

Easy Food Label — User Manual

Module: `easy_food_label` · **Odoo 19** · Allergen & Nutrition Label Generator (EU / US / GCC)

Legal note: this module is a calculation and formatting tool. It does not certify compliance. Final legal responsibility for label accuracy rests with the food business operator.

1. What the module does

Easy Food Label captures nutrition and allergen data **once, at raw-ingredient level**, rolls it up through **multi-level Bills of Materials** (handling cooking/moisture loss, compound sub-recipes, and unit conversion), and generates three regionally compliant label formats from that single dataset:

Region	Standard	Output
EU / UK	Regulation (EU) 1169/2011 (FIC)	Ingredient list with bolded allergens , Big-7 nutrition table, QUID %
US	FDA 21 CFR 101.9	Nutrition Facts panel, %DV, "Contains" statement
GCC / SFDA	GSO 9:2013	Bilingual Arabic-English label, RTL layout

No label can be printed clean until it passes validation and is approved. Missing data **blocks approval** — the module never silently prints a zero.

2. Roles & access rights

Assign users a role under **Settings → Users → Food Labelling**:

Role	Can do
Label User	Read specs, run reports, view dashboards
Data Entry	+ create/edit ingredient nutrition & allergen data, edit draft specs
QA / Regulatory Approver	+ approve & publish specs, validate lab analyses, override data-gap blocks (with recorded justification)
Manager	+ regulation profiles, label templates, settings

3. Quick-start workflow (overview)

1. Flag products → 2. Enter nutrition → 3. Declare allergens

→ 4. Set up recipes (BoM Food tab) → 5. Create label spec

→ 6. Run Rollup → 7. Fix validation issues → 8. Approve

→ 9. Publish & Print

Everything can be driven from **Food Labelling → Dashboard**, which shows workflow counters (Draft / Under Review / Approved / Published), a clickable alerts panel (outdated specs, blocking errors, expiring supplier declarations, ingredients missing data), master-data shortcuts, and the recently updated specs.

4. Step-by-step

Step 1 — Flag your products

Open any product (**Food Labelling → Products → Food Products / Ingredients**, or the normal Inventory app) and tick, in the checkbox options under the product name:

- **Food Ingredient** — raw materials that carry nutrition/allergen data (flour, milk, tomato...)

- **Food Product** — finished or intermediate products that receive labels (lasagne, sauce...)

Ticking either reveals the **Food Data** tab on the product form. Fill in:

- **Legal / Labelling Name** — the regulated name printed on the pack (translatable). *This is mandatory: validation blocks approval without it.*
- **Arabic Legal Name** — mandatory for GCC labels.
- **Density (kg/L)** — **required for liquid ingredients** measured in volume units; the rollup refuses to convert litres to mass without it.
- Country of origin, E-number/additive class, certifications (organic/halal/kosher), GMO status, net quantity.
- For US labels: **FDA RACC Category** and **Household Measure** (e.g. "1 cup (240 ml)").

Step 2 — Enter nutrition data (per ingredient)

Food Labelling → Products → Nutrition Profiles → New (or the **Nutrition** smart button on the product):

1. Choose the **Product** and the **Source** (Supplier Specification / Lab Analysis / Database / Calculated / Estimated) — attach the source document.
2. Add one line per nutrient with the **value per 100 g as purchased**. Nutrient units are fixed by the master data (g, mg, µg, kcal, kJ).
3. **Salt ↔ Sodium** are auto-synchronised (salt = sodium × 2.5). Set which one is authoritative on the profile; the other is derived automatically.
4. Click **Activate**. Only the *active* profile is used by rollups; activating a new version supersedes the old one and automatically flags dependent labels as outdated.

Tip: enter at least the EU Big-7 (energy kJ+kcal, fat, saturates, carbohydrate, sugars, protein, salt) plus water/moisture. For US labels also enter trans fat, cholesterol, sodium, fibre, added sugars, vitamin D, calcium, iron, potassium.

Step 3 — Declare allergens (per ingredient)

On the product's **Food Data** tab (or **Food Labelling → Products → Allergen Declarations**), add one line per allergen:

- **Status:** *Contains / May Contain (Cross-Contact) / Free From*
- **Source:** intentional ingredient, supplier-facility cross-contact, own-facility cross-contact
- Attach the **supplier declaration** and set **Valid Until** — expiring declarations raise a dashboard alert 30 days ahead.

The 24 pre-loaded allergens cover EU Annex II (14), US FALCPA + sesame (9), and GCC/GSO lists, each with Arabic names and per-region declarable flags.

Step 4 — Set up recipes (BoM Food tab)

Open the Bill of Materials (**Manufacturing → Products → Bills of Materials**) and fill the **Food** tab:

- **Yield (%)** — output mass as % of input mass. A sauce reduced from 1.0 kg of input to 0.6 kg has yield 60%.
- **Loss Type** —
- **Moisture Loss:** water evaporates, all other nutrients are conserved, so per-100 g values **rise** (correct for reductions, baking, drying).
- **Material Loss:** everything scales down proportionally (spillage, trim).
- **Compound Ingredient** — tick on a sub-recipe that must be declared with its own bracketed sub-list, e.g. `Tomato Sauce (tomato, salt)` per FIC Annex VII.
- **Water Added (%)** — declarable above the threshold (default 5%).

Multi-level BoMs are handled automatically: a sauce used inside a lasagne is exploded recursively, with yield applied at every level, deepest first.

Step 5 — Create a Label Specification

Food Labelling → Label Specifications → New (or the **Label Specs** smart button on the product). One spec per product **per region** — a product sold in the EU and GCC gets two specs.

- **Product** — the finished food product.

- **Regulation Profile** — EU FIC / US FDA / GCC GSO (pre-loaded, versioned).
- **Label Template** — physical size/layout (defaults provided per region).
- On the **Presentation** tab: serving size, servings per container, storage / preparation / shelf-life statements, business operator, and (GCC) importer details.

Step 6 — Run the Rollup

Click **Run Rollup**. The engine:

1. Explodes the BoM to leaf ingredients on a mass basis (kg), converting volumes via density.
2. Sums nutrient contributions and applies yield/loss per level.
3. Unions allergens (*Contains* beats *May Contain* beats *Free From*), keeping a **trace path** showing exactly which ingredient at which BoM level introduced each allergen.
4. Builds the ingredient list in descending weight order with compound brackets and QUID %.
5. Stores a deterministic hash plus the exact BoM and profile versions used — the same inputs always reproduce the same label (audit requirement).

Review the results on the **Nutrition / Allergens / Ingredient List** tabs. If a validated **Lab Analysis** exists for the product, measured values override calculated ones per nutrient (the *Basis* column shows which is which).

Step 7 — Fix validation issues

The **Validation** tab lists every compliance check with its rule reference:

- **Errors (red)** block approval: missing mandatory nutrients, missing legal name, allergen declared but not emphasised in the EU ingredient list, missing RACC (US), missing Arabic names (GCC), empty ingredient list...
- **Warnings (yellow)** don't block: energy cross-check divergence, missing household measure, small font x-height...

Fix the underlying data and click **Run Rollup** again. An approver may bypass errors only by writing an **Override Justification**, which is permanently recorded in the chatter.

Step 8 — Approve

1. **Submit for Review** (any editor).
2. **Approve** (QA/Regulatory Approver group only) — validation re-runs at this moment.
3. **Publish** — the spec is now production-current.

Approved and published specs are **immutable**: any edit attempt is refused. To change anything, click **New Version** — a linked draft copy is created and the old version is marked *Superseded*. Published specs can never be deleted, only archived.

Step 9 — Print the label

Click **Print Label** on the spec (or use the Print menu). The region determines the panel:

- **EU** — ingredient list with allergens in bold, tabular nutrition per 100 g (+ per portion).
- **US** — FDA Nutrition Facts panel with %DV column and "Contains:" statement.
- **GCC** — bilingual side-by-side panel, Arabic column right-to-left.

Draft/under-review specs print with a diagonal **DRAFT — NOT FOR PRODUCTION** watermark; only approved/published specs render clean.

5. Change management (automatic)

You never need to remember which labels a data change affects:

When...	The module...
An active nutrition profile or a single nutrient value changes	flags every dependent approved/published spec Outdated and schedules an activity
An allergen declaration changes	same propagation
A BoM's food fields or lines change	bumps the recipe version and flags dependent specs
A regulation profile's rules change	flags all specs using that profile

Outdated never silently recomputes an approved label — you review, create a **New Version**, re-run the rollup, and re-approve. The dashboard alert panel lists all outdated specs.

6. Lab analyses

Food Labelling → Products → Lab Analyses → New: record the lab, accreditation, sample lot, date, report attachment, and measured values per nutrient. After an approver clicks **Validate**:

- measured values **override** calculated ones in subsequent rollups (partial override is fine — e.g. lab-tested salt with calculated vitamins);
- the **tolerance check** flags nutrients where lab and calculation diverge beyond the configured % — an early warning that recipe data is wrong.

Validated analyses are regulated records: archive them, don't delete.

7. Reports

Food Labelling → Reports opens the report wizard. Pick a report, optional product/spec/region filters, and an **output language**, then choose:

- View** — opens the matching list view in Odoo,
- PDF** — print-ready document (preview in the browser before saving),
- XLSX** — spreadsheet download (right-to-left sheets for Arabic output).

Report	Use it for
R1 Product Label Specification	The technical file / retailer spec sheet
R3 Allergen Matrix	Products × allergens grid — the document retail auditors ask for
R6 BoM Nutrition Explosion	The audit worksheet proving how every value was derived
R9 Regulatory Validation	Every compliance check per product, pass/fail, with rule references

8. Configuration (Manager role)

Food Labelling → Configuration:

- Settings** — default region, dual sign-off, lab tolerance %, draft watermark text, legal disclaimer, and the **Arabic Font Diagnostic** (checks that Noto Naskh Arabic/Amiri is installed server-side — required for correct GCC PDF rendering).
- Nutrients** — extend the shipped list (44 pre-loaded); custom nutrients join labels via the regulation profiles.
- Allergens** — add local allergens; per-language **match terms** drive the EU bolding algorithm and **negation terms** prevent false hits ("milk-free").
- Regulation Profiles** — the heart of "regulation as data": mandatory nutrient sets, rounding rules, Daily Values, RACC references, all versioned with effective dates. A regulation amendment = edit the data + bump the version; no code change.
- Label Templates** — physical dimensions (mm), margins, font stack, layout variant, language pairing.

9. Languages

- **UI:** the interface ships with translations for English, Arabic, Bangla, Chinese, Spanish, French, and German. Install languages under **Settings → Translations → Languages**; each user picks theirs in preferences (Arabic mirrors right-to-left).
- **Label content:** legal names, statements, nutrient and allergen names are *translatable fields* — switch language in the top bar (or use the field's globe icon) to enter the per-language regulated text. A spec's **Content Languages** field declares which languages must be complete; missing Arabic data blocks GCC approval rather than silently falling back to English.

10. Troubleshooting

Symptom	Cause & fix
"No Bill of Materials found" on rollup	The product needs a <i>normal</i> (manufacture-type) BoM
"...measured by volume but has no density"	Set Density (kg/L) on the liquid ingredient's Food Data tab
"BoM cycle detected"	A recipe contains itself (directly or via a sub-recipe) — fix the BoM chain
Nutrient shows <i>incomplete</i> , approval blocked	An ingredient lacks an active nutrition profile or that nutrient's line — the offending ingredient is listed; the module never assumes zero
Spec suddenly flagged Outdated	An ingredient, BoM, or regulation profile it depends on changed — open it, create a New Version , re-run rollup, re-approve
Arabic prints as disconnected letters	Install the Noto Naskh Arabic font on the server and re-check the diagnostic in Settings
"Only QA/Regulatory approvers can approve"	Your user lacks the QA / Regulatory Approver role
Can't edit an approved spec	By design — approved specs are immutable; use New Version