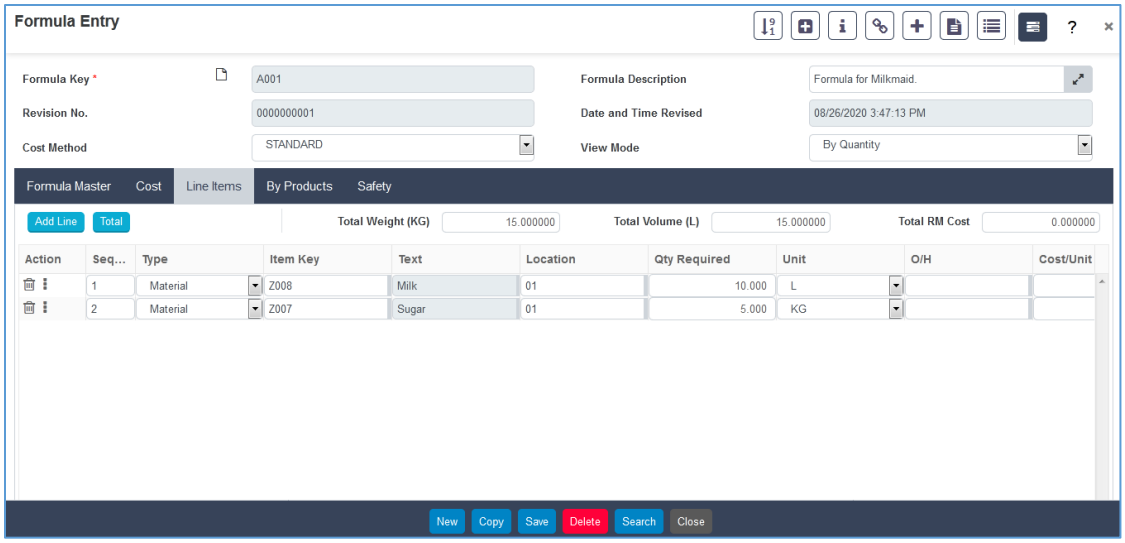
7. Select either *Trial* or *Actual* mode. The *Trial* mode provides a view of the proposed changes without actually changing the database. If you want to make permanent changes to the databases, choose the *Actual* mode.

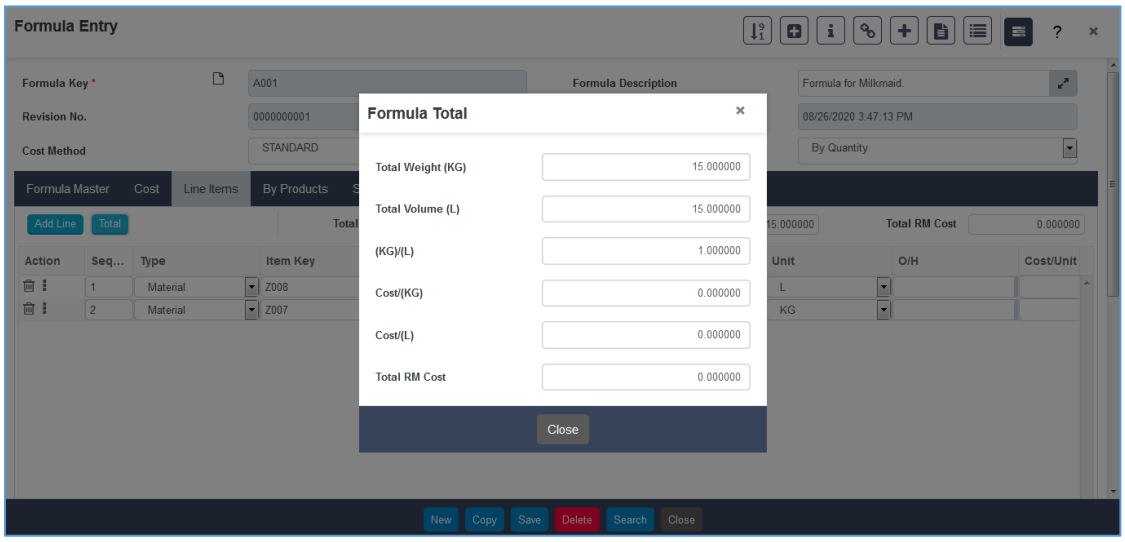
8. Click the *Process* button to perform the Intermediate Property Rollup. On clicking the *Process* button, the system displays following *Intermediate/FG Property Rollup* window.



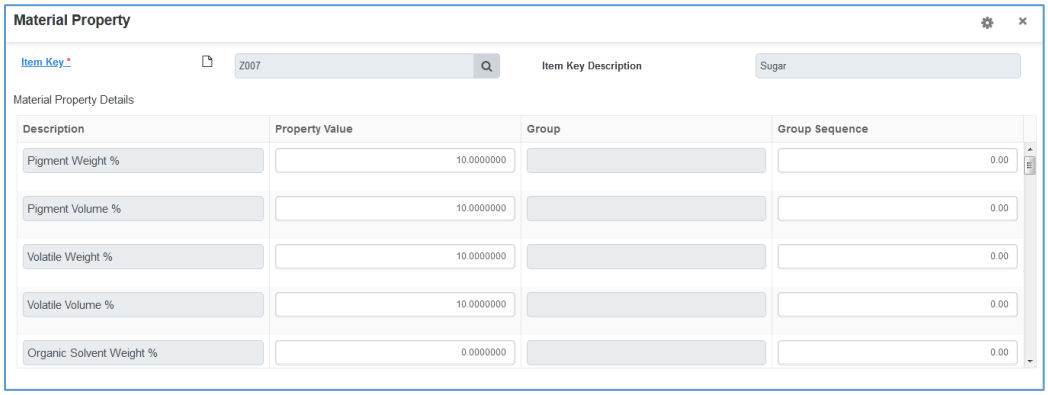
Understanding Intermediate / FG Property Rollup by Considering an Example

In this example we are considering the intermediate item Z003 (Milkmaid), which is created using two raw material items Z008 (Milk), and Z007 (Sugar).

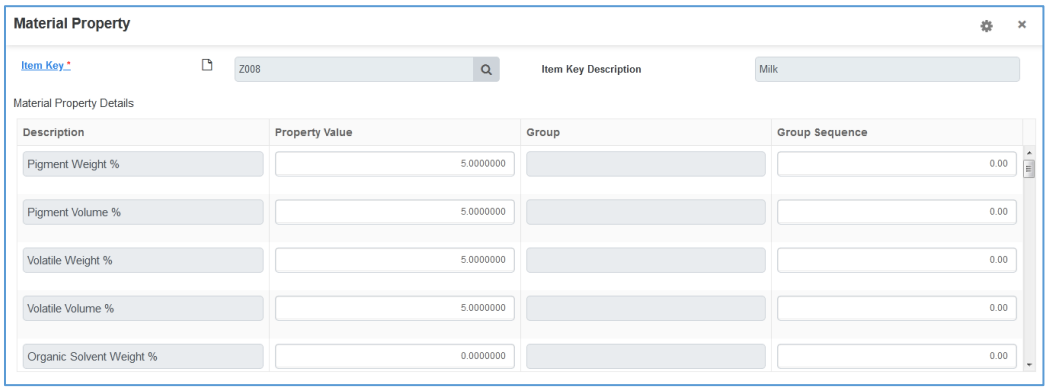




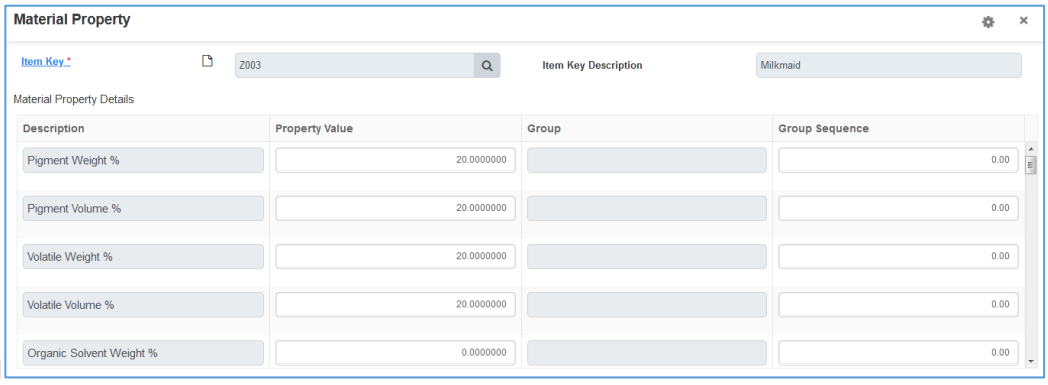
The *Material Property* screen displays the following property values for raw material Z007:



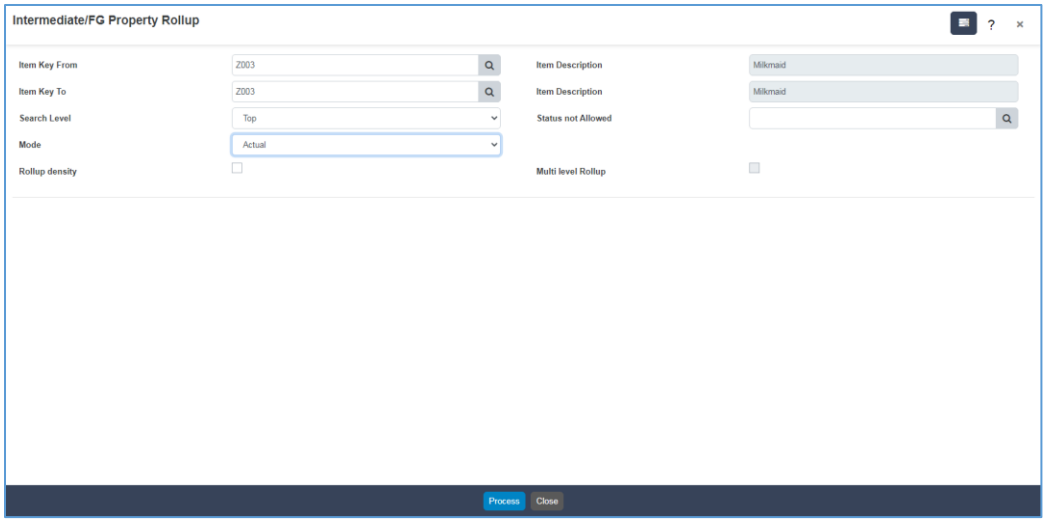
The *Material Property* screen displays the following property values for raw material Z008:



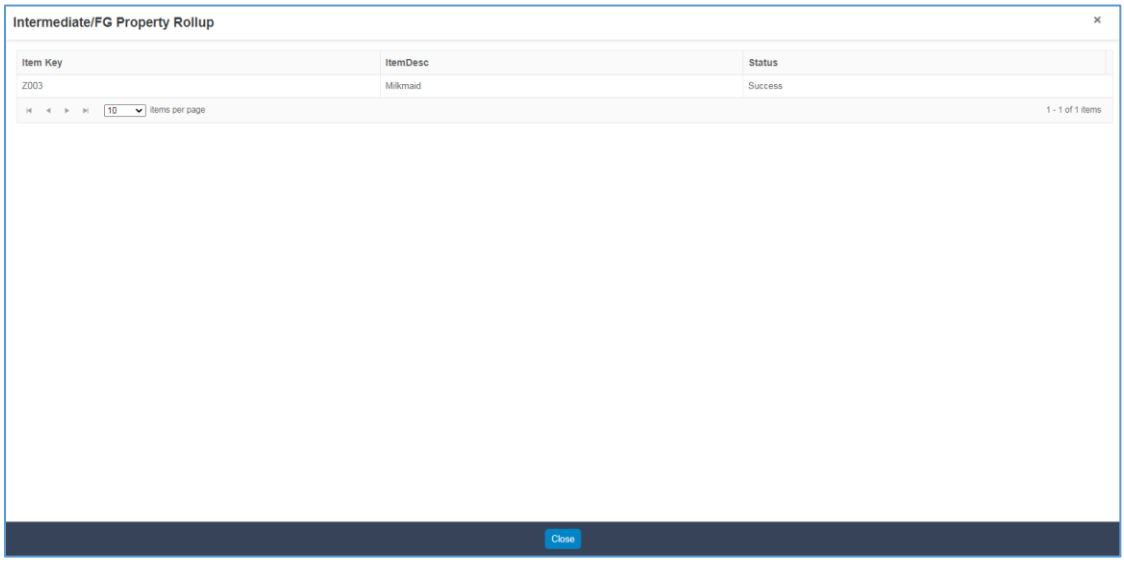
Before rollup, the *Material Property* screen will display the following property value for the intermediate item:



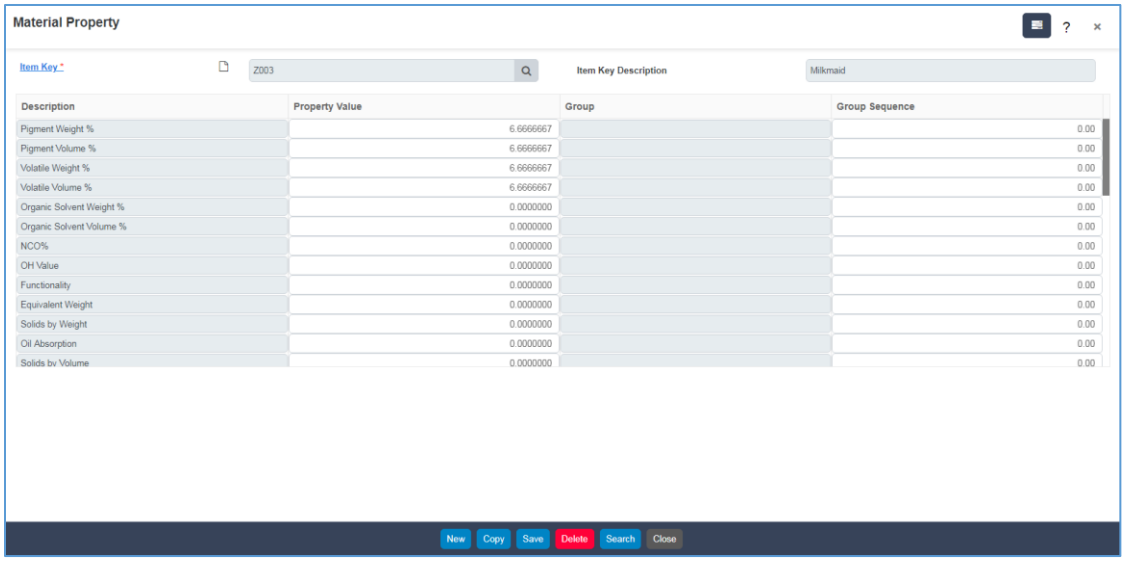
Using the *Intermediate Property Rollup* screen, process the rollup for intermediate item Z003 i.e. Milkmaid.



On clicking the *Process* button, the system displays a report stating the success of the material property rollup.



The material property of the intermediate item is updated on the *Material Property* screen after clicking on the *Process* button.



The following formula is used to calculate the Intermediate/FG Property Rollup:

Top → (Summation wt/vol * MPM of all items)/ (total wt/vol)

For constant, just add the values at MPM for all raw materials (RM).

(Property is calculated from just the lower level. Levels below that are not considered.)

Bottom → Same calculated from bottom

Example to Understand the Property Rollup Calculations in Detail

In this example, an intermediate Item is Z003 (Milkmaid) and the Raw Materials used to create the Z003 (Milkmaid) intermediate Item are Z008 (Milk) and Z007 (Sugar).

Property details of the intermediate and raw materials before processing the rollup are as follows:

1. Item: **Z003 Milkmaid (Intermediate Item)**

   Pigment Wt % = 20.

   Pigment Volume % = 20.

   Volatile Weight % = 20.

   Volatile Volume % = 20.

   Organic Solvent Weight % = 0.

2. Item: **Z008 Milk (Raw Material)**

   Pigment Wt % = 5.

Pigment Volume % = 5.

Volatile Weight % = 5.

Volatile Volume % = 5.

Organic Solvent Weight % = 0.

3. Item: **Z007 Sugar (Raw Material)**

   Pigment Wt % = 10.

   Pigment Volume % = 10.

   Volatile Weight % = 10.

   Volatile Volume % = 10.

   Organic Solvent Weight % = 0.

% Pigment Weight% for the intermediate item is calculated as:

Top → (Summation wt/vol * MPM of all items)/ (total wt/vol)

Intermediate Item's Pigment Weight% = 5* (10/15) + 10 * (5/15)

= 5*0.6+ 10*0.3

=3.333333333333333 +3.333333333333333

Intermediate Item's Pigment Weight % after rollup = 6.66666

The remaining property values can be calculated in the same manner.