

Design the label your product needs.

For packing, quality, regulatory and operations teams choosing or improving a label system: what good labels carry in 18 industries, where each value and symbol should come from, and how to check it before it reaches a customer.



Nine example layouts

Food (UK/EU and US), Supplement Facts, meat case, pallet SSCC, medicine carton, device symbols with UDI, GHS hazard label and EU cosmetics — field by field.

A checklist for 18 industries

Which label rules and standards to check, the primary source, and the question to ask before you design.

An expert evaluation toolkit

Data architecture, revision and audit control, printing, integration, validation, deployment, RFP questions and a scored final checklist.

CONTENTS

What's inside

1	Why label control matters	3
2	Label types: examples of what you can design	4
3	Data architecture: connected values, fixed template text	6
4	Panels and allergens: nutrition, supplements, markets	7
5	Barcodes, variable data and serialisation	8
6	Templates, revisions, approval and audit trail	9
7	Printing and integration	10
8	Regulated manufacturing and validation	11
9	Deployment, implementation pitfalls and migration	12
10	Market requirement checklist: 18 industries	13
11	Field-mapping worksheet	15
12	RFP questions for any label-system supplier	16
13	Final evaluation checklist and where V5 fits	17
14	Sources and where to read them	18

Who this is for

Packing leads, quality and regulatory managers, artwork owners, IT and validation teams, and anyone choosing software that prints product, production or compliance information onto packs, cases and pallets — in food, supplements, pharma, devices, chemicals, cosmetics and other regulated manufacturing.

How to use it

- Read sections 1–9 to agree what a controlled label process should look like.
- Use the market checklist and field-mapping worksheet for one real product.
- Send the RFP questions to suppliers, and score their demonstrations with the final checklist.

Important. Label rules differ by product, market and customer. The examples use made-up products, companies and identifiers; they are layouts for discussion, not approved artwork or regulatory advice. Your regulatory and quality teams decide what each label must say.

1 • OVERVIEW

Why label control matters

A label is the last record a product carries out of your building. If it is wrong, everything upstream — the right recipe, the right lot, the right checks — is undone at the point a customer, patient or inspector reads it.

How label errors usually happen

FAILURE	TYPICAL CAUSE	CONTROL THAT PREVENTS IT
Undeclared allergen	Recipe or supplier changed; label text maintained separately	Allergen statement built from the approved recipe; label revision triggered by recipe change
Wrong lot or date	Values typed at the printer; shelf-life worked out by hand	Lot from the job; date from a shelf-life rule
Old artwork prints	Files on a shared drive; no blocking of retired versions	Approved revision only; previous revision blocked
Barcode doesn't match text	Barcode and human-readable built from different inputs	Both generated from the same data; sample scanned
Wrong label on the line	Look-alike rolls; changeover not checked	Pack-out scan against the job; line clearance recorded
Can't prove what printed	No print log; reprints unrecorded	Print and reprint history linked to the batch record

The principle behind this guide

Connect, don't type. Almost every value on a label should come from controlled data: the product master, recipe or formula, production job, inventory, supplier, device and serial records. Fixed template text is normally limited to headings, instructions and artwork.

Approve the template, not each print. Once a layout is approved, the data fills it the same way every time. Reviewers then focus on changes and exceptions, not retyping.

2 • LABEL TYPES

Retail, supplement, case and pallet

Examples of what you can design — not a menu of templates. Each combines fixed template text, values filled from records, and real barcodes encoding exactly what's printed beside them (GS1 documentation prefix 0614141).

Oat & Honey Granola Bars
6 bars × 35 g

Ingredients: Rolled **OATS** (52%), honey (14%), **ALMONDS** (10%), brown sugar, sunflower oil, skimmed **MILK** powder, sea salt, natural vanilla flavouring.

Allergy advice: for allergens, including cereals containing gluten, see ingredients in bold. May contain peanuts.

Best before 31.03.2027

Lot G261001

Net weight 210 g

Store in a cool, dry place.



0 614141 123452

Ingredients and allergens • UK/EU pack. Allergens emphasised in the ingredients list, as UK and EU rules expect; oats are declared as a cereal containing gluten.

Supplement Facts

Serving Size 2 Capsules
Servings Per Container 30

Amount Per Serving		% Daily Value
Vitamin D (as cholecalciferol)	25 mcg (1,000 IU)	125%
Magnesium (as magnesium citrate)	210 mg	50%

Other ingredients: hypromellose (capsule), microcrystalline cellulose, rice flour.

Distributed by Example Nutrition Co., Springfield, IL

Vitamin D3 + Magnesium
Dietary supplement
60 capsules

Lot S26-0412

Best by 2028-04-30



0 61414 15678 3

Supplement Facts • US pack. A separate US format from Nutrition Facts: amount and % Daily Value per serving, with each nutrient's source.

BEEF STRIPLOIN • BONELESS
Vacuum packed • Keep refrigerated 0–4 °C

NET WEIGHT **18.45 kg**

PACKED 2026-10-01 **LOT** B2610014

Variable-weight case • GTIN 90614141200019



(01)90614141200019(3102)001845(13)261001(10)82610014

Variable-weight meat case. GS1-128 with case GTIN (01), net weight in kg (3102), pack date (13) and lot (10). Each case prints its own scale weight.

FROM **Example Foods Ltd**
Springfield plant

TO **Example Distribution DC**
Dock 4

SSCC **0 0614141 000004211 1**

CONTENT **10614141123459** **COUNT** **48** **BEST BEFORE** **31.03.2027**

Oat & Honey Granola Bars, case of 12 **BATCH** **G261001**



(02)10614141123459(37)48(15)270331(10)G261001



(00)006141410000042111

Pallet label (SSCC). GS1 logistic label: SSCC (00) in its own barcode; content GTIN (02), count (37), best-before (15) and batch (10) above.

2 • LABEL TYPES (CONTINUED)

Medicines, devices, chemicals and cosmetics

Regulated layouts mix data with symbols. Symbol artwork is fixed in the template; the values beside it come from records.

Exemplamol

500 mg film-coated tablets
20 tablets (2 × 10) · oral use



GTIN 00614141300075

SN 84KD2Q91X7

LOT PX4471

EXP 2028-03-31

Unique serial per carton · data carrier GS1 DataMatrix

Serialized medicine carton. GS1 DataMatrix carrying GTIN (01), expiry (17), lot (10) and a unique serial (21), repeated in text for people.

Biopsy forceps

2.3 mm × 1600 mm · sterile, single use



Example Medical Co., Springfield
Manufacturer

UDI



2026-09-15
Date of manufacture



2031-09-14
Use-by date



DV0915A
Batch code



100482
Serial number



BF-2316
Catalogue number



Do not re-use

Consult instructions for use

Sterilised using ethylene oxide

(01)00614141400065(11)260915(17)310914
(10)DV0915A(21)100482

Symbols per ISO 15223-1, each with its meaning; the UDI repeats in human-readable form.

Device label with symbols and UDI. ISO 15223-1 symbols — manufacturer, date of manufacture, use-by, LOT, SN, REF, do not re-use, consult instructions, sterile EO — each with its meaning, plus the UDI.

Isopropyl Alcohol 99%

Propan-2-ol · CAS 67-63-0



DANGER

Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Avoid breathing vapours. Wear eye protection. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention. Store in a well-ventilated place. Keep cool. Read the safety data sheet before use.

Example Chemical Co.
100 Example Way, Springfield, IL 62701
+1 555 0100

Net 4 L
Lot C26-1187

GHS hazard label. One substance throughout: propan-2-ol, signal word Danger, flame and exclamation-mark pictograms, matching hazard and precautionary statements.

EXAMPLE BOTANICS

75 ml

Hydrating Hand Cream

Shea butter & glycerin · for dry hands

INGREDIENTS: AQUA, GLYCERIN, CETEARYL ALCOHOL, CAPRYLIC/CAPRIC TRIGLYCERIDE, BUTYROSPERMUM PARKII BUTTER, CETEARETH-20, DIMETHICONE, PHENOXYETHANOL, ETHYLHEXYLGLYCERIN, PARFUM, SODIUM HYDROXIDE, LINALOOL

For external use only. Avoid contact with eyes.



Use within
12 months
of opening

Batch HC2610-07

Example Botanics B.V.
Voorbeeldstraat 1, 1000 AA
Amsterdam, NL



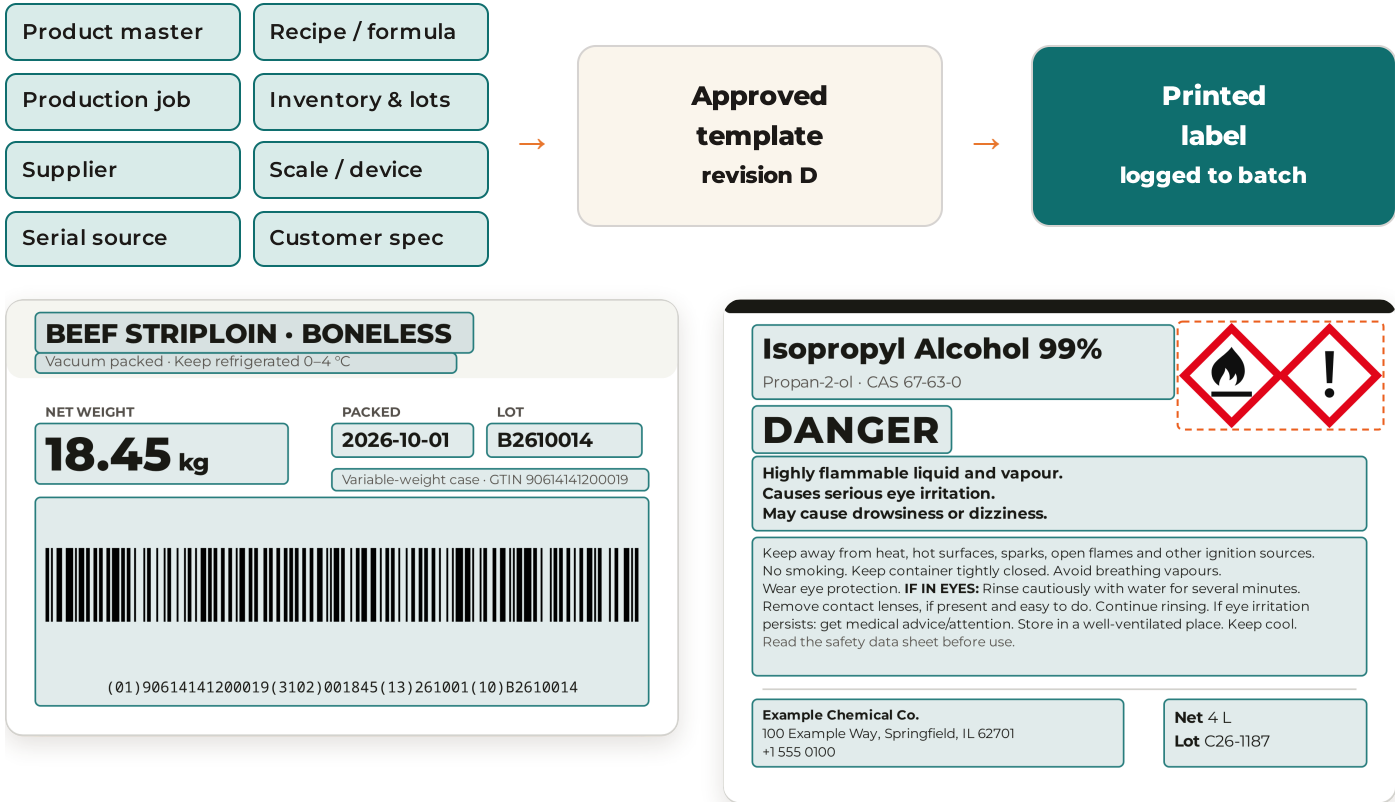
0 614141 987658

Cosmetic · EU pack. INCI ingredients from the formula, batch, responsible person, and a period-after-opening symbol (used when the product keeps more than 30 months).

3 · DATA ARCHITECTURE

Connected values, fixed template text

A controlled label is a template populated from approved records. Teal shows values connected to data; dashed orange shows symbols and artwork fixed in the template.



ELEMENT	USUALLY	SOURCE
Product name, description, pack size	Connected	Product master
Ingredients, allergens, nutrition, INCI, hazard statements	Connected	Approved recipe, formula or SDS record
Lot, dates, weight, count, serial	Connected	Job, shelf-life rule, scale, serial source
Manufacturer, supplier, responsible person, GTIN	Connected	Company, supplier and item records
Headings (“Ingredients”, “Lot”), fixed instructions	Template text	Approved template revision
Symbols, pictograms, logos, certification marks	Template artwork	Licensed artwork; chosen by your regulatory team

4 • PANELS & ALLERGENS

Nutrition, supplements and markets

Nutrition Facts

6 servings per container

Serving size 1 bar (35g)

Amount per serving

Calories 150

	% Daily Value*
Total Fat 5g	6%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 65mg	3%
Total Carbohydrate 23g	8%
Dietary Fiber 2g	7%
Total Sugars 10g	
Includes 8g Added Sugars	16%
Protein 3g	
Vitamin D 0mcg	0%
Calcium 20mg	2%
Iron 0.8mg	4%
Potassium 110mg	2%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Oat & Honey Granola Bars

6 bars × 35 g
Net wt 210 g (7.4 oz)

Contains: Almonds, Milk.

Example Foods Ltd
Springfield, IL 62701

Store in a cool, dry place.

Best before 2027-03-31

Lot G261001

FIELD	WHAT TO CHECK (US NUTRITION FACTS)
Servings	6 × 35 g = 210 g net, matching the pack.
Calories	5 g fat × 9 + 23 g carbohydrate × 4 + 3 g protein × 4 = 149, declared 150.
Rounding	Increments in 21 CFR 101.9, e.g. sodium to nearest 5 mg.
%DV	5 g ÷ 78 g fat = 6%; 8 g ÷ 50 g added sugars = 16%.
Supplements	Supplement Facts (21 CFR 101.36) is a different format: per-serving amounts in the product's own unit, e.g. vitamin D 25 mcg = 125% DV.

One product, two allergen layouts

MARKET	ALLERGENS COVERED	HOW IT IS SHOWN	GRANOLA BAR EXAMPLE
US	9 major food allergens incl. sesame (FALCPA, FASTER Act)	In the ingredients list or a “Contains” statement	Contains: Almonds, Milk. (Oats are not a US major allergen.)
UK / EU	14 allergens (Reg. (EU) 1169/2011 Annex II) incl. cereals containing gluten	Emphasised within the ingredients list	Rolled OATS ... ALMONDS ... MILK

Where values should come from. One approved source — laboratory analysis, calculation from ingredient data, or both — signed off before artwork, and recalculated when a recipe, supplier or process loss changes. Format follows the market: US, UK, EU and Canadian panels differ.

Barcodes, variable data and serialisation

GS1 AI	MEANING	CHANGES	USUALLY COMES FROM
(00)	SSCC — pallet or logistic unit	Per pallet	Shipping record
(01) / (02)	GTIN of the item / of contents in a logistic unit	Per product / pallet build	Item master / shipping
(10)	Batch or lot	Per batch	Job / lot record
(11) (13) (15) (17)	Production, pack, best-before, expiry dates	Per batch	Job and shelf-life rule
(21)	Serial	Per unit	Serial source you control
(37) / (3102)	Count / net weight kg	Per pallet / case	Shipping / scale

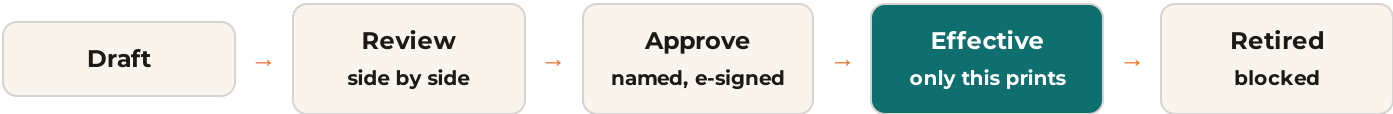
Standards and verification

- **Choose the carrier for the job:** EAN/UPC at retail POS; GS1-128 on cases and pallets; GS1 DataMatrix for pharma and many devices; QR for links.
- **Grade critical codes** to ISO/IEC 15416 (linear) or 15415 (2D) where customers expect it; agree a minimum grade.
- **Protect quiet zones and size** in the template so a data change can't shrink or crowd the symbol.
- **Human-readable must match the symbol** — generate both from the same data.

Lot, date and serial logic

- **Dates by rule:** best-before or expiry from the production date plus the product's shelf life, with the date format per market.
- **Lot format agreed** once and used across labels, barcodes and records.
- **Serials unique** per GTIN, from one controlled source; know who commissions, aggregates and reports them.
- **Other schemes:** some devices use HIBCC; blood and tissue use ISBT 128. Confirm which apply.

Templates, revisions, approval and audit trail



CONTROL	WHAT GOOD LOOKS LIKE	OK
One template per layout	Fixed text, artwork and connected fields clearly separated.	☐
Revision identified	The approved revision is known for each product, market and customer.	☐
Change reason	Every revision records why, and links to the recipe, formula or artwork change behind it.	☐
Named approval	A named person approves before it can print; the previous revision is blocked.	☐
Electronic records	Approvals are signed with meaning, date and time, and cannot be edited afterwards.	☐
Permissions	Who can design, approve and print are separate roles; printing cannot change the template.	☐
Audit trail	Template changes, approvals, prints and reprints are recorded with who, when and why.	☐
Linked to the batch	The batch or pack record shows which revision and which data printed.	☐

Tip. Ask to see an audit trail for a real revision during a demonstration — not a screenshot of the settings page.

Printing and integration

PRINTING	QUESTIONS TO SETTLE	
Printer language & models	Which models, and which languages (for example ZPL or EPL) or drivers? Mixed fleets?	
Resolution & stock	203/300/600 dpi changes barcode size and small text; label stock and ribbon suit the environment (chilled, wash-down, solvent).	
Print-and-apply	Line speed, applicators and trigger signals; who owns the integration.	
Connectivity	Network printers, queueing, behaviour when the connection drops.	
Reprints & voids	Recorded with reason and quantity; voided labels destroyed.	

SYSTEM	TYPICALLY PROVIDES TO THE LABEL	ASK
ERP	Item, GTIN, customer, orders, shipping	Which system is master for each field?
MES	Job, lot, dates, weights, counts, line	Does printing happen inside the job?
QMS	Approvals, change control, release status	Can a held lot still print?
LIMS	Test results, potency, CoA values	Are results approved before they reach a label?
WMS	SSCC, pallet build, ASN, location	Are SSCCs sent with the ASN?

Fewer hand-offs means fewer copies of the same value. Where systems must stay separate, agree one master per field and how changes flow.

Regulated manufacturing and validation

Software can support compliance; it cannot make you compliant. These are the rules buyers most often map label control against — check which apply to you.

REFERENCE	WHAT IT ASKS OF LABEL CONTROL (SUMMARY)
21 CFR Part 11 (US)	Trustworthy electronic records and signatures: audit trails, unique users, signature meaning, record protection.
EU GMP Annex 11	Computerised systems: risk management, validation, data integrity, change and configuration control.
21 CFR 211.122–130	Drug labelling: material control, issuance, reconciliation, line clearance and inspection.
21 CFR 820 (QMSR) / ISO 13485	Devices: labelling controls and inspection, UDI under 21 CFR 801/830, document and change control.
Food rules (21 CFR 101, Reg. (EU) 1169/2011)	Correct content and allergen declaration; most food sites apply HACCP-style label checks.

Validation and testing

TEST AREA	WHAT GOOD LOOKS LIKE	OK
Intended use written	What the label system must do, for which products and markets.	☐
Risk-based scope	Test hardest where an error harms people: allergens, dosage, expiry, UDI.	☐
Test with real data	Representative products, longest texts, special characters, every market variant.	☐
Barcode challenge	Scan every symbol type; compare content with human-readable.	☐
Negative tests	Retired revision, held lot, wrong roll, missing data — all blocked or flagged.	☐
Change control	How supplier updates are assessed and re-tested.	☐

Deployment, pitfalls and migration

OPTION	STRENGTHS	CONSIDER
SaaS / cloud	Supplier runs hosting, backups and updates; fast start	Update cadence and how changes are communicated for validation; printer connectivity from site
Private cloud	Dedicated environment; more control over timing	Who patches and monitors; cost
On-premises	Local network, works with site IT rules	Your team owns servers, backups and upgrades

Common pitfalls

- Migrating hundreds of old layouts instead of rationalising to a few templates with variants.
- Leaving values typed at the printer “just for now”.
- Master data not cleaned before go-live — the label exposes it.
- Underestimating printer and stock testing at line speed.
- No owner for symbols and certification marks.

Migration steps

1. Inventory current labels by product, market and customer.
2. Group into template families; list connected fields.
3. Clean the source data; fill the field-mapping worksheet.
4. Build, review side by side with current artwork, approve.
5. Run in parallel on one line; scan and compare.
6. Retire old files so they cannot print.

Market requirement checklist

What each market typically requires, not a list of V5 features: confirm each requirement with your regulatory team and each capability with your supplier. A starting map, not a complete legal list.

INDUSTRY	WHAT LABELS TYPICALLY NEED	PRIMARY SOURCE	ASK BEFORE YOU DESIGN
Food, bakery, ingredients & dry mixes	Ingredients in order; allergen declaration (US: 9 major allergens incl. sesame, 'Contains' or in-list; UK/EU: 14 allergens emphasised in the list); nutrition panel per market; net quantity; date marking.	21 CFR 101; FDA Allergen Q&A Ed. 5; Reg. (EU) 1169/2011; UK FSA allergen guidance	Which markets will each recipe ship to, and does the allergen wording change per market?
Produce packing	Product, origin, packer; lot or traceability code where captured; case labels for retail customers.	21 CFR 101; FSMA 204 (21 CFR 1 Subpart S) records for Food Traceability List foods	Is traceability data captured at intake, and printed on the case?
Meat & sausage	Product name, net weight, safe handling, inspection legend; variable-weight cases.	USDA FSIS 9 CFR 317 / 381; EU 1169/2011, 853/2004; GS1 meat guidelines	Does each case print its own scale weight in the barcode (AI 3102)?
Dietary supplements	Identity statement; Supplement Facts panel (not Nutrition Facts); other ingredients; claim disclaimers when claims are made.	21 CFR 101.36; FDA Dietary Supplement Labeling Guide; EU Directive 2002/46/EC	Can the panel and source names come from the approved formula?
Pharmaceutical	Product, strength, lot, expiry; product identifier (GTIN/NDC, serial, lot, expiry) in a 2D barcode where required; label control.	21 CFR 201, 211.122–130; DSCSA; EU Directive 2001/83/EC + Reg. (EU) 2016/161	Who commissions serials and reports to verification systems?
Veterinary pharma	Species, strength, withdrawal periods where applicable, lot, expiry.	21 CFR 201 (animal drugs); Reg. (EU) 2019/6	Are species- and market-specific texts separate controlled revisions?
Radiopharmaceuticals	Product label under medicine rules; radiation symbol on containers; transport labels (Class 7) are a separate shipping determination.	21 CFR 201; EudraLex Annex 3; 10 CFR 20.1901–1905 (NRC); 49 CFR 172.403	Which radioactive and transport labels are in scope, and which system determines them?
Medical devices	UDI (device + production identifiers) in AIDC and human-readable form; ISO 15223-1 symbols with a symbols glossary.	21 CFR 801 (801.15, 801.20); FDA UDI basics & Use of Symbols; EU MDR 2017/745 Annex I §23	Who submits UDI data to GUDID or EUDAMED?
Blood & tissue	Distinct identification; container labels; ISBT 128 where used.	21 CFR 606.121, 1271.290, 1271.370; ICCBBA ISBT 128	Is ISBT 128 coding supported and licensed? Confirm before buying.

Market requirement checklist

INDUSTRY	WHAT LABELS TYPICALLY NEED	PRIMARY SOURCE	ASK BEFORE YOU DESIGN
Cosmetics	Responsible person, nominal content, durability date or PAO symbol, batch, precautions, INCI ingredients.	Reg. (EC) 1223/2009 Art. 19 & Annex VII; US 21 CFR 701, MoCRA	Is the INCI list built from the approved formula?
Consumer products	Manufacturer identification, model/batch, warnings for covered products, net quantity.	CPSC (covered products); FTC FPLA; EU GPSR 2023/988	Which product categories carry mandatory tracking or warning labels?
Chemicals	Product identifier, signal word, hazard pictograms and statements, precautionary statements, supplier details; SDS.	OSHA 29 CFR 1910.1200(f) & App. C; EU CLP 1272/2008 (revised by 2024/2865)	Where does classification come from — your SDS author or the software?
Agricultural chemicals	The EPA-approved label text, registration and establishment numbers; CLP in the EU.	EPA FIFRA, 40 CFR 156; Reg. (EC) 1107/2009	Is the approved label text locked to the registration revision?
Plastics & resins	Grade, lot, customer spec; hazard labels only where hazardous; food-contact declarations are documents.	EU 10/2011; 21 CFR 174–178; ASTM D7611 (voluntary)	Do CoAs and labels share the same lot data?
Cannabis & hemp	Jurisdiction-specific symbols, warnings and potency format; tracking IDs where required.	Canada Cannabis Regulations Part 7; state rules; FDA for hemp foods	Which jurisdictions, and which track-and-trace system?
Pet food	Product name, guaranteed analysis, ingredients, nutritional adequacy statement, net quantity.	21 CFR 501; AAFCO model regulations (state feed laws); Reg. (EC) 767/2009	Are guaranteed-analysis values tied to the approved formula?
Shipping (all industries)	SSCC on every logistic unit; content, count, dates and batch as agreed with the customer; transport hazard labels are separate.	GS1 Logistic Label Guideline; 49 CFR / ADR for dangerous goods	Are SSCCs unique, and sent to the customer with the ASN?

Product, shipping and transport labels are different things. A GS1 pallet label identifies a logistic unit; dangerous-goods transport labels (for example flammable liquids or Class 7 radioactive material) are set by transport rules and determined from the shipment. Keep them as separate controlled templates.

Field-mapping worksheet

Complete this for one real product. If a field or symbol has no clear source or owner, that's where label errors start.

FIELD OR ARTWORK ON LABEL	SOURCE RECORD	WHO OWNS IT	CHECKED HOW
Product name and identity statement	_____	_____	_____
GTIN / item code	_____	_____	_____
Ingredients / composition (INCI, formula)	_____	_____	_____
Allergen declaration, per market	_____	_____	_____
Nutrition or Supplement Facts values, serving size and their approved source	_____	_____	_____
Hazard classification, statements and pictograms (from the SDS)	_____	_____	_____
Net quantity or weight	_____	_____	_____
Lot / batch	_____	_____	_____
Production, pack, best-before or expiry dates	_____	_____	_____
Serial number / UDI	_____	_____	_____
Supplier, manufacturer or responsible person	_____	_____	_____
Symbols, logos and certification marks (template artwork)	_____	_____	_____
Customer-specific text	_____	_____	_____
Barcode type and content	_____	_____	_____

RFP questions for any label-system supplier

Ask every supplier the same questions and note the evidence they show, not just the answer.

Design freedom

- Can we rebuild our own layouts, including symbols, logos and multi-language text?
- Which barcode types are supported (EAN/UPC, GS1-128, GS1 DataMatrix, QR)?
- Can one product have layouts per market or customer?

Data

- Which values can be connected to records, and can anything still be typed at print?
- Are allergen, nutrition and composition statements built from the approved recipe or formula?
- Is the human-readable text generated from the same data as the barcode?

Integration

- How does it exchange data with our ERP, WMS and LIMS?
- Can a held or rejected lot be prevented from printing?

Control and records

- How are revisions approved, and is the revision used recorded on the batch?
- Are electronic signatures and audit trails included in our plan?
- How are roles separated between design, approval and printing?

Printing

- Which printer languages and models are supported?
- Is there a pack-out scan check, and what happens on a mismatch?

Specialist scope and deployment

- Who generates serials; are commissioning, aggregation or verification included?
- How are UDI submissions to GUDID or EUDAMED handled?
- Are ISBT 128 or dangerous-goods transport labels in scope?
- Which deployment options, and how are updates validated?

13 • EVALUATION

Final evaluation checklist

Score each system 0–3 during demonstrations (0 = not shown, 3 = shown with your own label).

AREA	WHAT TO SEE DEMONSTRATED	SYSTEM A	SYSTEM B
Your label, rebuilt	One of your real layouts, with its symbols and artwork.	_____	_____
Connected values	Nearly every value filled from records; nothing typed.	_____	_____
Market variants	Same product, two markets, correct wording each.	_____	_____
Barcode accuracy	Printed sample scanned; content matches text.	_____	_____
Revision & approval	Change approved and signed; old revision blocked.	_____	_____
Audit trail	Who changed, approved and printed what.	_____	_____
Pack-out check	Wrong label caught and recorded.	_____	_____
Printer fit	Your printer models and stock.	_____	_____
Traceability	Printed label back to lot and batch record.	_____	_____
Specialist scope	Serial, UDI, ISBT 128, transport-label scope stated.	_____	_____
Total		_____	_____

Where V5 fits

- Drag-and-drop designer: text, shapes, barcodes (such as Code 128, GS1-128, QR and DataMatrix) and merge fields; symbols and artwork where supported. AI can suggest a draft layout that a person edits and approves.
- Recipe label preview builds the allergen declaration in your country's wording; recipes build nutrition from ingredient data, allowing for process loss.
- Pack-out barcode checks where your recipe and procedure configure them; approved artwork revision on the batch record; prints and reprints recorded; output to printers such as ZPL/EPL devices; SSCC pallet labels with EDI & ASN. Electronic signatures in Professional and Enterprise.
- **Confirm in evaluation:** US Nutrition/Supplement Facts output, EAN/UPC, your printers; serial commissioning, UDI submissions, ISBT 128 and transport labels are not described here. Your people decide label wording and symbols.

Rebuild one of your own labels. Start a 7-day free trial, no card required, at v5ultimate.com — or ask us to walk through your layouts and markets.

REFERENCES

Sources and where to read them

Primary sources behind this guide, reviewed 1 October 2026. Laws and regulations change: check the current version before you design. This guide is not legal or regulatory advice.

Laws and regulations (legally binding where they apply)

- **US 21 CFR Part 11 (electronic records and signatures)** — www.ecfr.gov/current/title-21/chapter-I/subchapter-A/part-11
- **US 21 CFR Part 101 (food labeling, incl. 101.9 Nutrition Facts, 101.36 Supplement Facts)** — www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-101
- **US 21 CFR Part 201 (drug labeling)** — www.ecfr.gov/current/title-21/chapter-I/subchapter-C/part-201
- **US 21 CFR Part 211 (drug CGMP, incl. labeling control)** — www.ecfr.gov/current/title-21/chapter-I/subchapter-C/part-211
- **US 21 CFR Part 801 (device labeling, incl. 801.15 symbols, 801.20 UDI)** — www.ecfr.gov/current/title-21/chapter-I/subchapter-H/part-801
- **US 21 CFR Part 820 (device quality management)** — www.ecfr.gov/current/title-21/chapter-I/subchapter-H/part-820
- **US OSHA 29 CFR 1910.1200 (hazard communication)** — www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200
- **EU Regulation 1169/2011 (food information to consumers)** — eur-lex.europa.eu/eli/reg/2011/1169/oj
- **EU Regulation 1223/2009 (cosmetic products)** — eur-lex.europa.eu/eli/reg/2009/1223/oj
- **EU Regulation 1272/2008 (CLP: classification, labelling, packaging)** — eur-lex.europa.eu/eli/reg/2008/1272/oj
- **EU Regulation 2017/745 (medical devices)** — eur-lex.europa.eu/eli/reg/2017/745/oj
- **EU Delegated Regulation 2016/161 (medicine safety features)** — eur-lex.europa.eu/eli/reg_del/2016/161/oj

Official guidance (explains how regulators read the rules)

- **FDA Food Labeling Guide** — www.fda.gov/regulatory-information/search-fda-guidance-documents/guidance-industry-food-labeling-guide
- **FDA Dietary Supplement Labeling Guide** — www.fda.gov/food/dietary-supplements-guidance-documents-regulatory-information/dietary-supplement-labeling-guide
- **FDA Food Allergen Labeling Q&A, Edition 5** — www.fda.gov/regulatory-information/search-fda-guidance-documents/guidance-industry-questions-and-answers-regarding-food-allergen-labeling-edition-5
- **FDA Use of Symbols in Labeling (devices)** — www.fda.gov/medical-devices/device-labeling/use-symbols-labeling
- **FDA UDI Basics** — www.fda.gov/medical-devices/unique-device-identification-system-udi-system/udi-basics
- **OSHA Hazard Communication, Appendix C (label elements)** — www.osha.gov/hazcom/appendix-c
- **UK Food Standards Agency allergen guidance** — www.food.gov.uk/business-guidance/allergen-guidance-for-food-businesses
- **EudraLex Volume 4 (EU GMP, incl. Annex 11)** — health.ec.europa.eu/medicinal-products/eudralex/eudralex-volume-4_en
- **NRC labeling of radioactive material** — www.nrc.gov/education-regulatory-research/the-student-corner/labeling
- **HHS REMM radioactive shipping labels and placards** — remm.hhs.gov/transportation_hazard_id.htm

Voluntary standards (binding only when a regulator or customer adopts them)

- **GS1 General Specifications (GTIN, SSCC, Application Identifiers)** — ref.gs1.org/standards/genspecs/
- **GS1 Logistic Label Guideline** — ref.gs1.org/guidelines/logistic-label/
- **ISO 15223-1:2021 medical device symbols** — www.iso.org/standard/77326.html
- **ISO 13485:2016 medical device quality management** — www.iso.org/standard/59752.html
- **ICCBBA ISBT 128 (blood, cells, tissue)** — www.isbt128.org

ISO standards are sold by ISO and national standards bodies; the links go to the official catalogue entry. Symbol drawings in this guide are V5's own simplified renditions for illustration; production artwork should come from your licensed copy of the standard.