Batch Yield and Loss Tracker

How-to guide: what the workbook does, how to use it and what every number means. mfgcalcs.com

Batch Yield and Loss Tracker

Log every batch's input, good output and off-spec and see yield, process loss and the shortfall to target by product, vessel and week.

For: Production managers, process engineers and plant managers in chemicals, coatings, adhesives, food and other batch plants.

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Quick start

1. On Setup, type your plant name, currency and mass unit, then replace the example products (with their target yields), vessels and loss categories.
2. On Batch Log, add one row per completed batch: batch input, good released and any off-spec set aside, with the main loss category.
3. Read the Check column: anything other than OK names the problem.
4. Open the Dashboard and use the product, vessel and date filters to look at one product, one vessel or one week.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	Your plant, currency and mass unit, and the lists that feed the dropdowns.
Batch Log	One row per completed batch: input, good released and off-spec, with yield and loss.
Dashboard	Yield, process loss and the shortfall to target, for the products, vessels and dates you choose.
Method	How every number is calculated, with assumptions, limits and sources.
Verify	Self-check: the workbook's formulas recomputed on fixed inputs against an independent reference.
About MFG Calcs	Everything MFG Calcs offers, free: calculators, templates, tariff tools, data and the Calkee AI helper.

What each number means

Quantity	How it is calculated	Units
Batch input, good released and off-spec	Typed per row, all in the mass unit chosen on Setup.	mass
Yield	Good released / batch input.	%
Process loss	Batch input - good released.	mass

Quantity	How it is calculated	Units
Unaccounted loss	Process loss - off-spec: the loss that was not weighed (hold-up, filtration, spills, samples, evaporation).	mass
Target good	Target yield x batch input, with the product's target from the Products list.	mass
Shortfall to target	Target good - good released; negative when the batch beat its target.	mass
Gap to target	(Target yield - yield) x 100, in percentage points; positive means below target.	pts
Loss value (est.)	Process loss x the product's material value from Setup: an estimate of what the lost material was worth.	currency
Weighted target	Sum of target good / sum of batch input over the batches in view: the yield the targets ask for, weighted by batch size.	%
Loss and allowed loss (% of input)	Process loss / batch input, and 1 - target yield (1 - weighted target for weeks); plotted on the Dashboard charts.	%
Target yield and material value	Looked up from the Products list on Setup by product (INDEX/MATCH). Blank means the product is not on the list, and the Check column says so.	-
Dashboard roll-ups	Every figure is a SUMIFS over the Batch Log restricted to rows whose View date is filled in (inside the filters), e.g. yield = SUMIFS(good) / SUMIFS(input).	-
Loss category Pareto	Process loss per main loss category, ranked largest first by COUNTIF ranks (ties keep list order), with each category's share and the cumulative share. Helper columns AO:AQ on the Dashboard (hidden) hold the unsorted values and ranks.	mass, %

Assumptions, limitations, sources and the self-check (the Verify sheet, which recomputes the workbook's formulas on fixed test inputs) are in the workbook. The last page shows the Dashboard with the example data for Kestrel Bay Chemicals, a fictional business.

Free from MFG Calcs - keep this credit when you share it.

Engineering estimates for planning and improvement work. Verify the results against your own process, data and standards before you rely on them.

Batch Yield and Loss Tracker

Yield, process loss and the shortfall to target, for the products, vessels and dates you choose.

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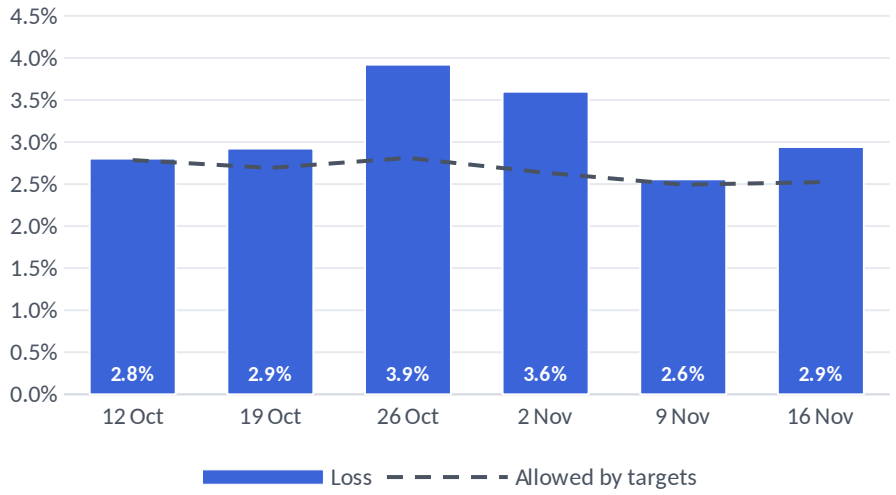
Product		From	
Vessel		To	

Showing 108 batches. Leave the filters blank to include everything; dates are inclusive. Masses in kg.

BATCH YIELD	PROCESS LOSS (kg)	SHORTFALL TO TARGET (kg)	VALUE OF LOSS (USD, EST.)
96.87%	**19,280.0**	**2,889.7**	**49,218**
Target 97.34%	Batch input - good released	Negative = ahead of target	Loss x material value
Near target			

Process loss by week (% of input)



Process loss by product (% of input)

