www.labcup.net

LABCUP

INVENTORY MANAGEMENT SOFTWARE

For Users

Central Washington University

7th April 2021

How to access …

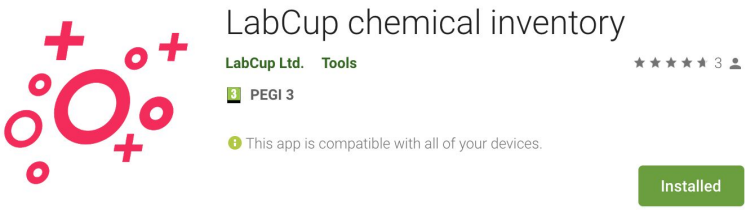
- Web address

- Web browser

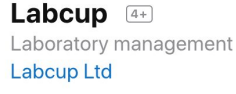
- Login: Central auth credentials

How to access …

- iPhone, iPad App (free)



- Android App (free)



Host: cwu.us.labcup.net

Overview

- **User Tasks Overview**

Read

- **User Menu**
- **Finding Chemicals**

Write

- **Adding Chemicals**
- **Label Printing**
- **Reorder Threshold**
- **Removing Chemicals**
- **Moving Chemicals**
- **Stock Taking**
- **Storage**

Group Administrator

- **Group User Management**
- **Emergency Page**

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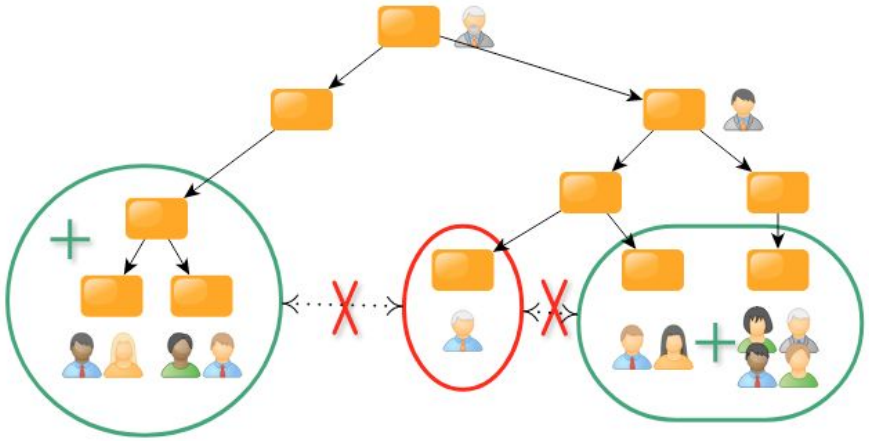
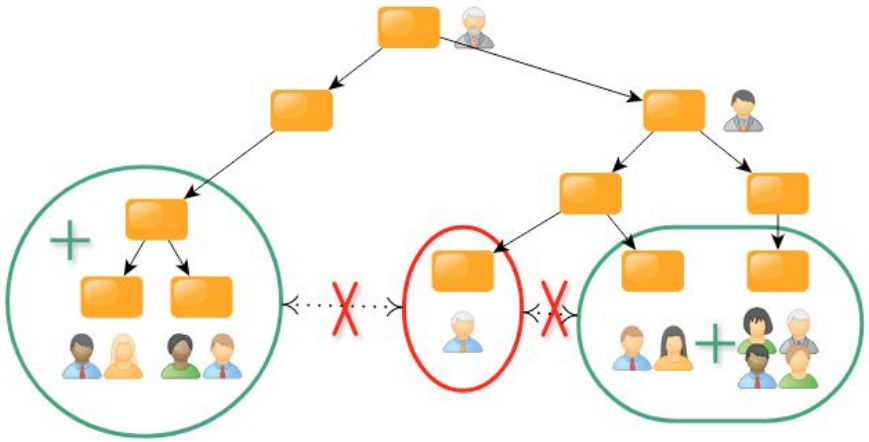
Tasks Overview



- Group has **ownership**
- User has **responsibility**

Tasks Overview



- **Read**
  - Find chemicals
- **Write**
  - Manage Chemicals
  - Find chemicals
- **Administrator**
  - Manage Users
  - Manage Chemicals
  - Find chemicals

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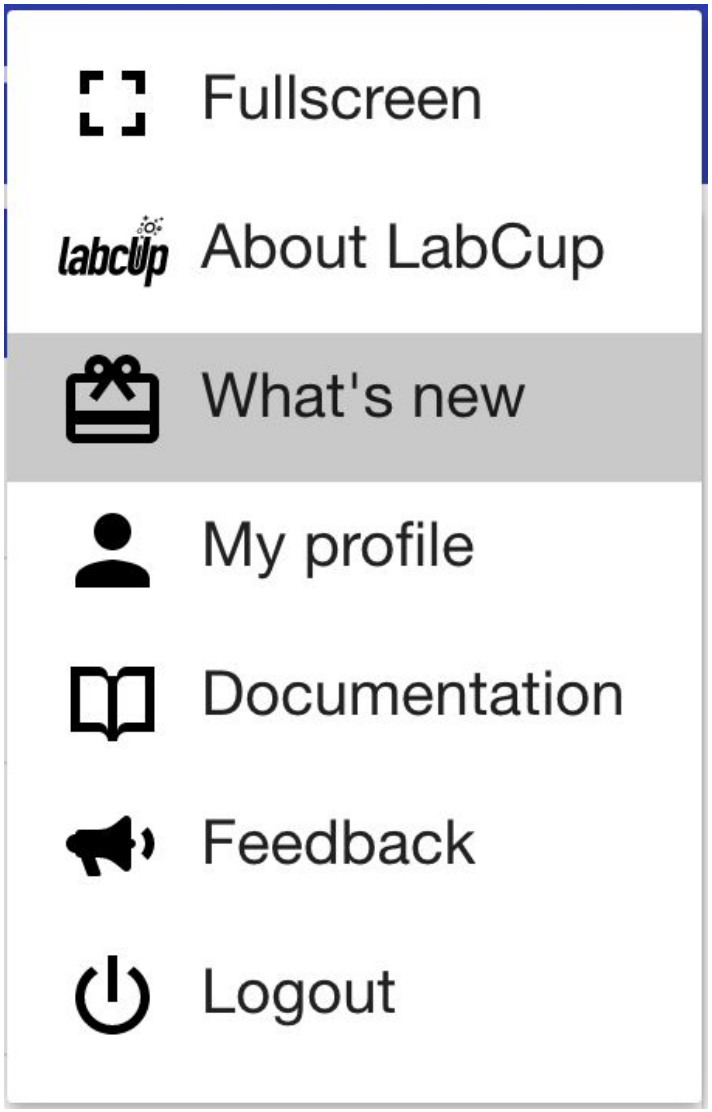
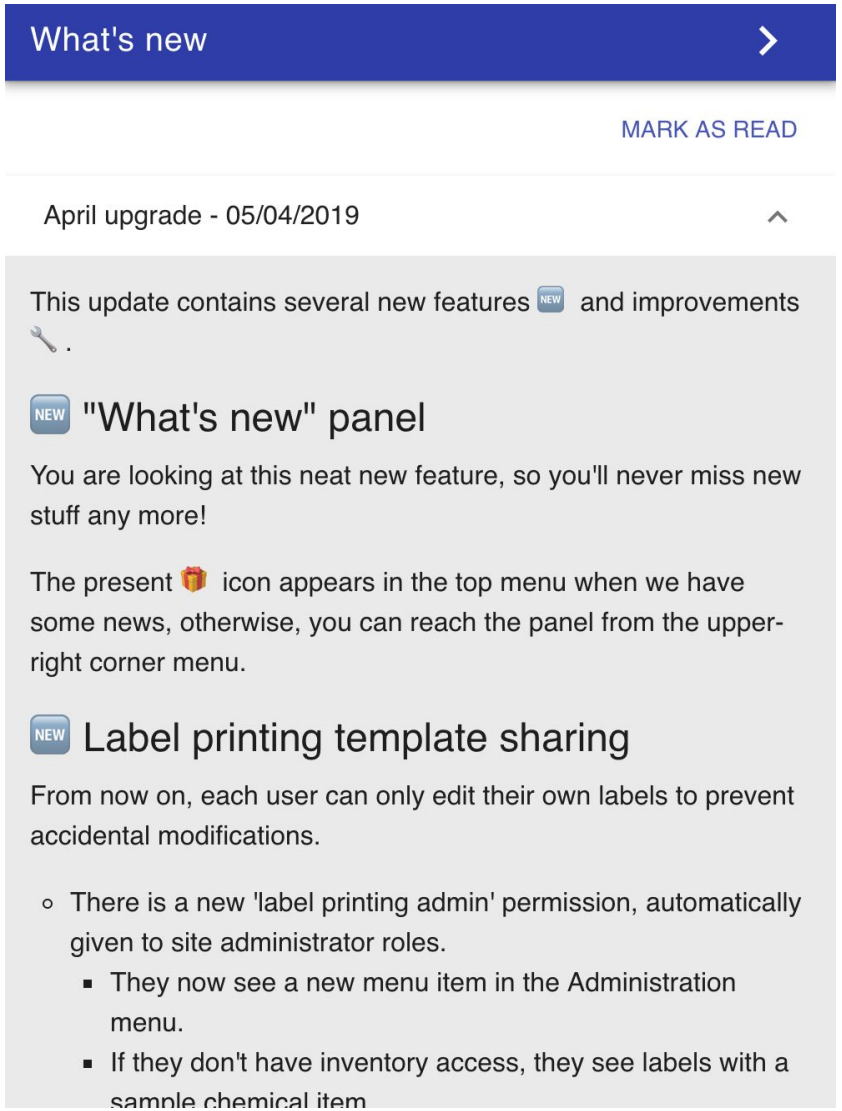
User Menu

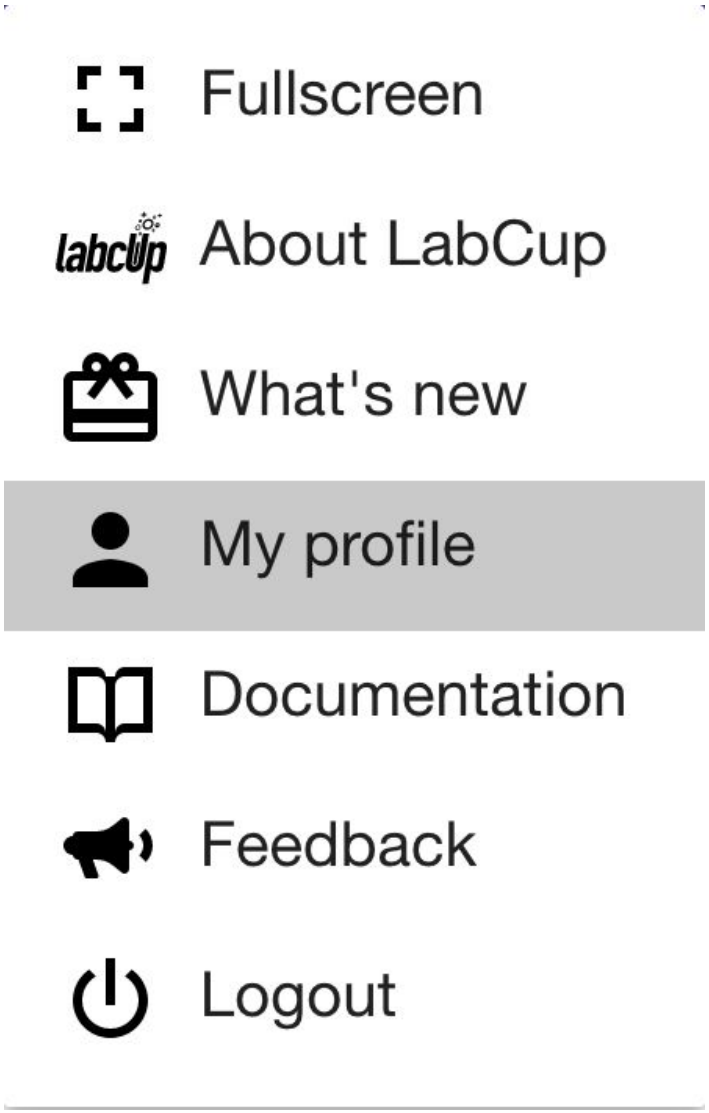
User Menu

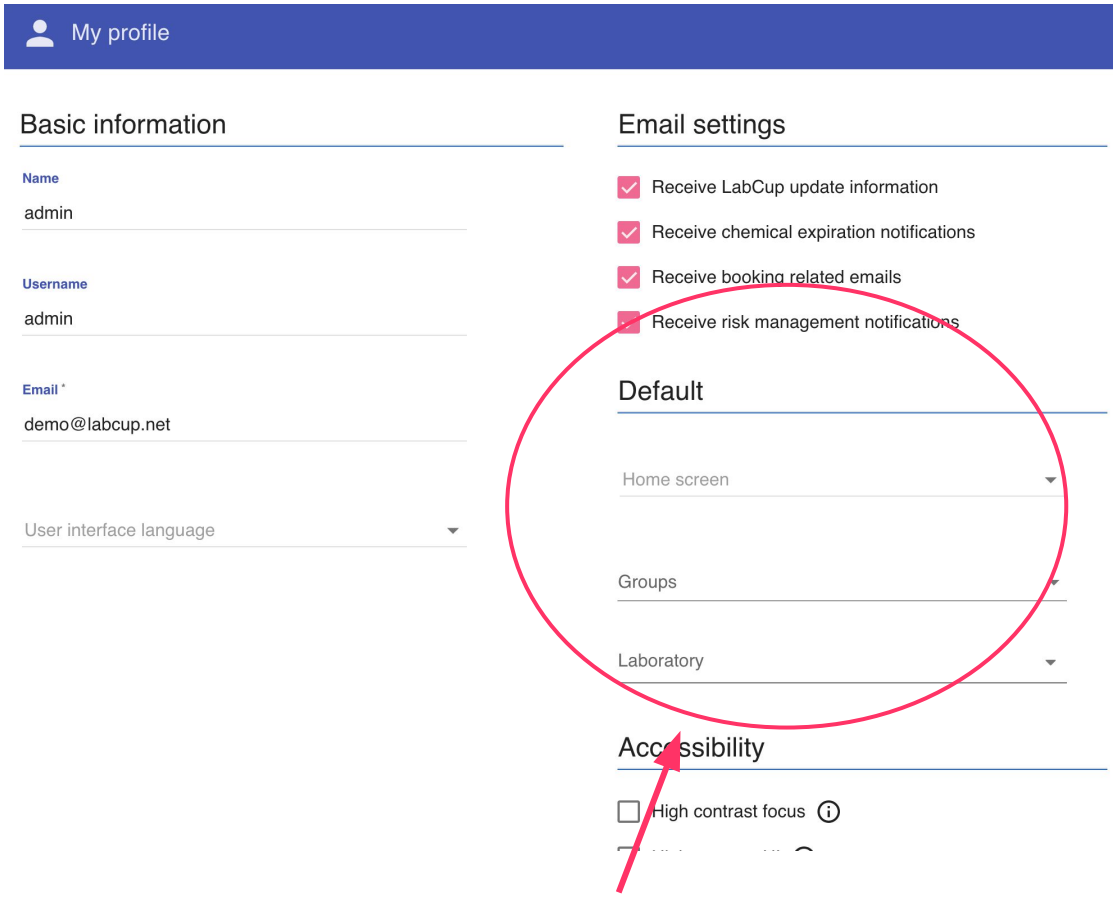
User Menu - What's New





User Menu - My Profile





Default Screen,
Group & Laboratory

User Menu - Documentation

Fullscreen

About LabCup

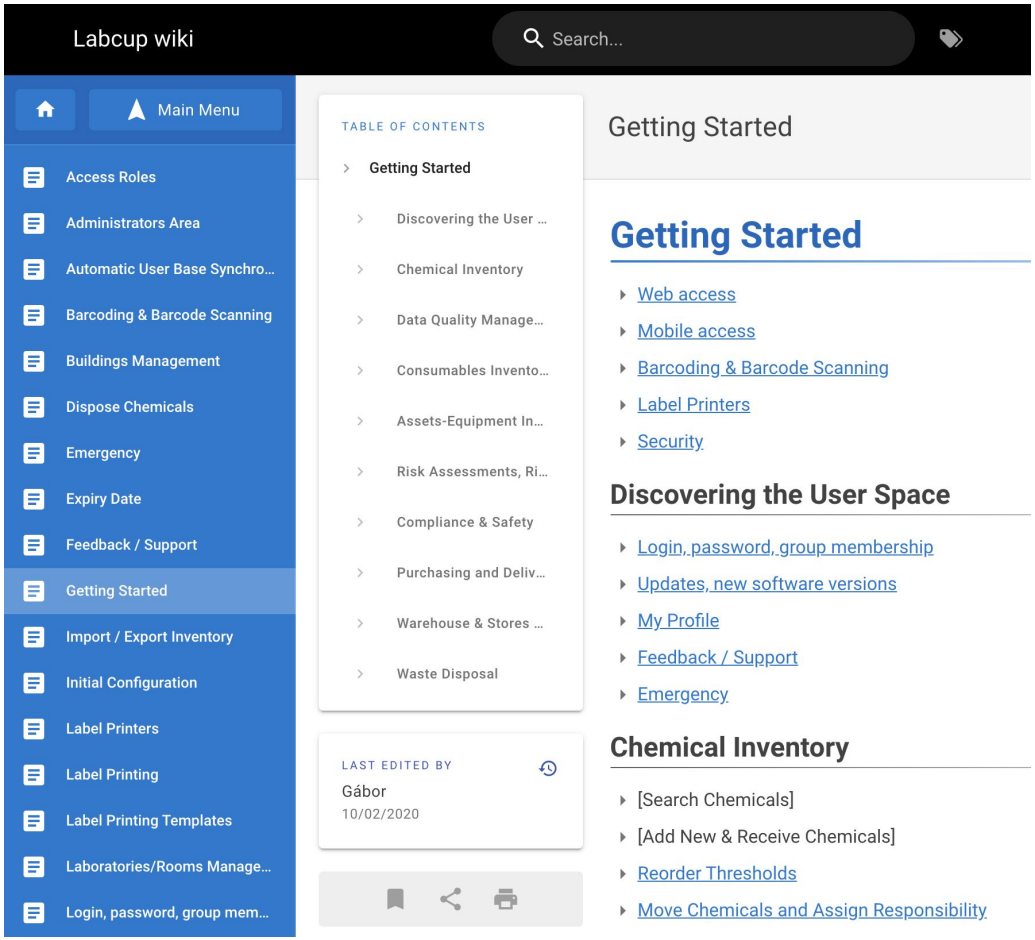
What's new

My profile

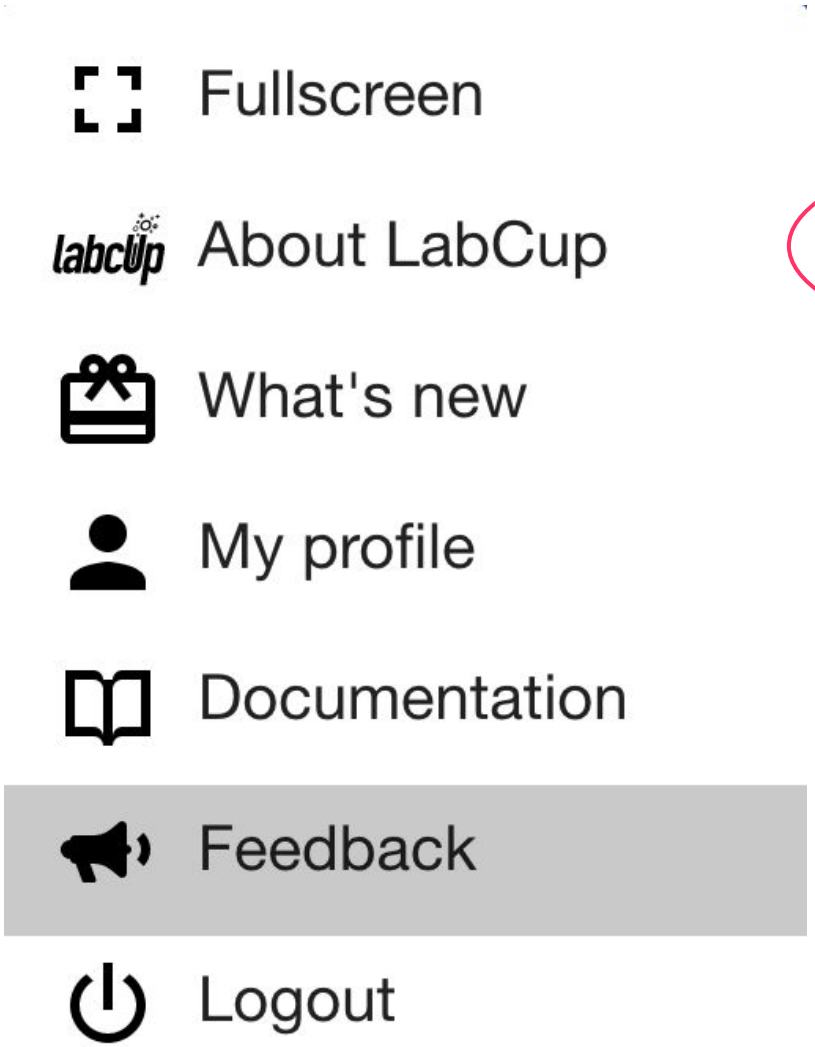
Documentation

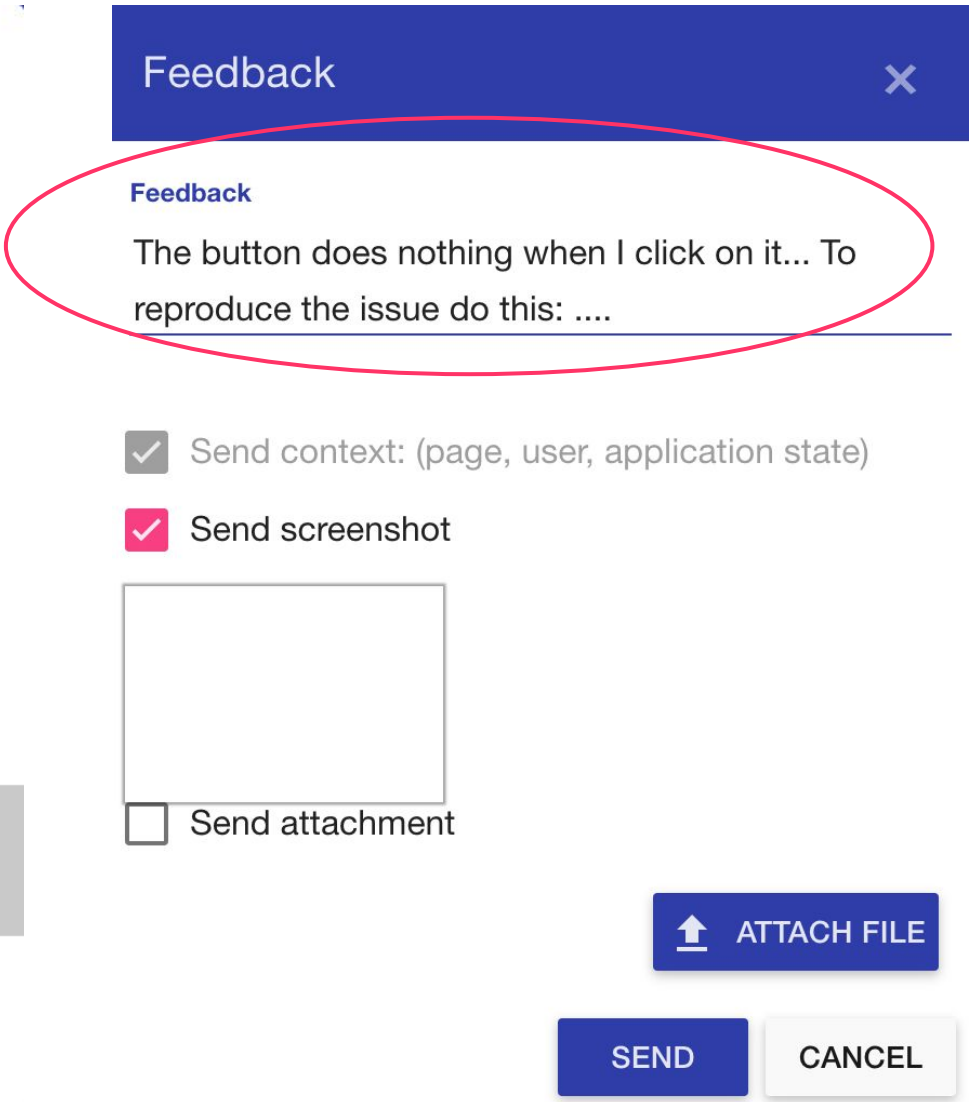
Feedback

Logout



User Menu - Feedback





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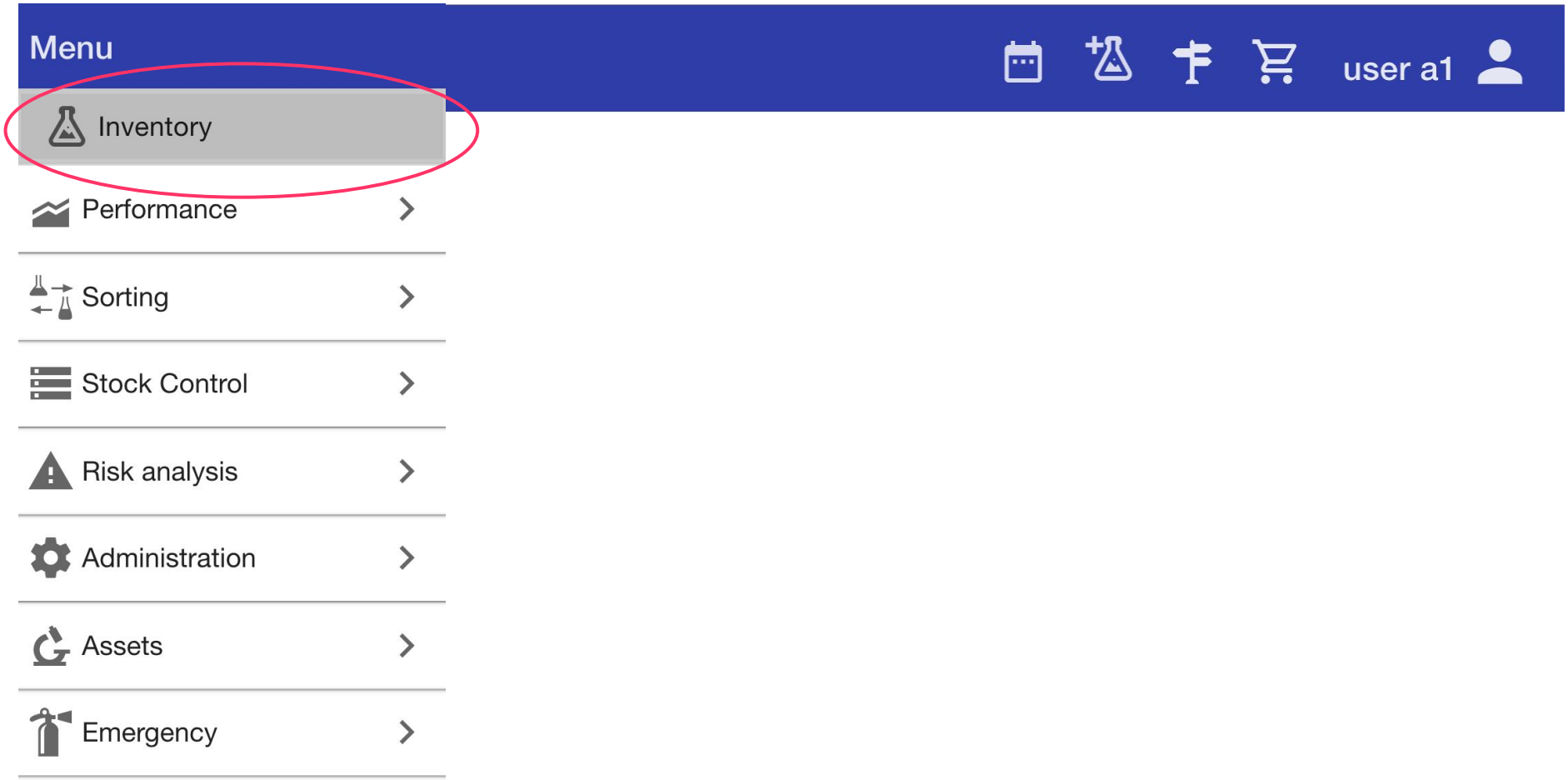
Finding Chemicals

Click for Default Page

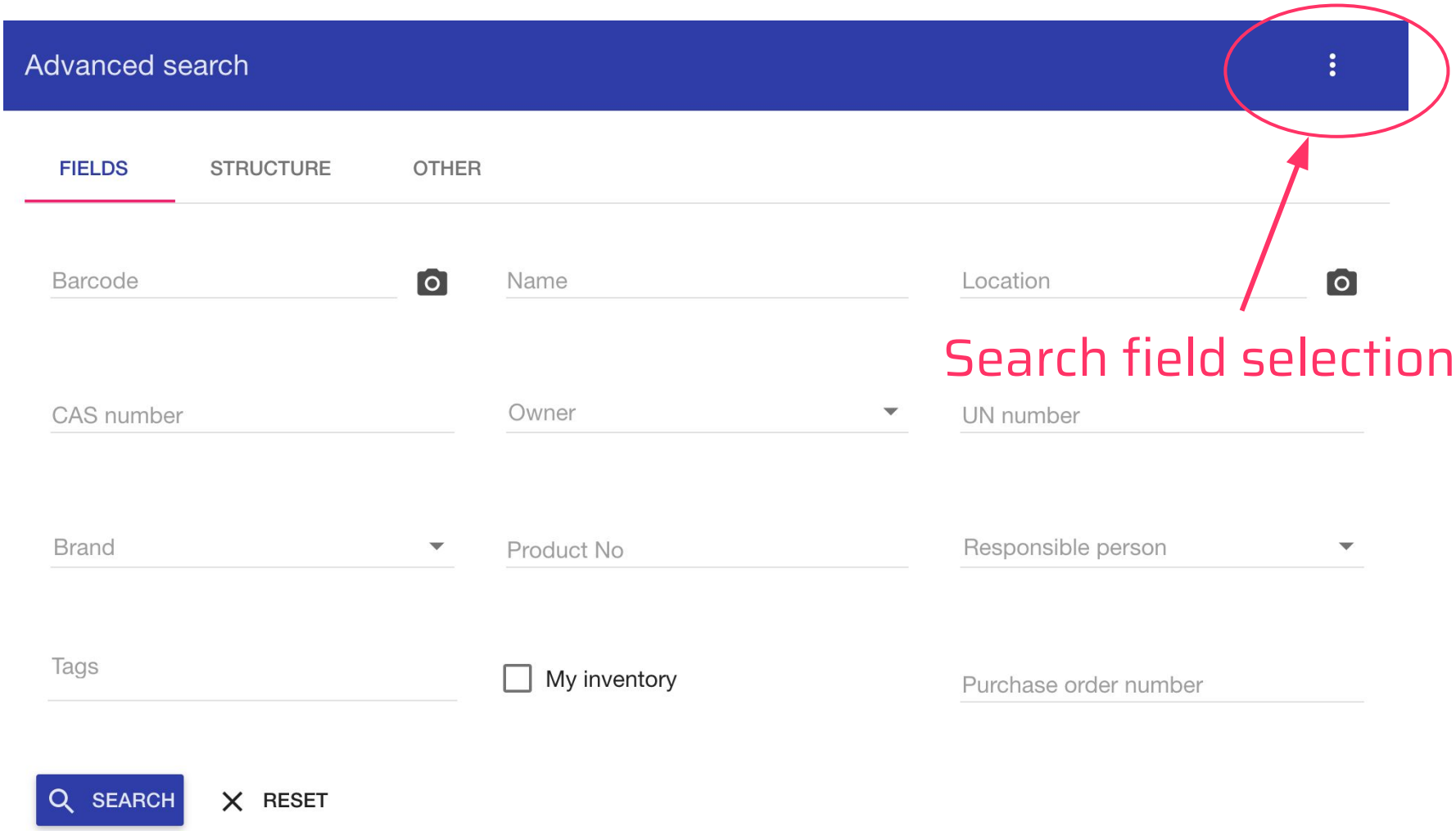
Finding Chemicals

Application Menu

Finding Chemicals



Finding Chemicals - Advanced Search



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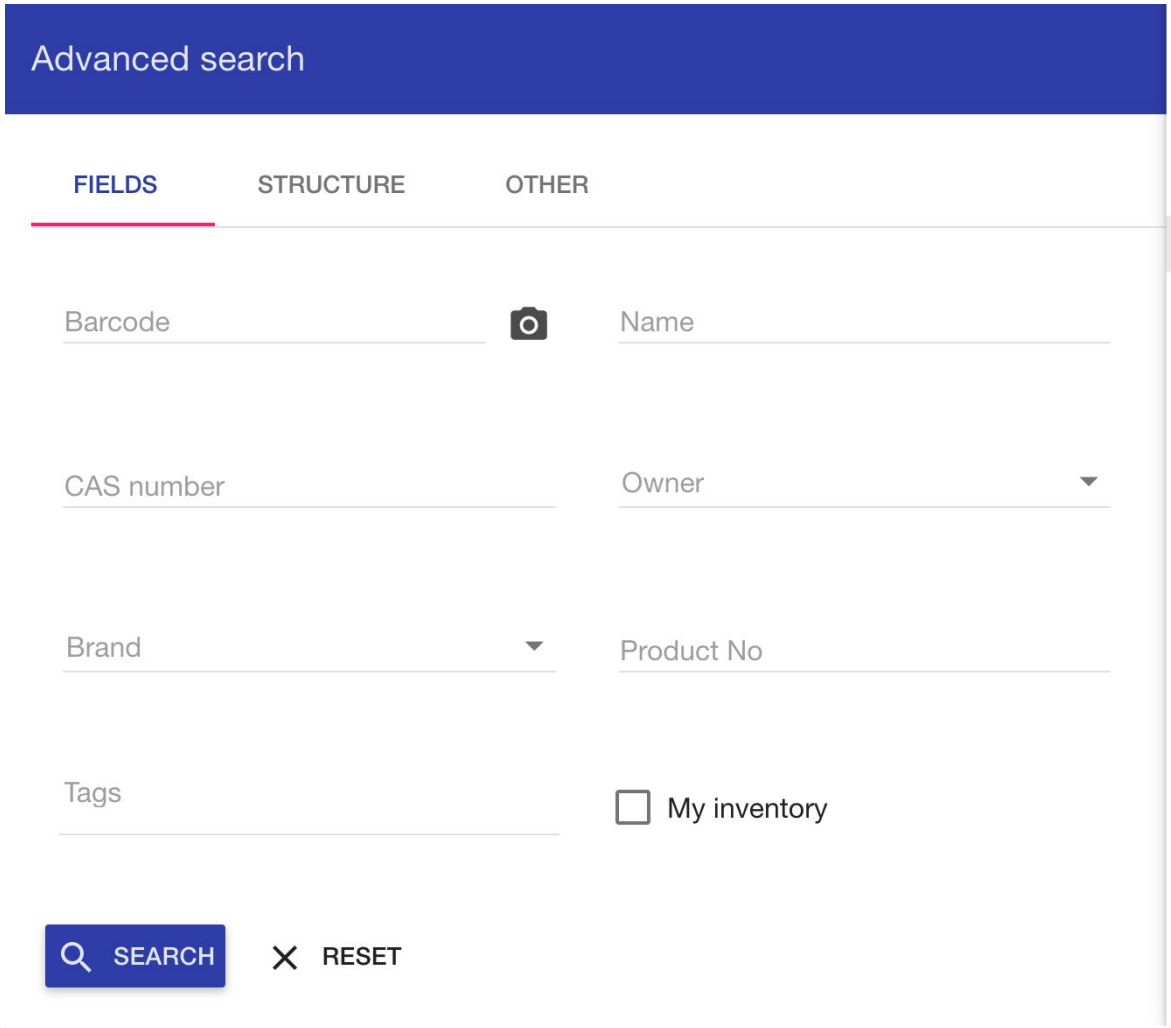
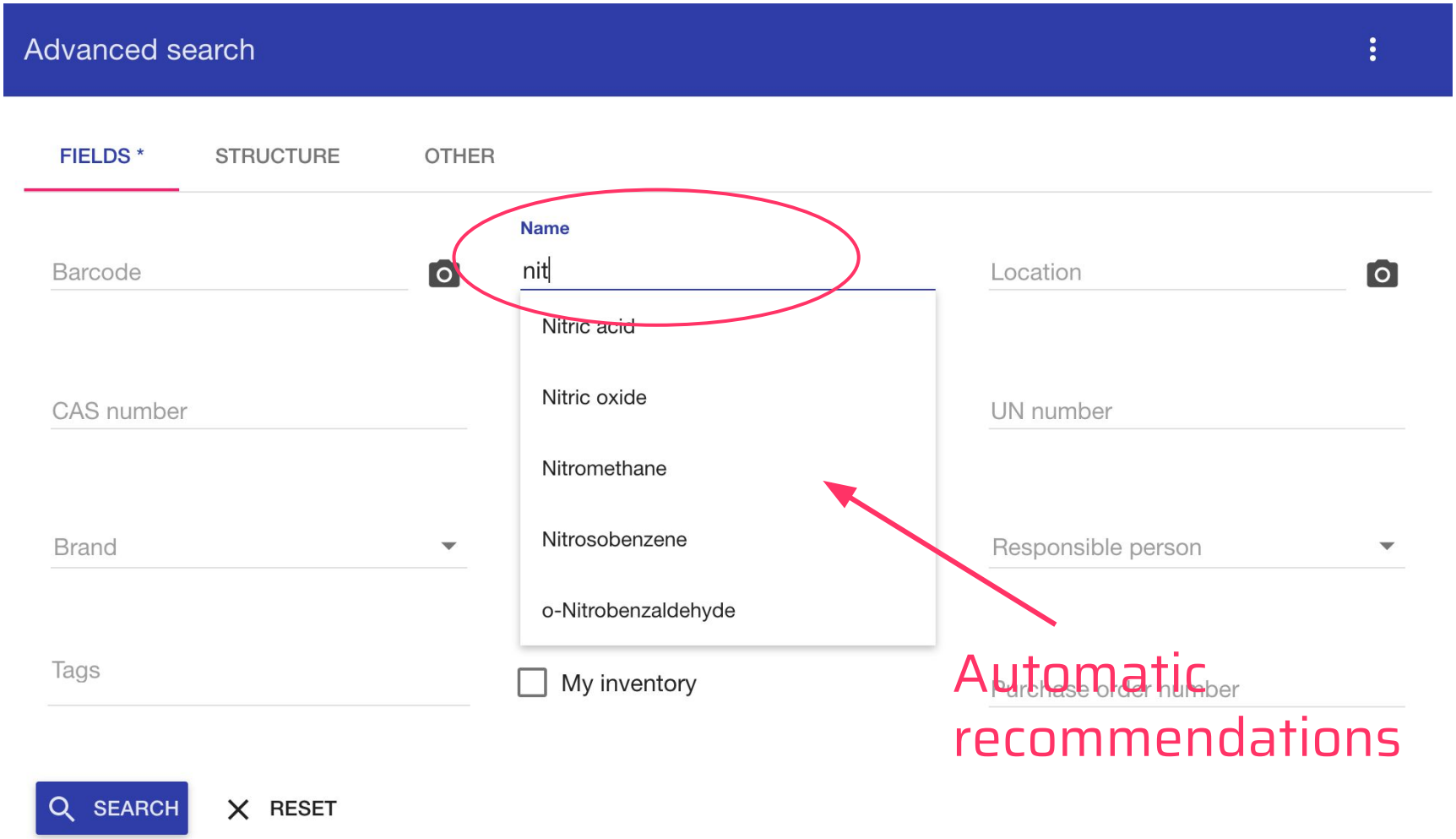


- ✓ Barcode
- ✓ Brand
- ✓ CAS number
- ✓ Name
- Date in
- Expiration
- ✓ Location
- ✓ Sublocation
- Lot number
- ✓ My inventory
- ✓ Owner group
- ✓ Product number
- Quantity
- ✓ Responsible person
- ✓ Tags
- ✓ UN number
- Item type
- ✓ Purchase order number

Finding Chemicals - Advanced Search



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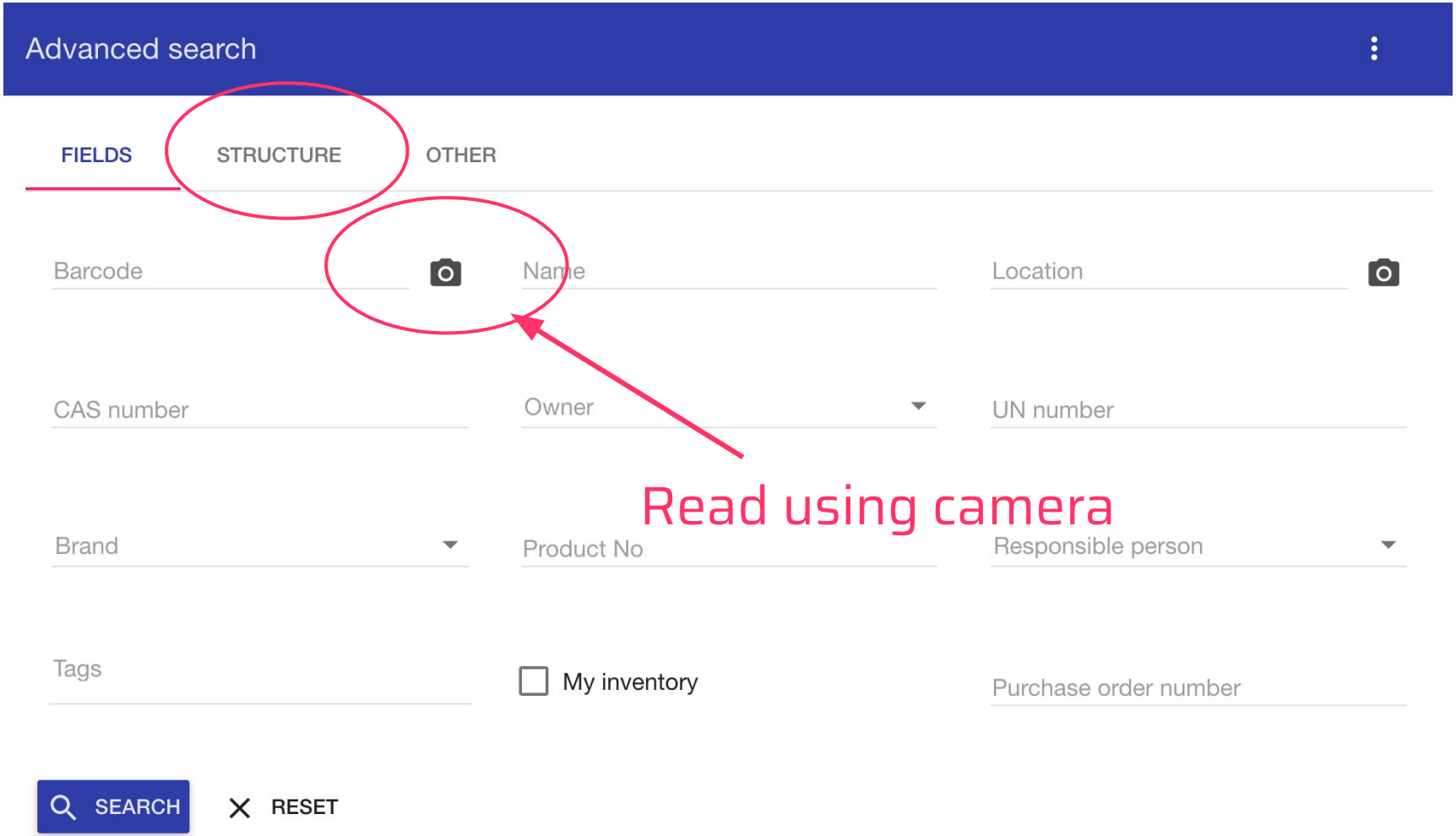

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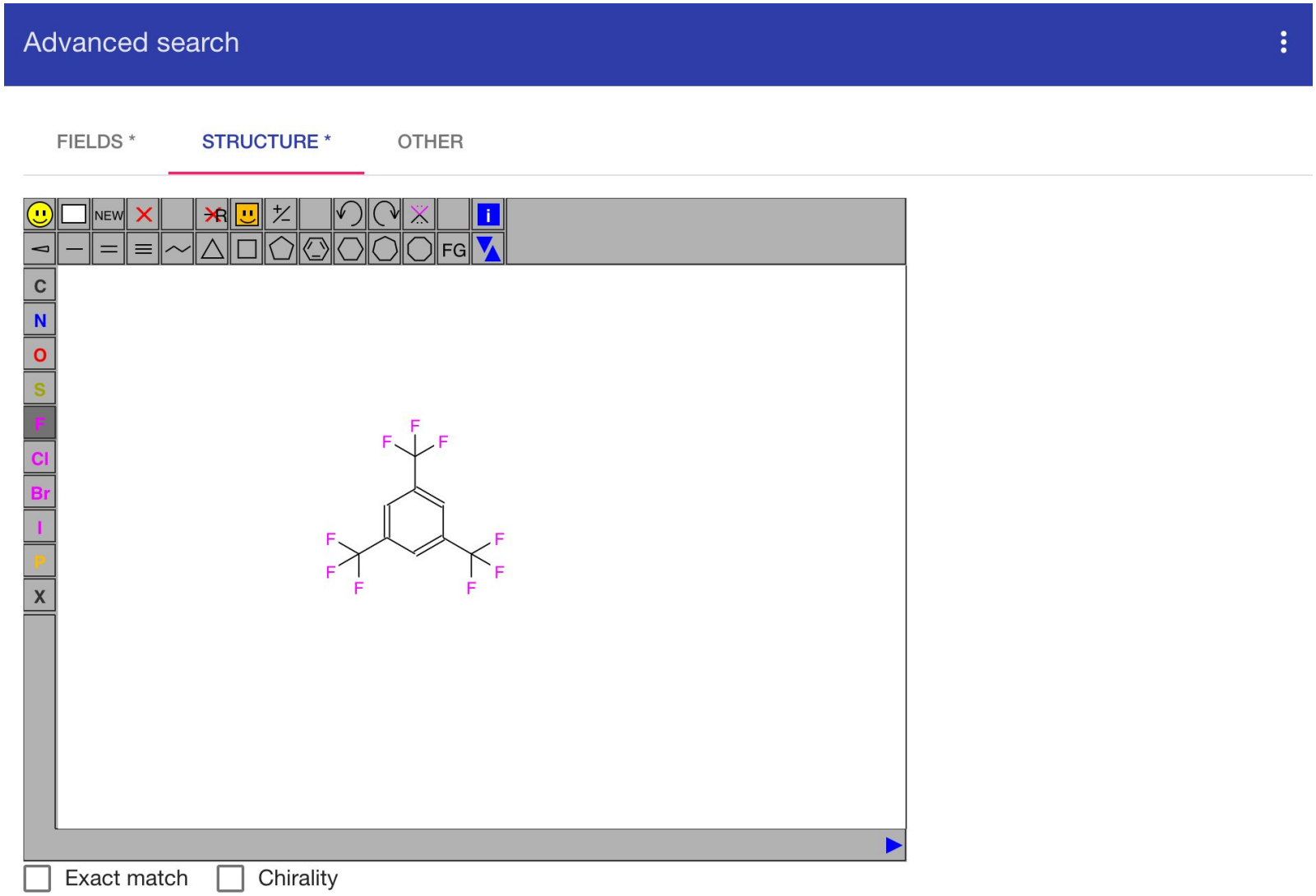

Finding Chemicals - Results

CHEMICALS (34) CELLS (7) CONSUMABLES (5) TISSUES (4) ANTIBODIES (2)

Result (34) EXPORT PRINT

Barcode	Location	Chemical name	CAS number	Product number	Quantity	Hazard labels
101023	Demo building > Lab A2 > Cabinet 2	Formaldehyde solution	50-00-0	Sigma-Aldrich F1635-500ML-D	500ml	RA
101100	Demo building > Lab A1 > Cabinet 1	Bismuth(III) oxide	1304-76-3	Sigma-Aldrich 202827	1kg	
101043	Demo building > Lab A2 > Expiring chemicals	Divinyl acetylene	689-97-4	American Custom Chemicals Corp CHM1016524	100ml	
101045	Demo building > Lab A2 > Expiring chemicals	Potassium amide	17242-52-3	Leancare Ltd. 12345	1kg	
101055	Demo building > Lab A2 > Expiring chemicals	2-Hexanol	26549-24-6	Aldrich 340308	10g	RA
101047	Demo building > Lab A2 > Expiring chemicals	Sodium amide	7782-92-5	Aldrich 208329-250G	250g	RA
101029	Demo building > Lab A2 > Shelf	Potassium Chloride	7447-40-7	SciChem PO035	500g	RA
101053	Demo building > Lab A2 > Expiring chemicals	2-Cyclohexen-1-ol	822-67-3	Aldrich C102652-10G	10g	RA
101052	Demo building > Lab A2 > Expiring chemicals	2-Vinyl pyridine	100-69-6	Aldrich 132292-500ML	500mL	RA
101046	Demo building > Lab A2 > Expiring chemicals	Potassium metal	2023695	Aldrich 679909-20G	20g	RA

Finding Chemicals - Results

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101043	Demo building > Lab A2 > Expiring chemicals	Divinyl acetylene	689-97-4	American Custom Chemicals Corp CHM1016524
101045	Demo building > Lab A2 > Expiring chemicals	Potassium amide	17242-52-3	Leancare Ltd. 12345
101055	Demo building > Lab A2 > Expiring chemicals	2-Hexanol	26549-24-6	Aldrich 340308
101047	Demo building > Lab A2 > Expiring chemicals	Sodium amide	7782-92-5	Aldrich 208329-250G
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- [x] Chemical name
- [x] CAS number
- [x] Product number
- [ ] UN number
- [x] Quantity
- [x] Hazard labels
- [ ] Purity (%)
- [ ] State
- [ ] Responsible person
- [ ] Lot number
- [ ] Tags
- [ ] Expire
- [ ] Date in
- [ ] Hazard code(s)

20g

Finding Chemicals - Results

CHEMICALS (34) CELLS (7) CONSUMABLES (5) TISSUES (4) ANTIBODIES (2)

4 selected

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Finding Chemicals - Results

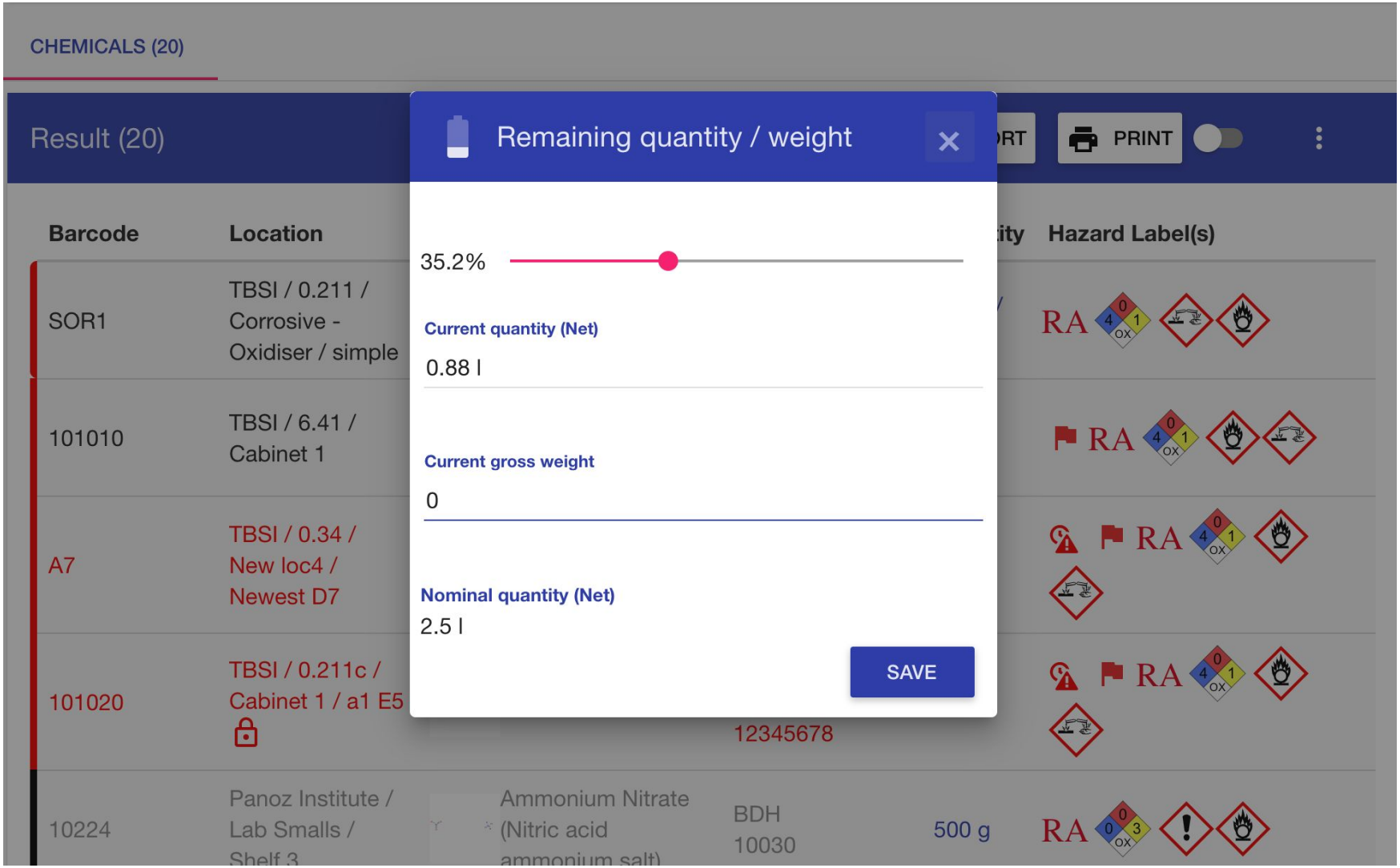
CHEMICALS (20)

Result (20) EXPORT PRINT

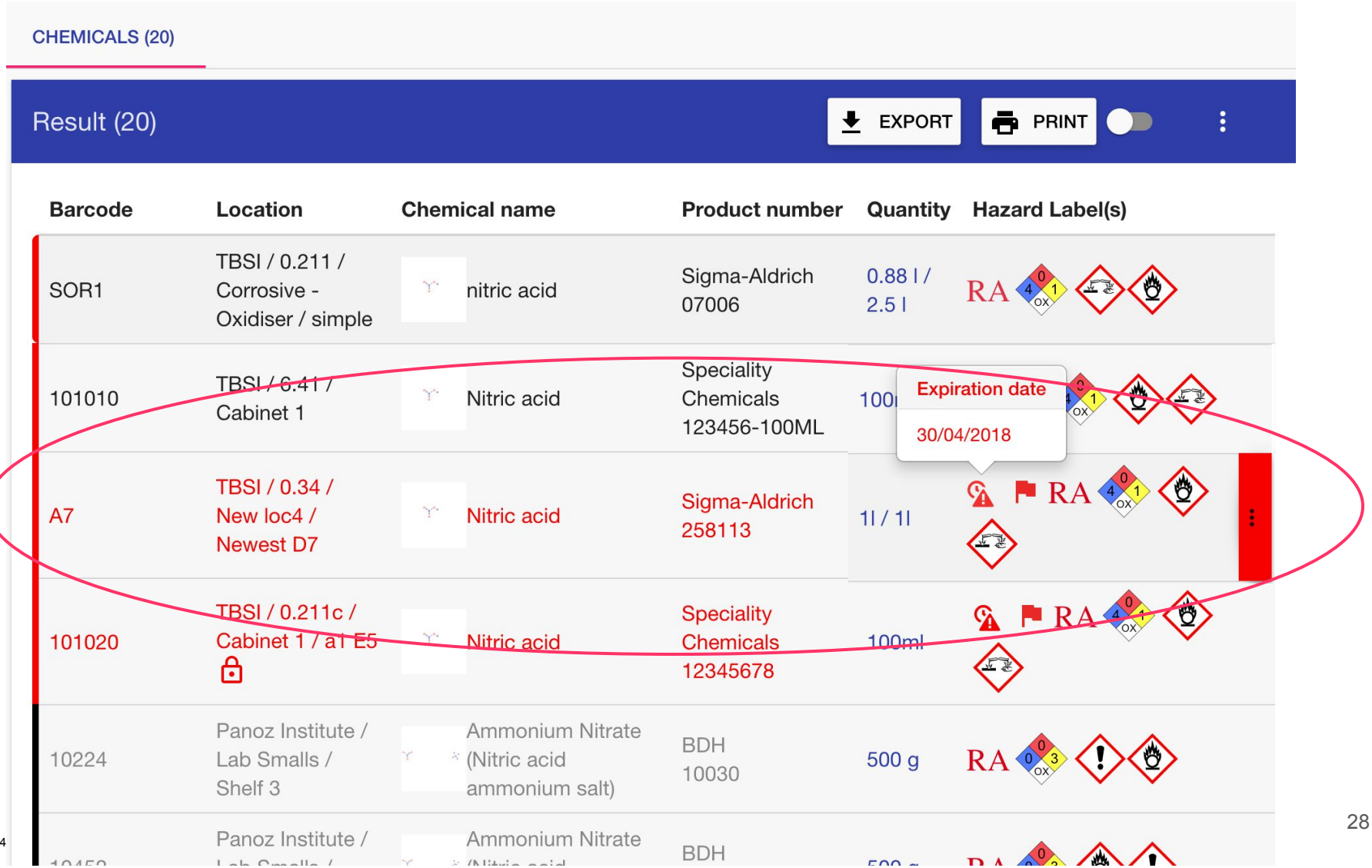
Barcode	Location	Chemical name	Product number	Quantity	Hazard Label(s)
SOR1	TBSI / 0.211 / Corrosive - Oxidiser / simple	nitric acid	Sigma-Aldrich 07006	0.88 l / 2.5 l	
101010	TBSI / 6.41 / Cabinet 1	Nitric acid	Speciality Chemicals 123456-100ML	100ml	
A7	TBSI / 0.34 / New loc4 / Newest D7	Nitric acid	Sigma-Aldrich 258113	1l / 1l	
101020	TBSI / 0.211c / Cabinet 1 / a1 E5	Nitric acid	Speciality Chemicals 12345678	100ml	
10224	Panoz Institute / Lab Smalls / Shelf 3	Ammonium Nitrate (Nitric acid ammonium salt)	BDH 10030	500 g	
	Panoz Institute /	Ammonium Nitrate	BDH		

3004

Finding Chemicals - Results



Finding Chemicals - Results



Finding Chemicals - Results

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CHEMICALS (20)

Result (20) EXPORT PRINT

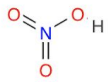
Barcode	Location	Chemical name	Product number	Quantity	Hazard Label(s)
SOR1	TBSI / 0.211 / Corrosive - Oxidiser / simple	nitric acid	Sigma-Aldrich 07006	0.88 l / 2.5 l	RA
101010	TBSI / 6.41 / Cabinet 1	Nitric acid	Speciality Chemicals 123456-100ML	100ml	RA
A7	TBSI / 0.34 / New loc4 / Newest D7	Nitric acid	Sigma-Aldrich 258113	1l / 1l	RA
101020	TBSI / 0.211c / Cabinet 1 / a1 E5	Nitric acid	Speciality Chemicals 12345678	100ml	RA
10224	Panoz Institute / Lab Smalls / Shelf 3	Ammonium Nitrate (Nitric acid ammonium salt)	BDH 10030	500 g	RA
	Panoz Institute /	Ammonium Nitrate	BDH		

Finding Chemicals - Results

Data sheet

OVERVIEW ITEM PRODUCT COMPOUND

Molecular structure



Owner and Location

Owner:	MDG5 Musing Davinci
Responsible person:	Not set (Not set)
Building:	Building 15
Laboratory:	6.41
Location:	Corrosive, Oxidising (R)
Proposed location:	Corrosive, Inorganic Acids (Q)

Names and Identifiers

Barcode:	2343
Brand:	Riedel-de Haen
Product number:	07006
Chemical name on the label:	Nitric acid
CAS number:	7697-37-2
PubChem Compound ID (CID) :	944
Synonyms:	• Nitric acid • NITRIC ACID • Salpetersaeure • Nital • Acidum nitricum • Nitrous fumes • Aqua fortis • Azotic acid • Hydrogen nitrate • Nitryl hydroxide • Engraver's acid • Nitric acid solution • RFNA • Nitric acid, anhydrous • Red fuming nitric acid • Azotowy kwas [Polish] • Salpetersaure [German] • Acide nitrique [French] • Acido nitrico [Italian] • Acido nitrico [Spanish]

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Group Administrator

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Adding Chemicals - To dispose

Damaged Container

Damaged Label

Expired

Adding Chemicals - Required data

* **Barcode, Owner, Location** → Inventory entry

Adding Chemicals - Required data

CAS, Chemical name → Synonyms, Chemical Structure

*** Barcode, Owner, Location** → Inventory entry

Adding Chemicals - Required data

Brand, Product number → SDS, Safety information
Chemical properties
Long term storage

CAS, Chemical name → Synonyms,
Chemical Structure

*** Barcode, Owner, Location** → Inventory entry

Adding Chemicals

- Import from MS Excel / csv
- Add / Edit Chemicals (Primarily desktop)
- Quick add (Primarily mobile phone)
- API

Adding Chemicals

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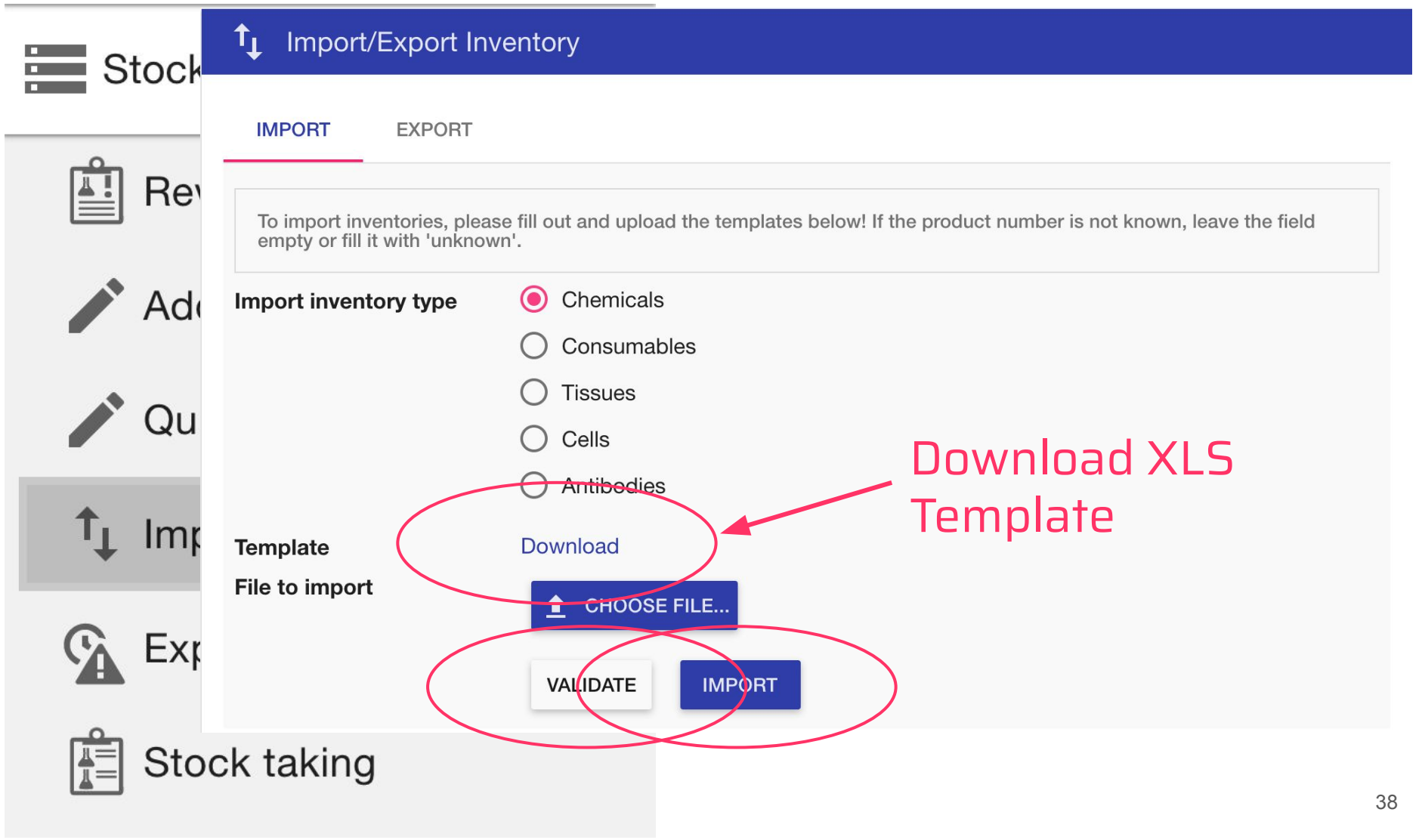
Adding Chemicals - Import from Excel



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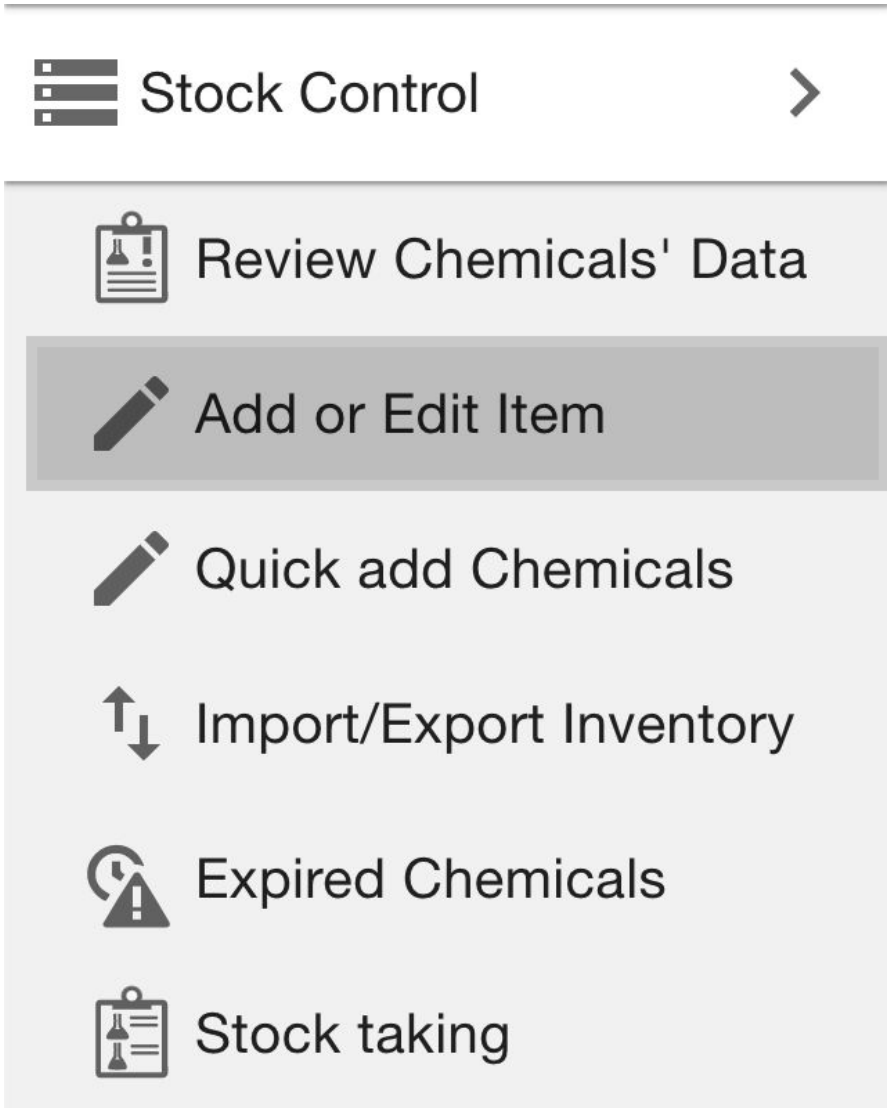
Adding Chemicals - Add / Edit Chemicals



- Wizard to fully add and approve chemicals one-by-one
- If existing barcode is entered -> Edit

Adding Chemicals - Barcoding

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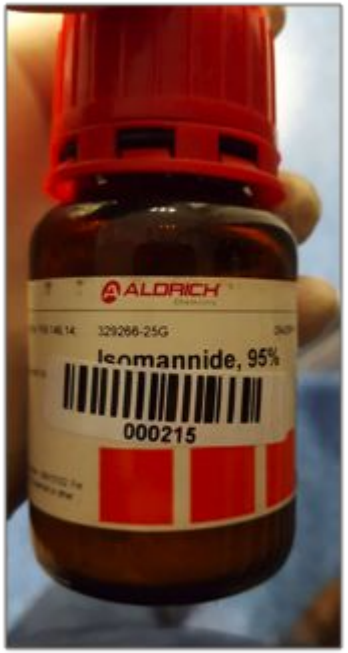
Good

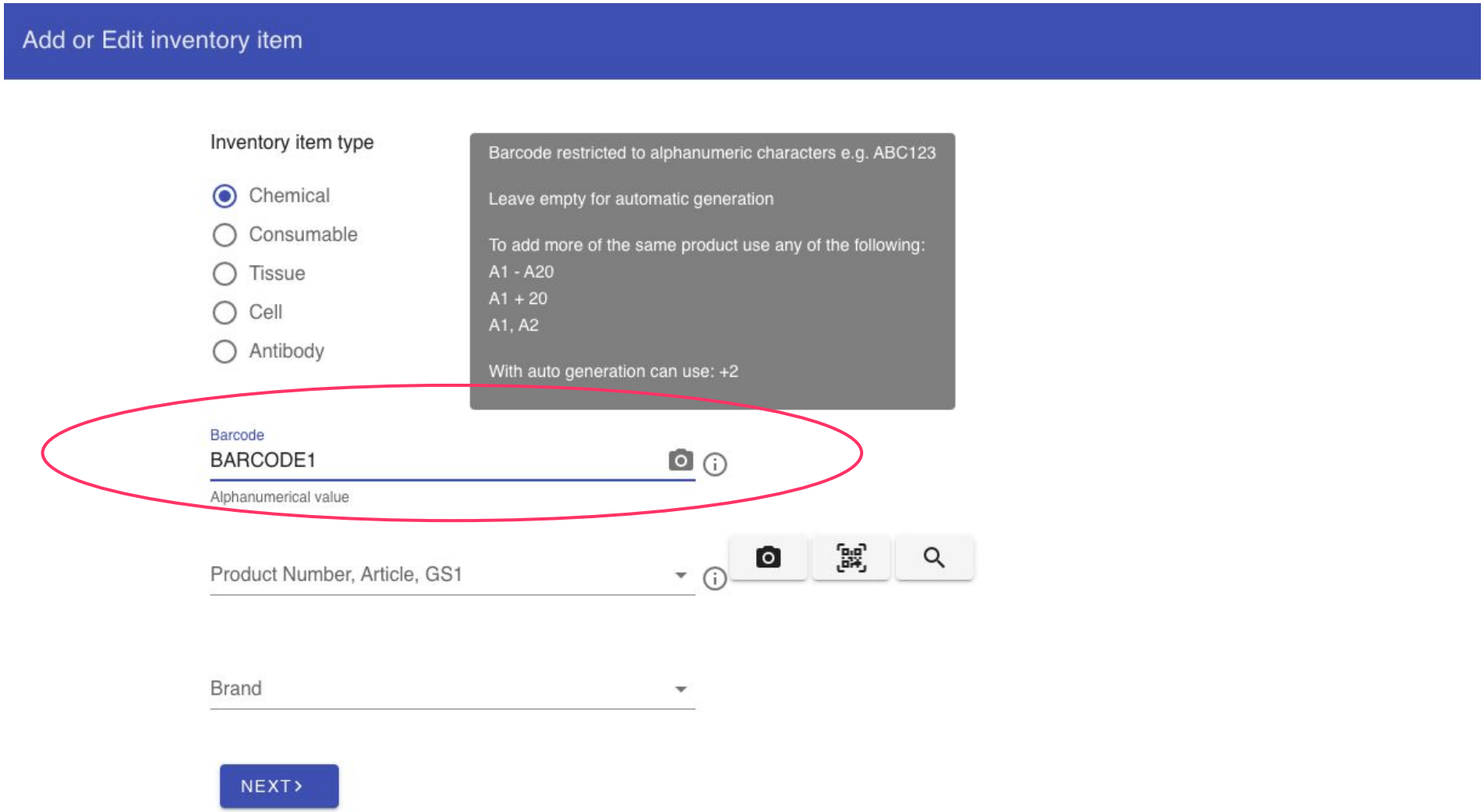
Covering Information



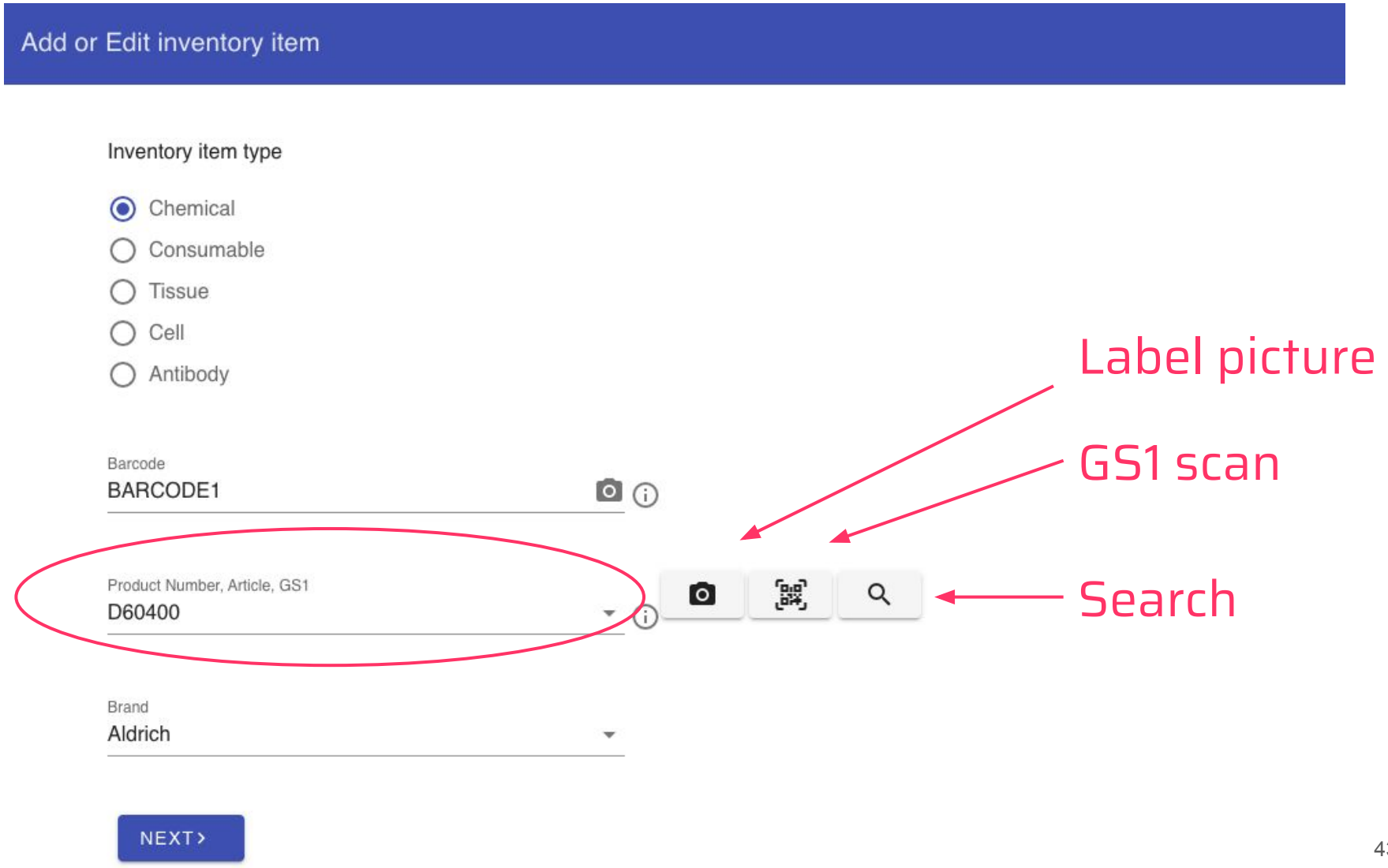
Not Sticking

Hard to find

Adding Chemicals - Add / Edit Chemicals



Adding Chemicals - Add / Edit Chemicals

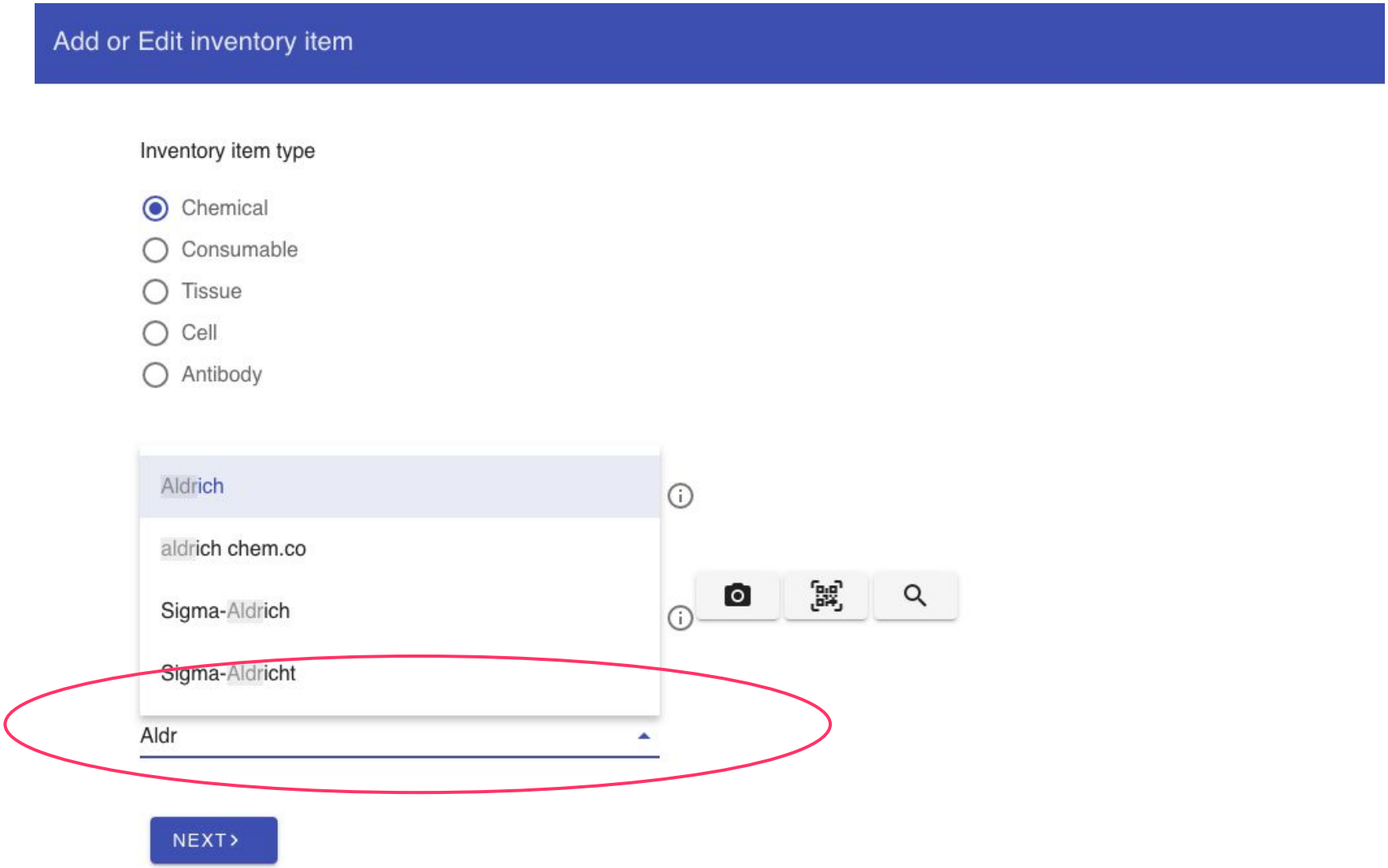


Adding Chemicals - Add / Edit Chemicals

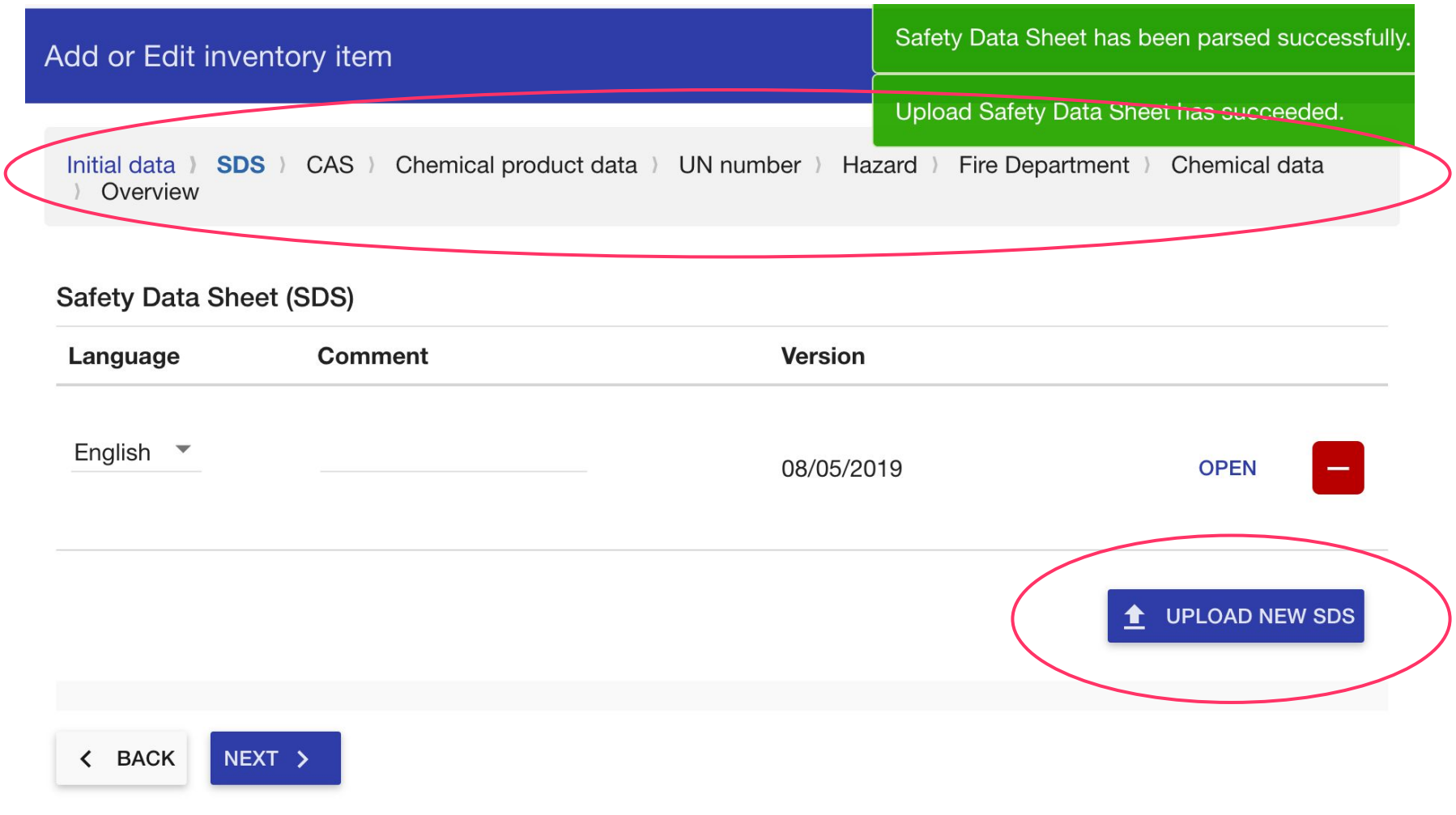
GS1 standard

- 2D data matrix on label (if available, eg. Merck)
- Could contain: Brand, Product number, LOT/Batch number, Manufacturing date, Expiry date etc. which is then automatically filled in
- https://www.gs1.org/

Adding Chemicals - Add / Edit Chemicals



Adding Chemicals - Add / Edit Chemicals



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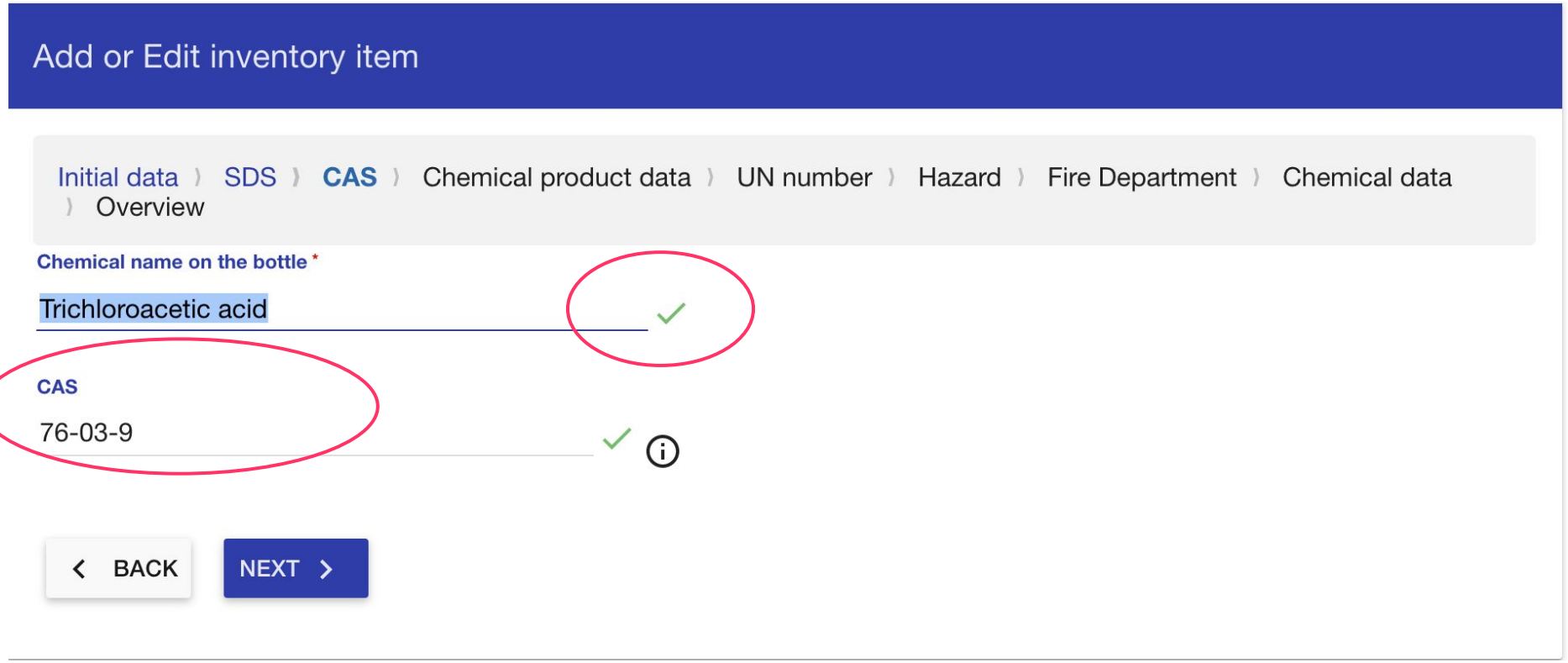

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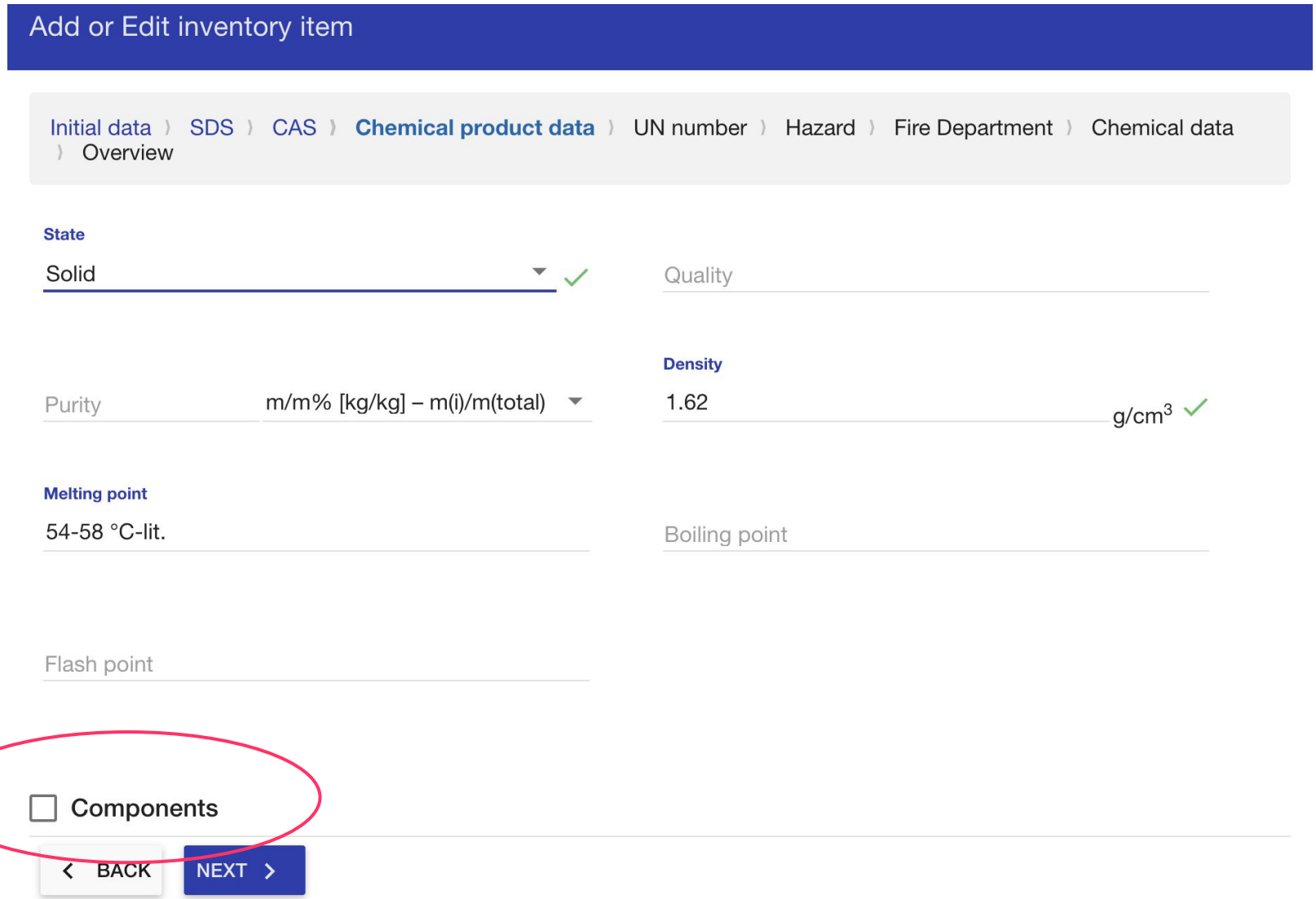

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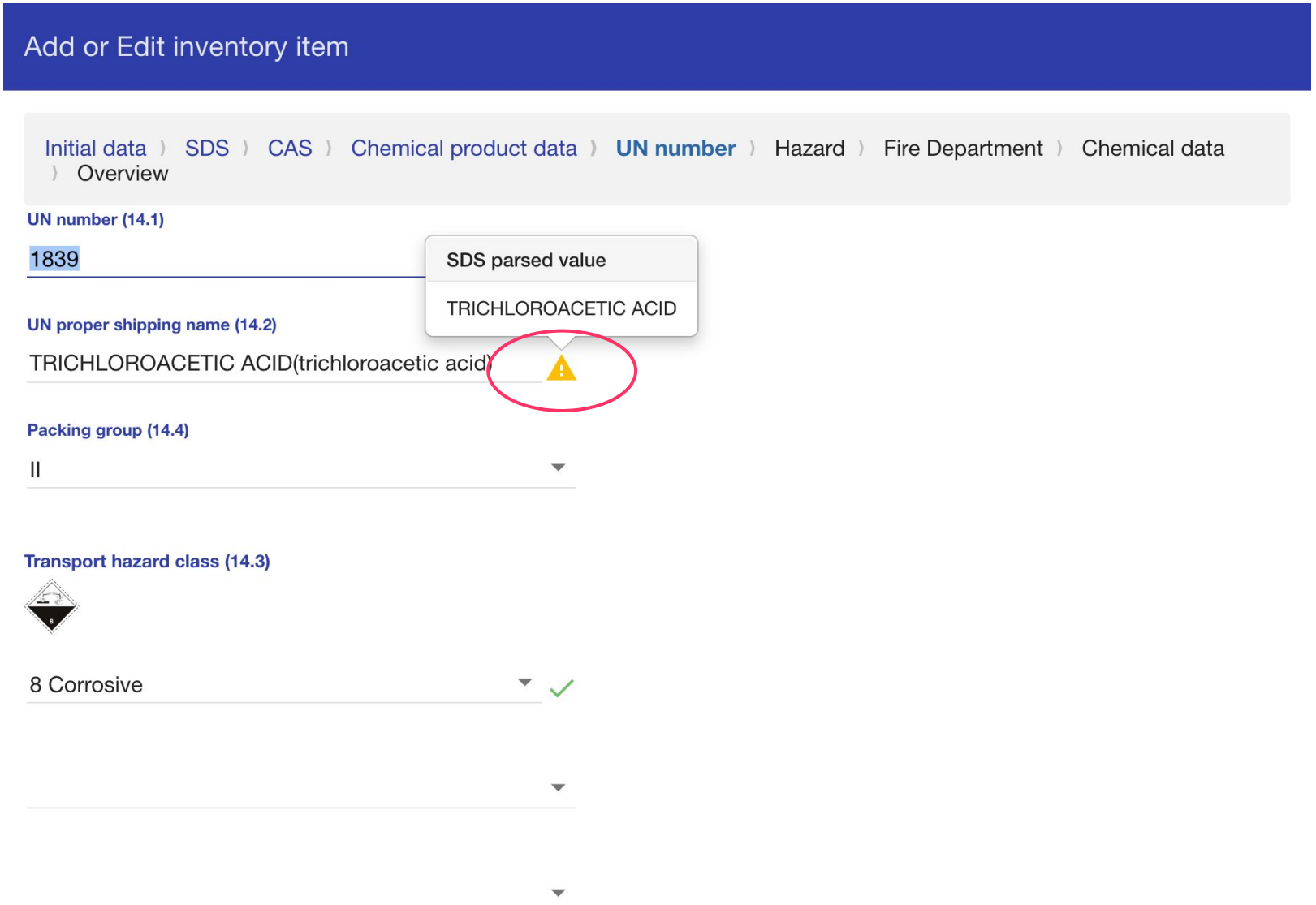

Adding Chemicals - Add / Edit Chemicals

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Add or Edit inventory item

Initial data › SDS › CAS › Chemical product data › UN number › **Hazard** › Fire Department › Chemical data › Overview

Hazard classification (2.1) ✓

- Skin corrosion (Category 1A, H314) —
- Specific target organ toxicity - single exposure (Category 3, H335) —
- Acute aquatic toxicity (Category 1) —
- Chronic aquatic toxicity (Category 1) —

Hazard class

+ ADD

Country specific hazard

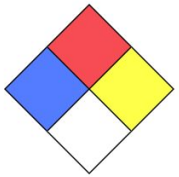
Pictogram (2.2)

Signal word (2.2)

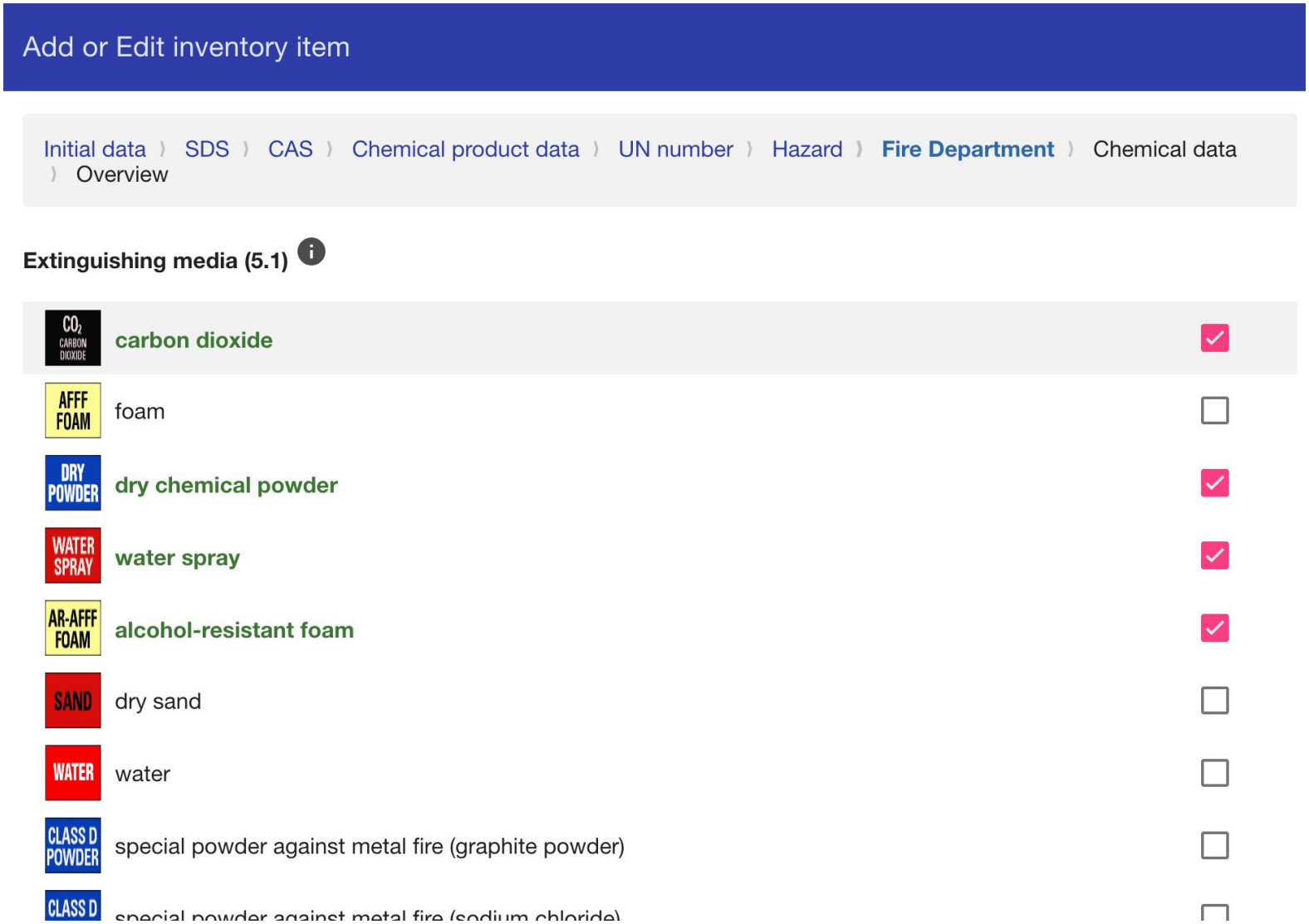
Danger

Hazard code(s) and hazard statement(s) (2.2)

H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation
H410	Very toxic to aquatic life with long lasting effects



Adding Chemicals - Add / Edit Chemicals



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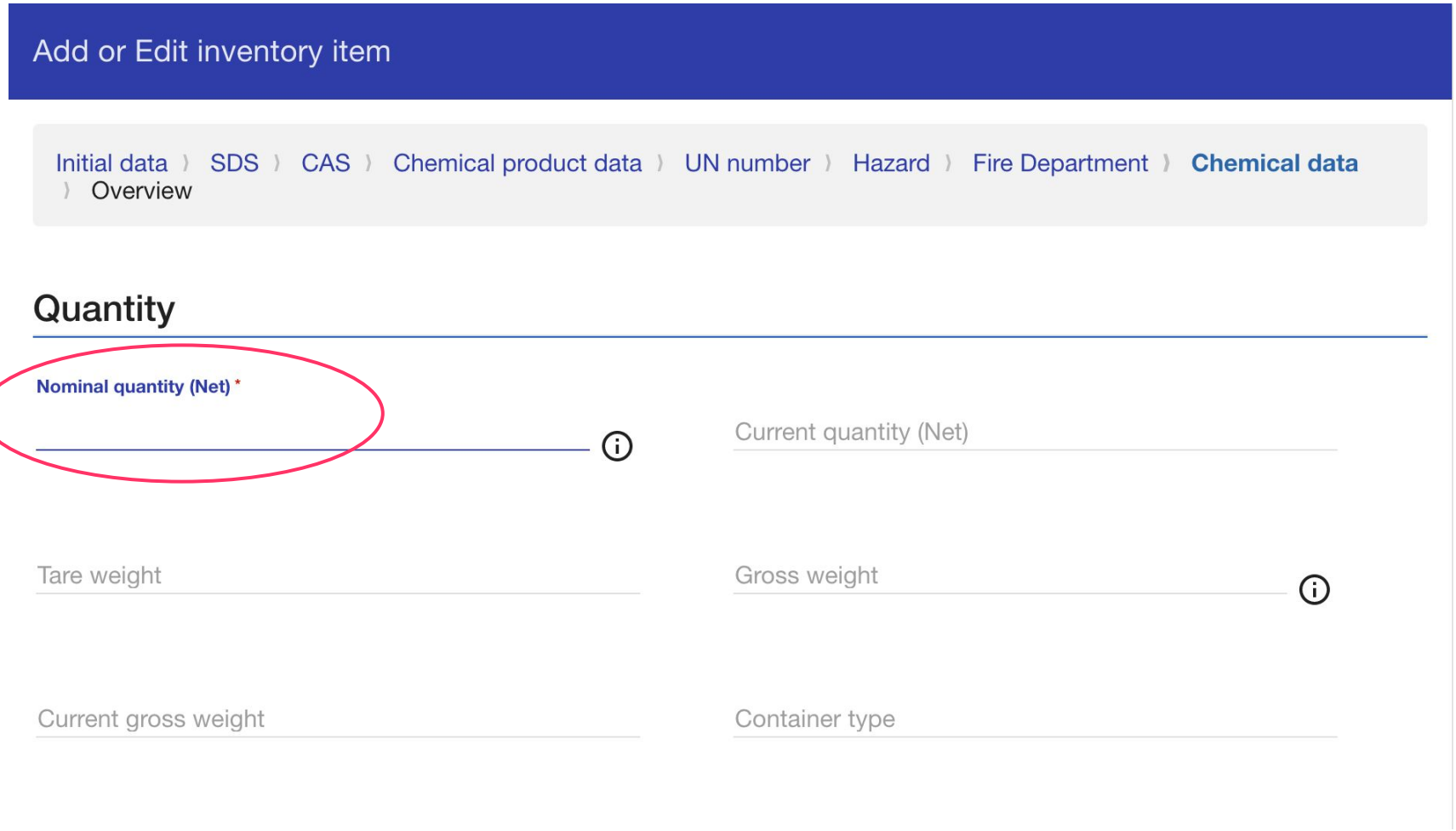

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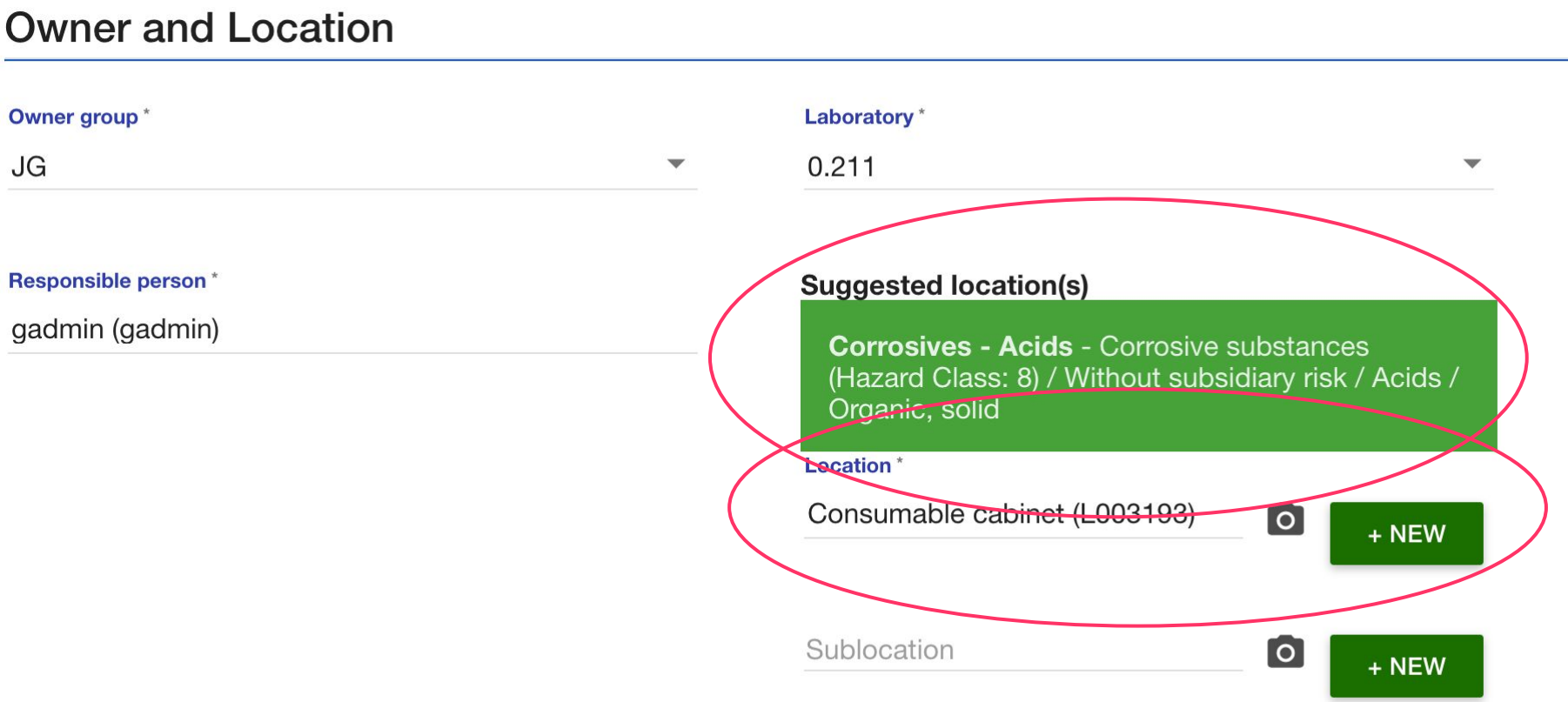

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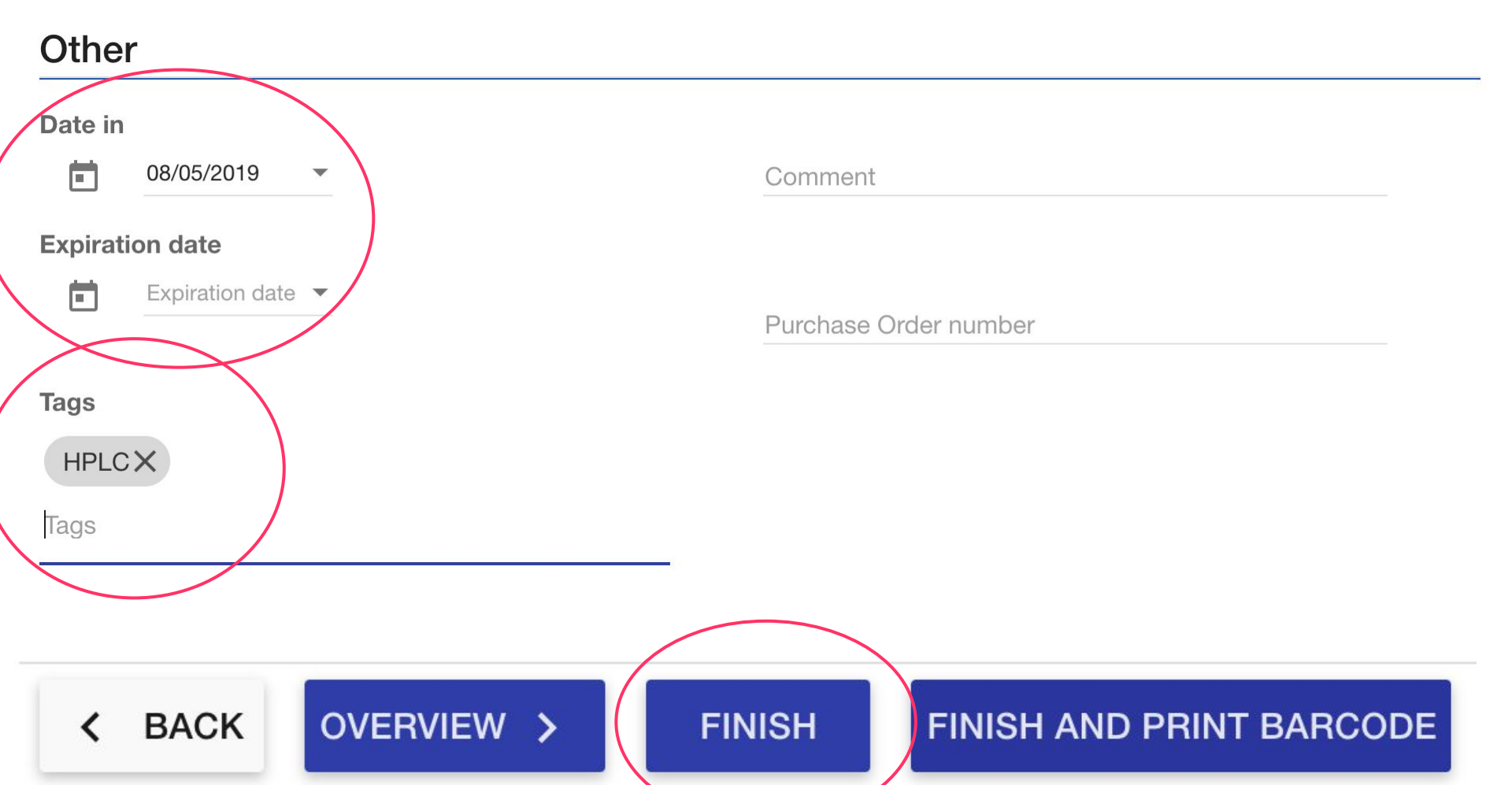


Adding Chemicals - Add / Edit Chemicals

- Automatic data enrichment

Synonyms

TCA

TRICHLOROACETIC ACID

Trichloroethanoic acid

Aceto-caustin

Trichloracetic acid

Acetic acid, trichloro-

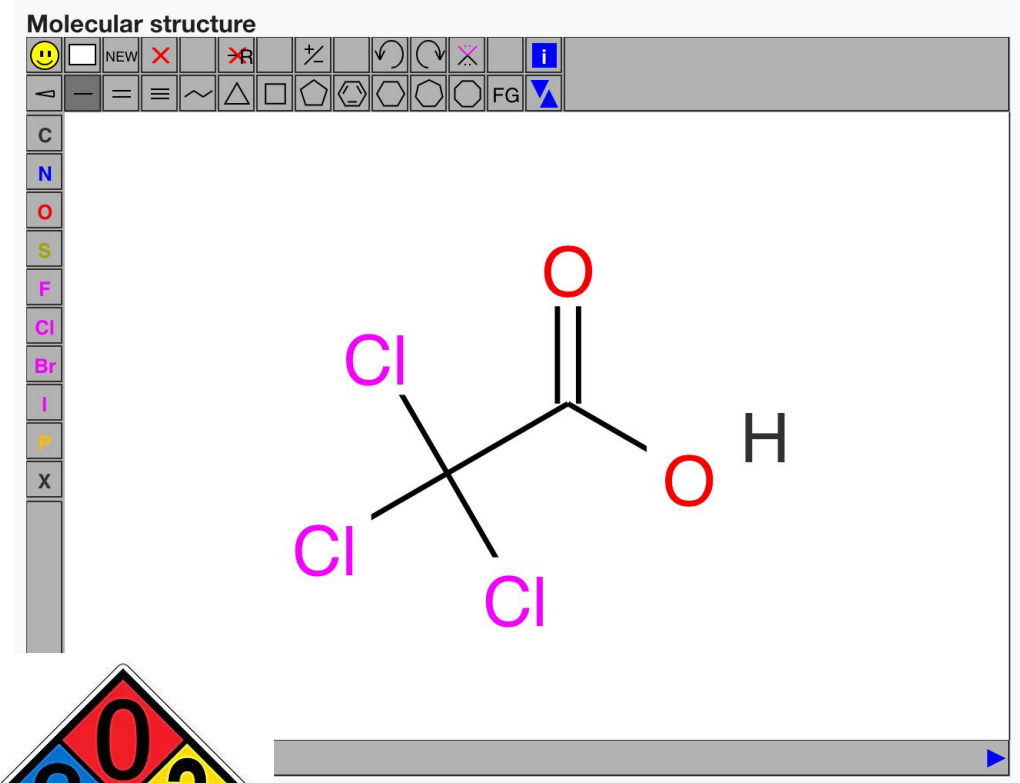
Trichloressigsaeure

Konesta

Acide trichloracetique

Acido tricloroacetico

Amchem grass killer



Adding Chemicals - Add / Edit Chemicals

Label printing

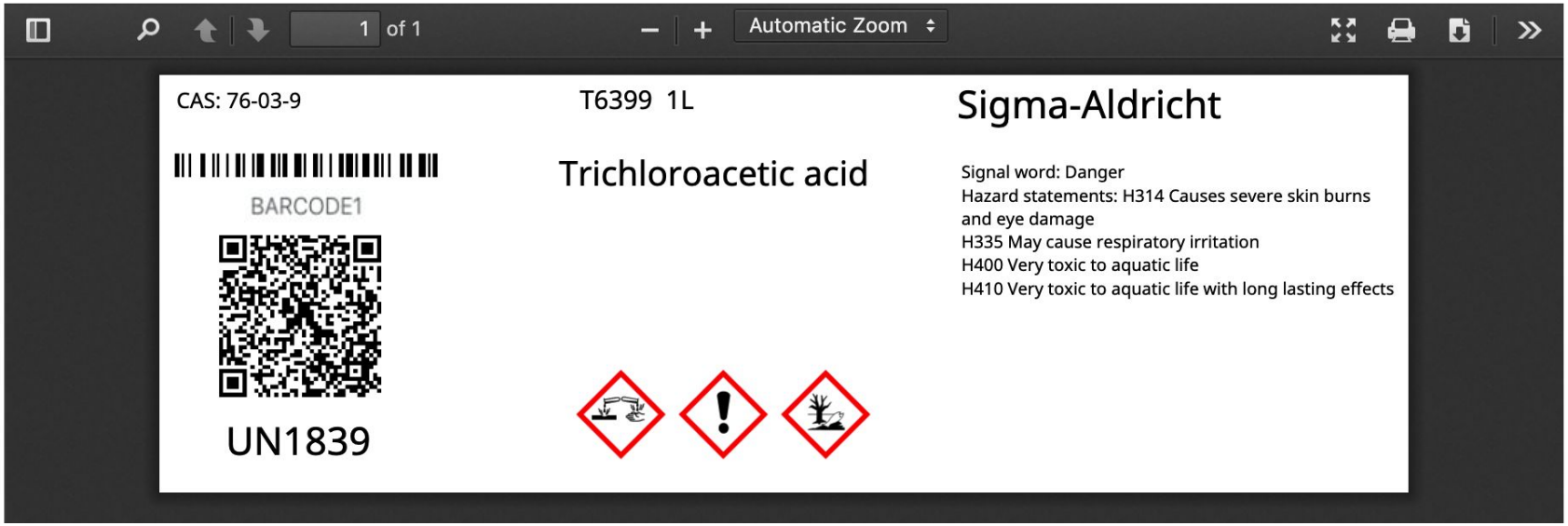
Barcode

BARCODE1

DATA SHEET

Template

Copy of GHS Label L (155 x 52 mm)



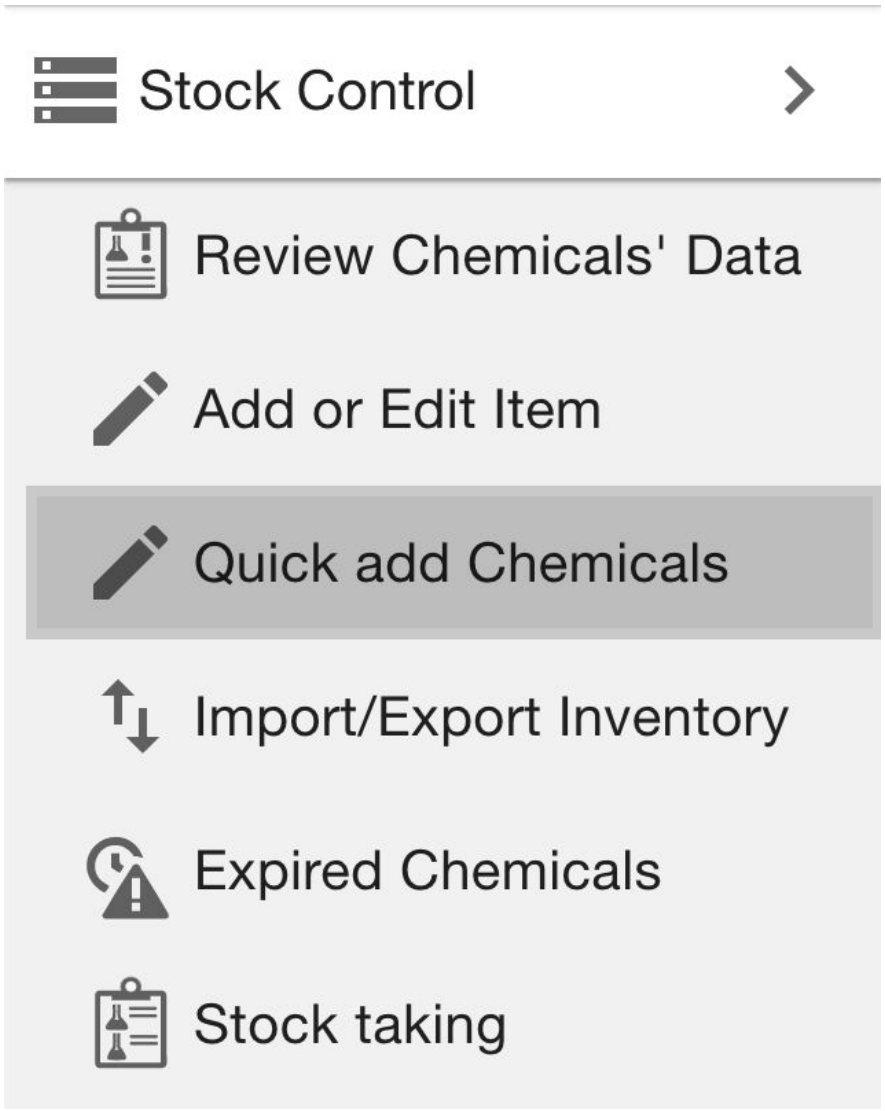
Adding Chemicals - Add / Edit Chemicals

- Unique Barcode is required
- Brand + Product Number uniquely identifies a product
- Saved in CWU's Private Product Database and will be re-used
- Only two pages for the second time
  - **Barcode & What**
  - **How much & Where you put it**

Adding Chemicals

- Import from MS Excel / csv
- Add / Edit Chemicals (Primarily desktop)
- Quick add (Primarily mobile phone)
- API

Adding Chemicals - Quick add



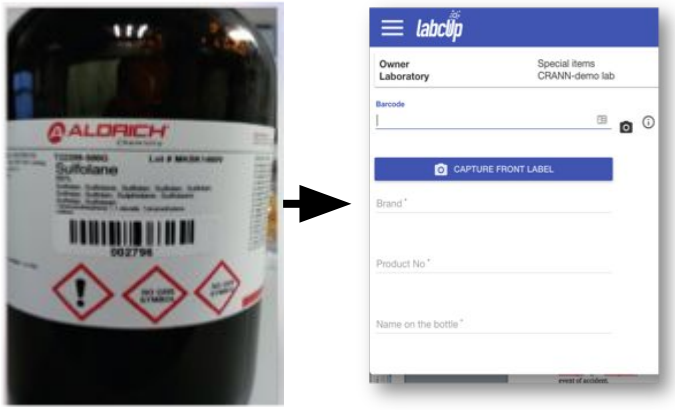
- Add many chemicals at once in one locations
- Minimum information in the lab from the label
- Data check & approval in the office

Adding Chemicals - Quick add

- Chemical input by picture
- Obtain as much data as possible automatically

Adding Chemicals - Quick add

- Chemical input by picture
- Obtain as much data as possible automatically



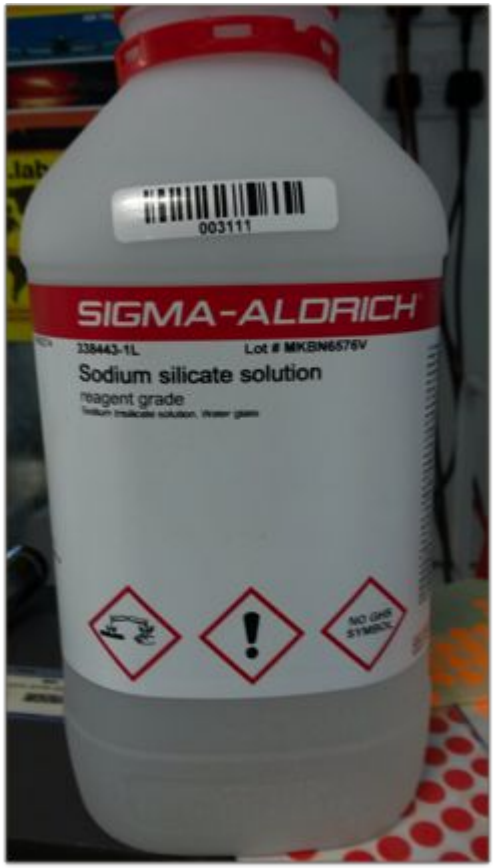
Adding Chemicals - Picture Taking

Out of Focus

Multiple Bottles

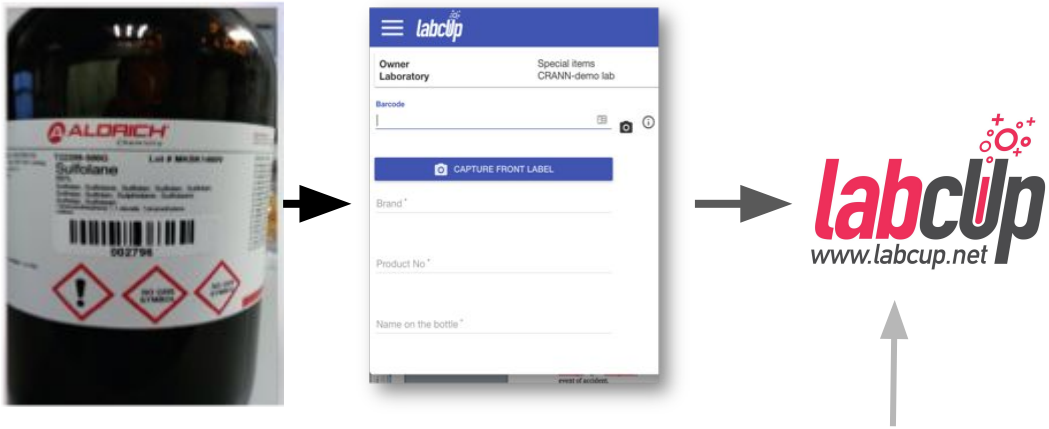
Tilted

Perfect



Adding Chemicals - Quick add

- Chemical input by picture
- Obtain as much data as possible automatically

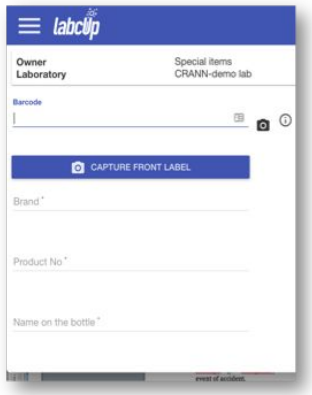


Own & Online databases
- Chemical structure
- Synonyms etc

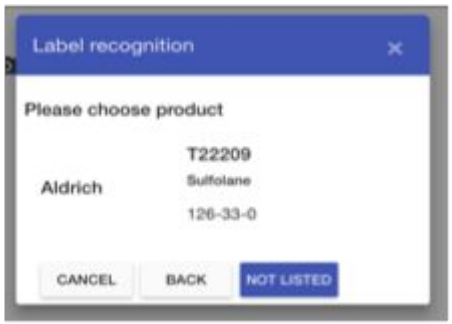
Brand/Supplier
- SDS etc

Adding Chemicals - Quick add

- Chemical input by picture
- Obtain as much data as possible automatically



labcup
www.labcup.net



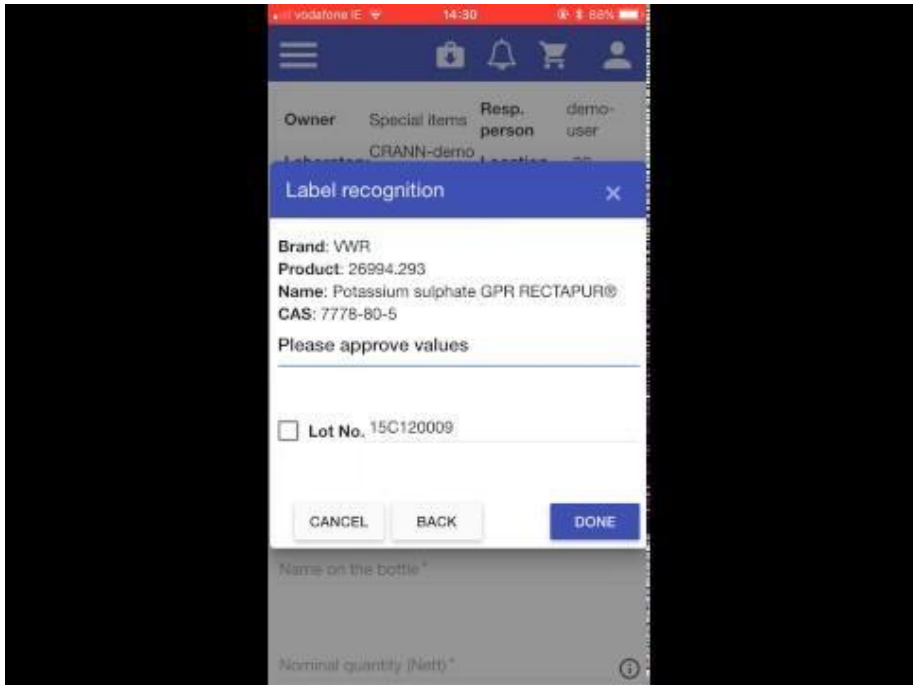
Own & Online databases
- Chemical structure
- Synonyms etc

Brand/Supplier
- SDS etc

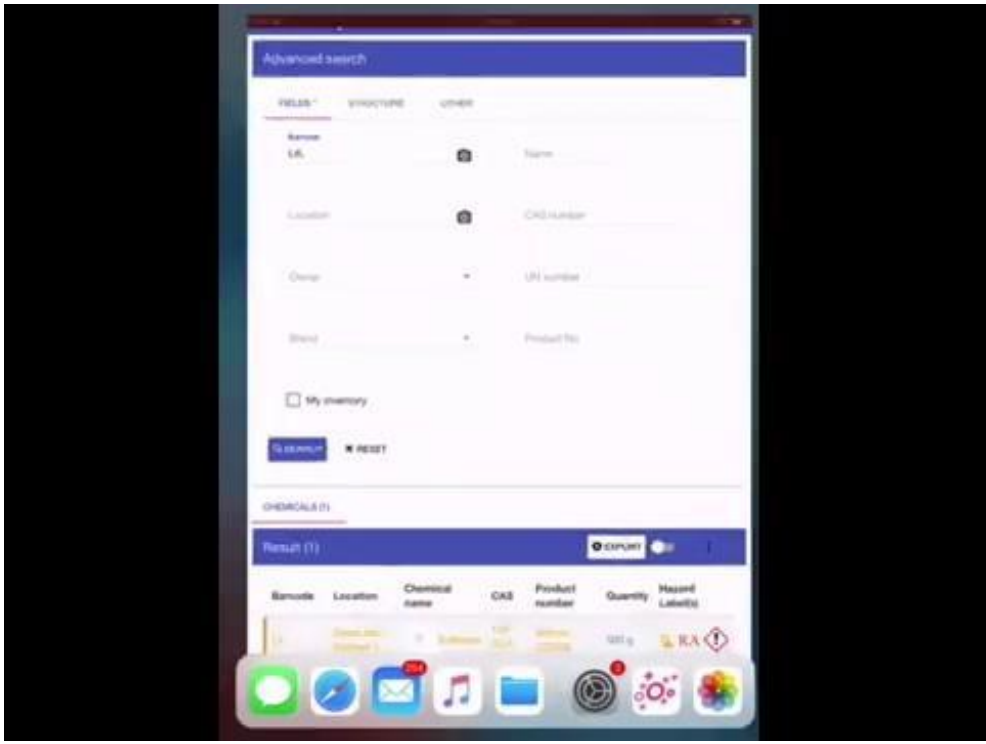
Inventory + CWU's product database

Adding Chemicals - Quick add

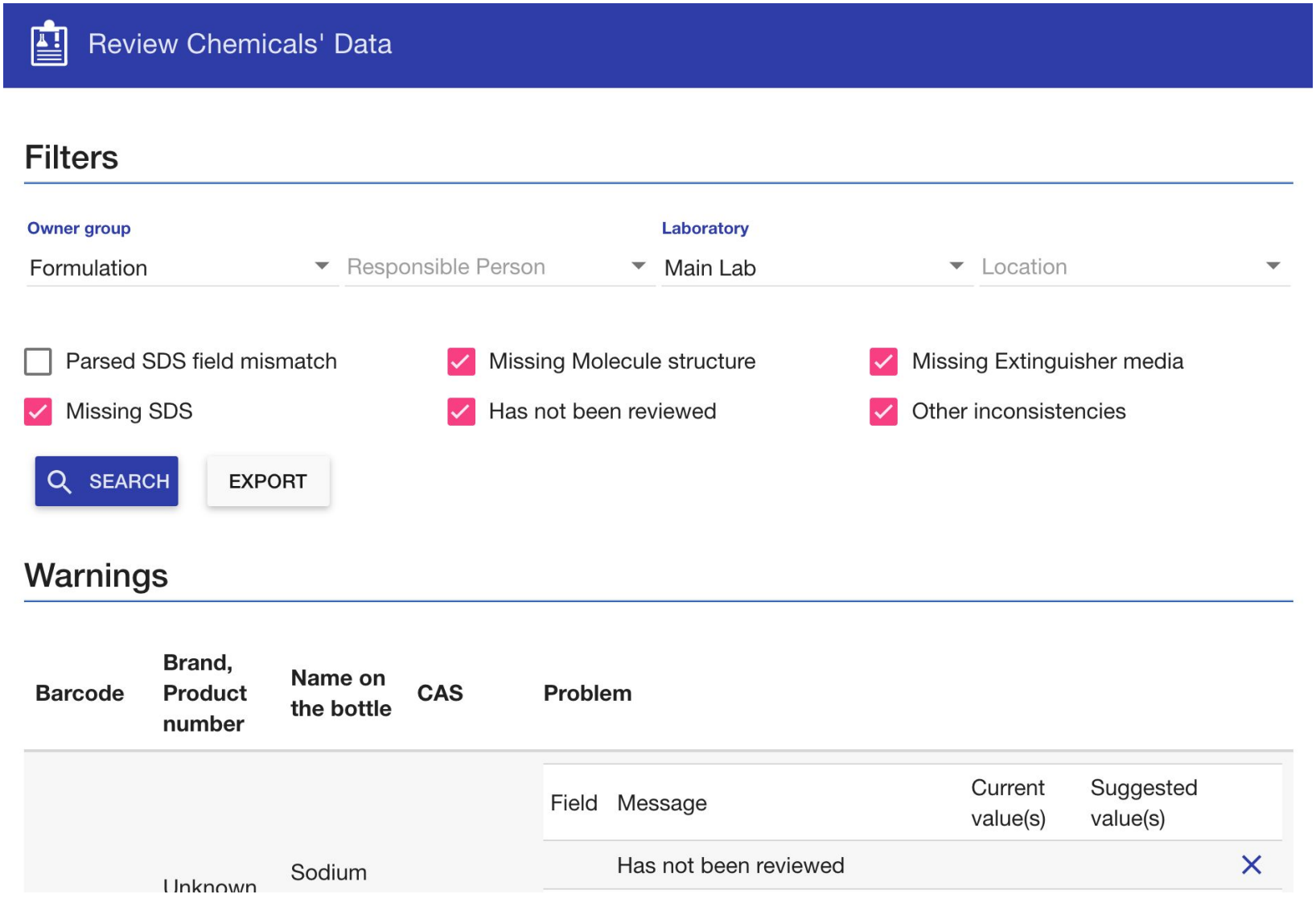
On smartphone



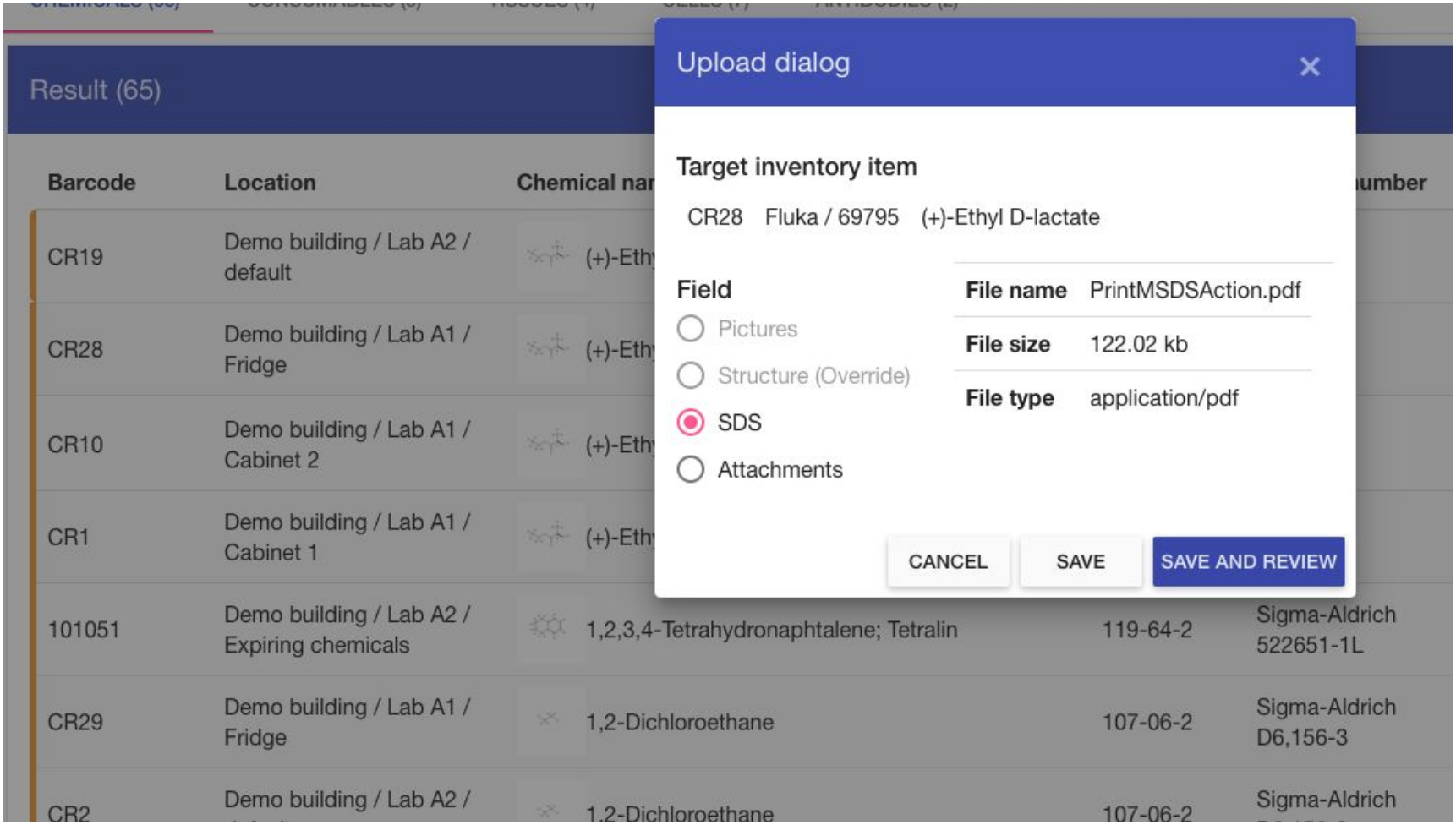
On tablet



Adding Chemicals - Checking Data



Adding Chemicals - Drag&Drop Data



Overview

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Read

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- **Finding Chemicals**

Write

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- **Storage**

Group Administrator

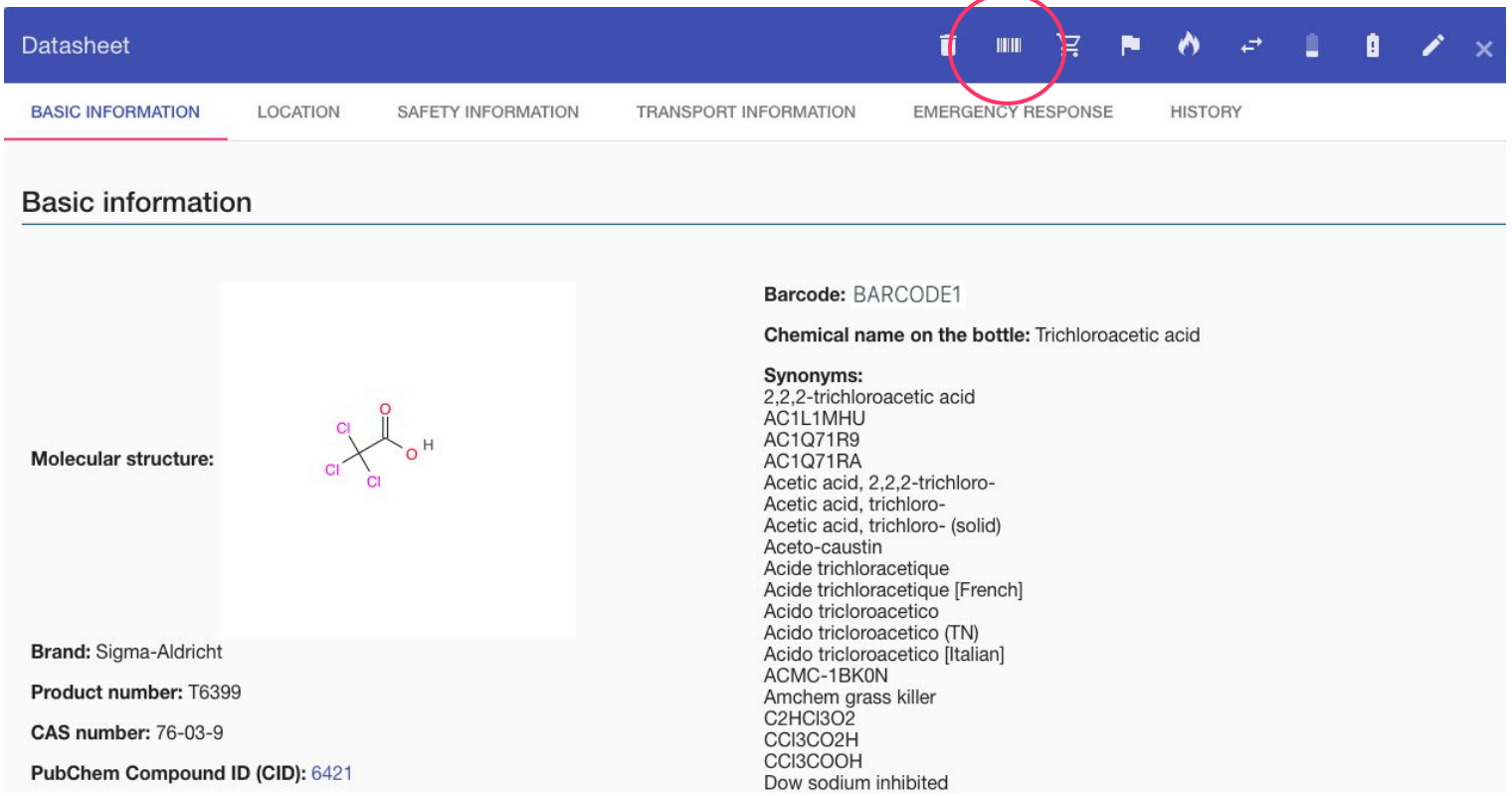
- **Group User Management**
- **Emergency Page**

Label Printing

- From search results
- From chemical datasheet

Label Printing

- From search results
- From chemical datasheet



Label Printing

Label printing

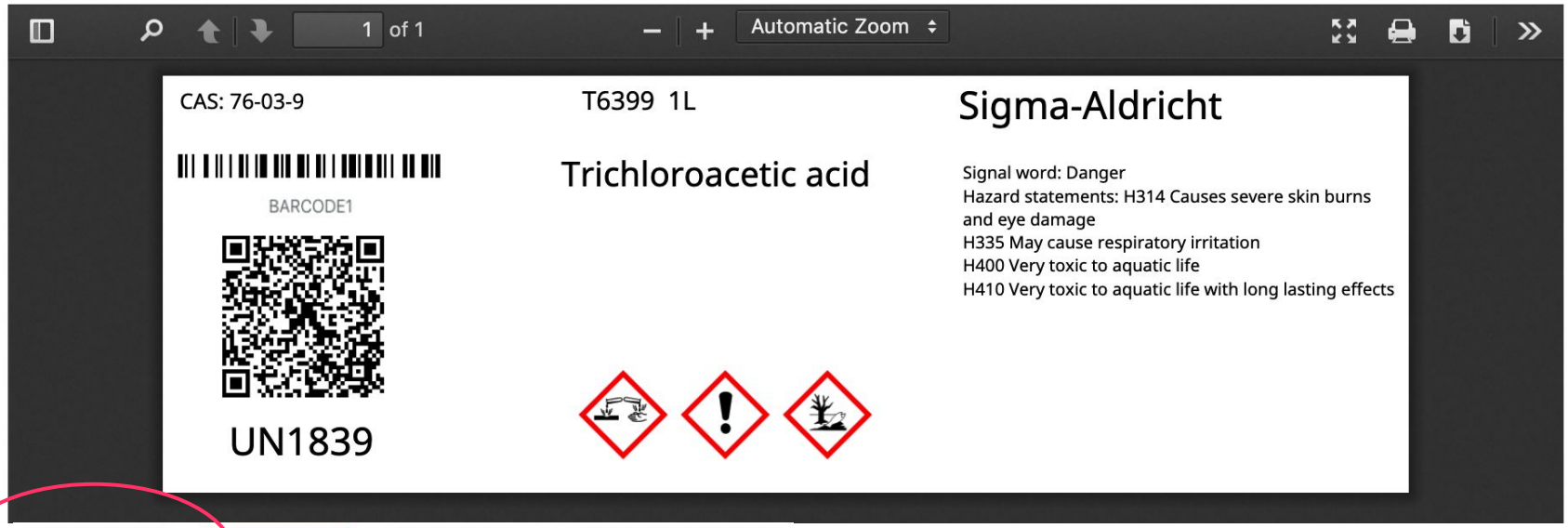
Barcode

BARCODE1

DATA SHEET

Template

Copy of GHS Label L (155 x 52 mm)



EDIT PREVIEW PRINT DOWNLOAD

Label Printing

Edit template

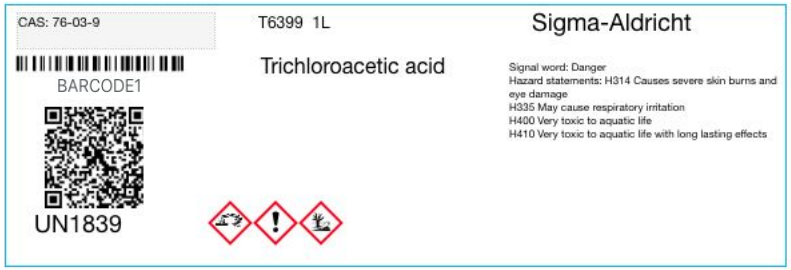
Built-in templates or templates created by other users cannot be edited. Please duplicate first, afterwards it can be freely edited, renamed and deleted.

Template name

GHS Label L (155 x 52 mm)

Label

Width	Height	Unit	Zoom (%)
155	52	mm	100



- [ ] Debug PDF (if the image does not match with the generated pdf)
- [ ] Share globally
- [ ] Share with my groups

DUPLICATE TEMPLATE

Field

CAS number

- [x] Visible
- [ ] Cut long text

You can move and resize the element on the left side. The below is for precise alignment

Position (px)

X	Y	Width	Height
8	5	149	28

Text template

CAS: {{cas}}

Text align	Font size	
Left	10	Font color

Border

- [ ] Top
- [ ] Bottom
- [ ] Left
- [ ] Right

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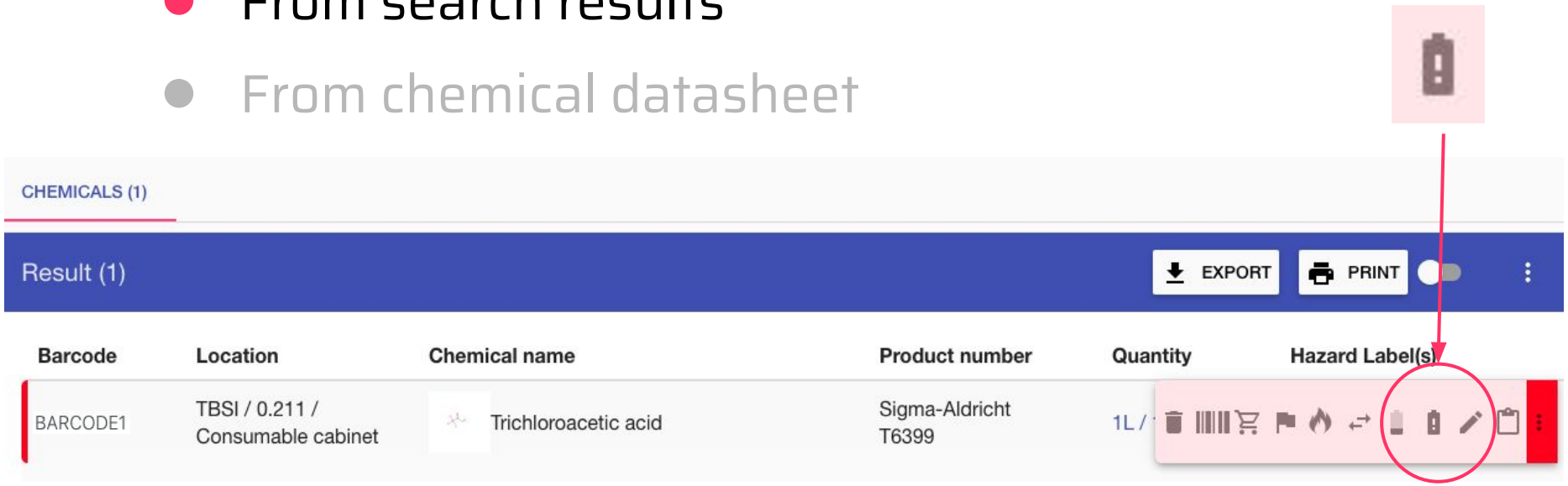
Re-order Threshold

- From search results
- From chemical datasheet



Re-order Threshold

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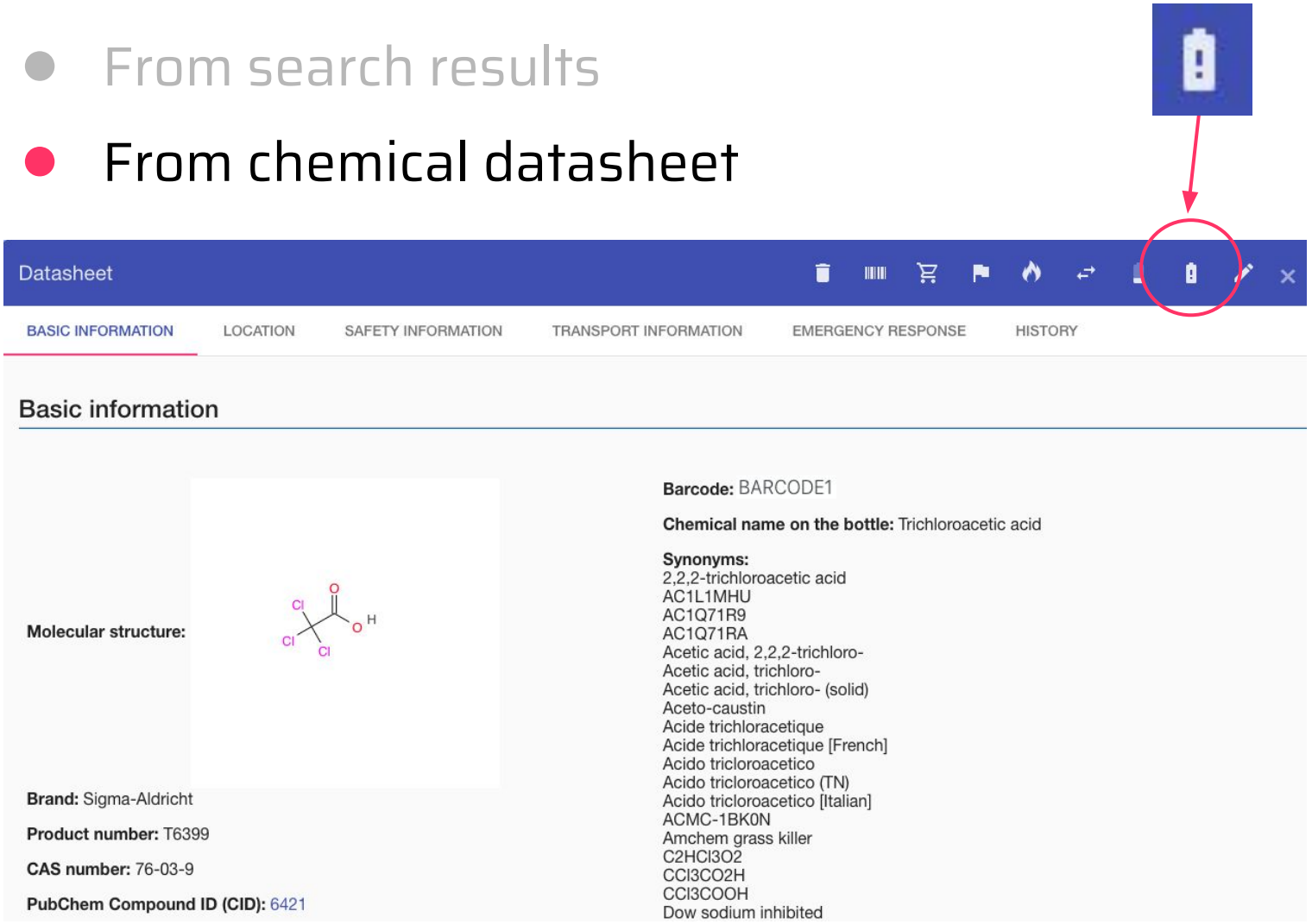
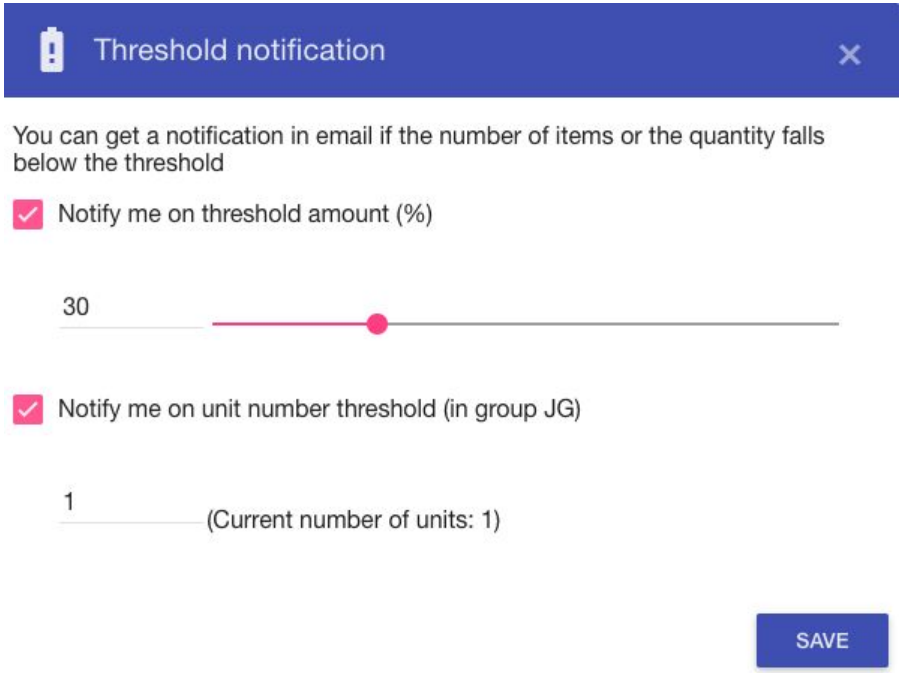


Re-order Threshold



- Quantity in the container and/or number of container
- Responsible person gets an email

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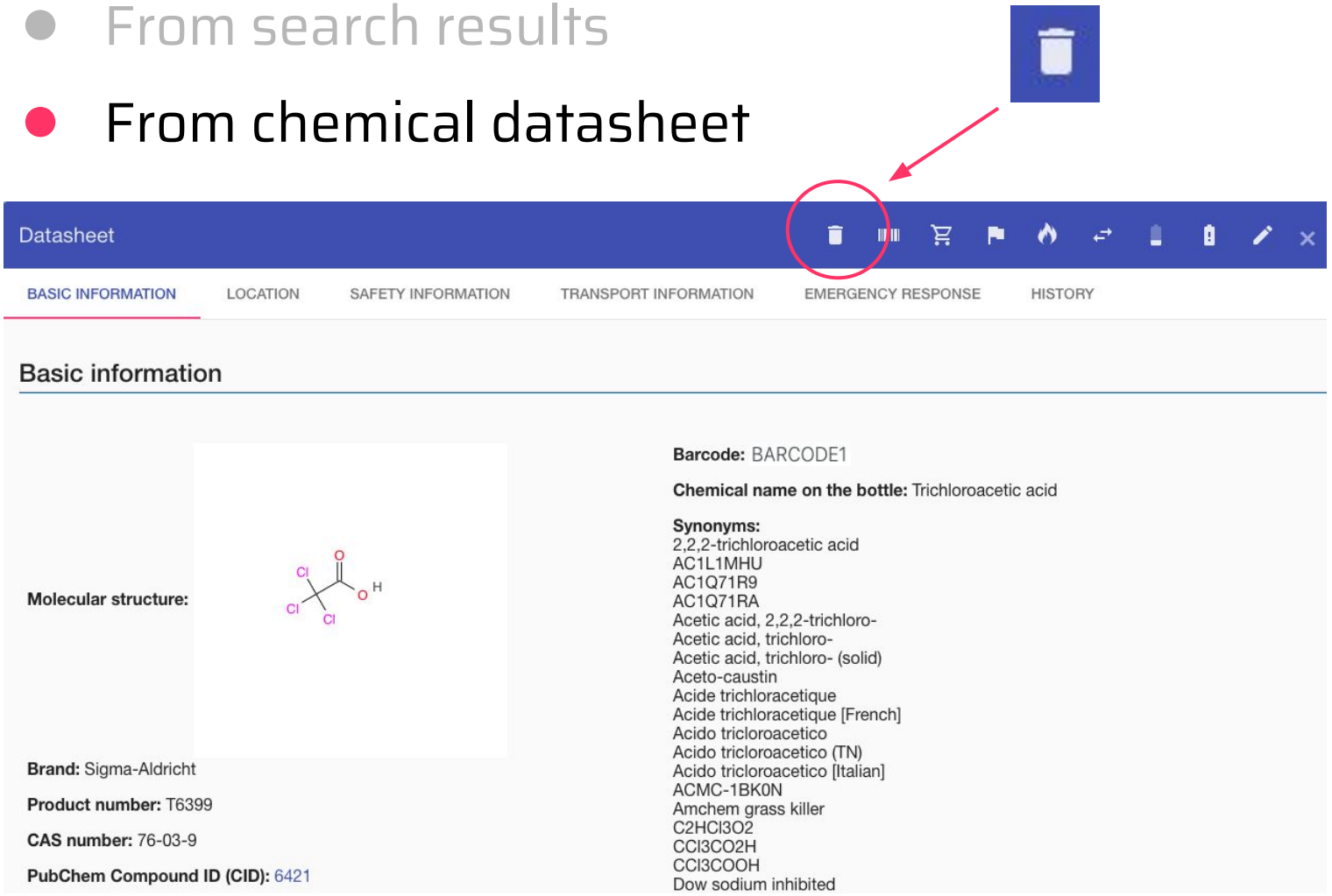
Removing Chemicals

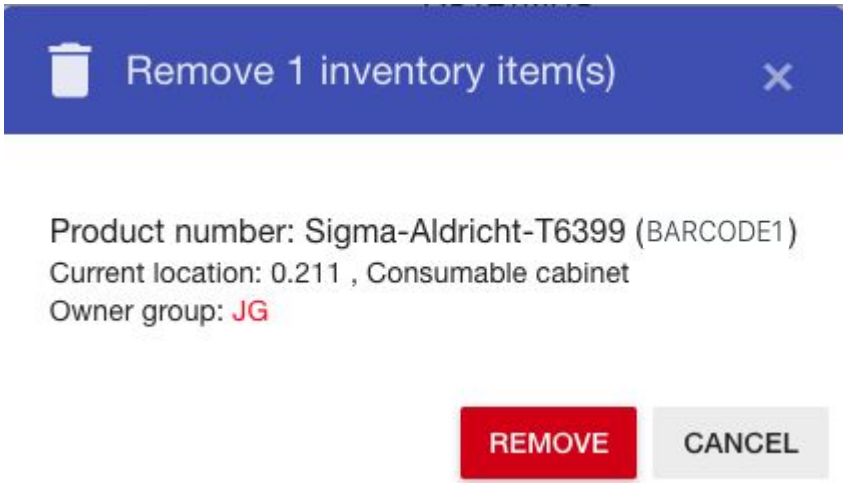
- From search results
- From chemical datasheet

Removing Chemicals

- From search results
- From chemical datasheet

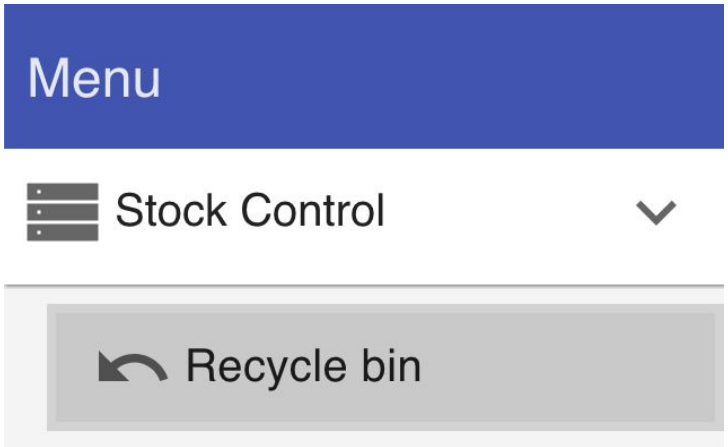


Removing Chemicals



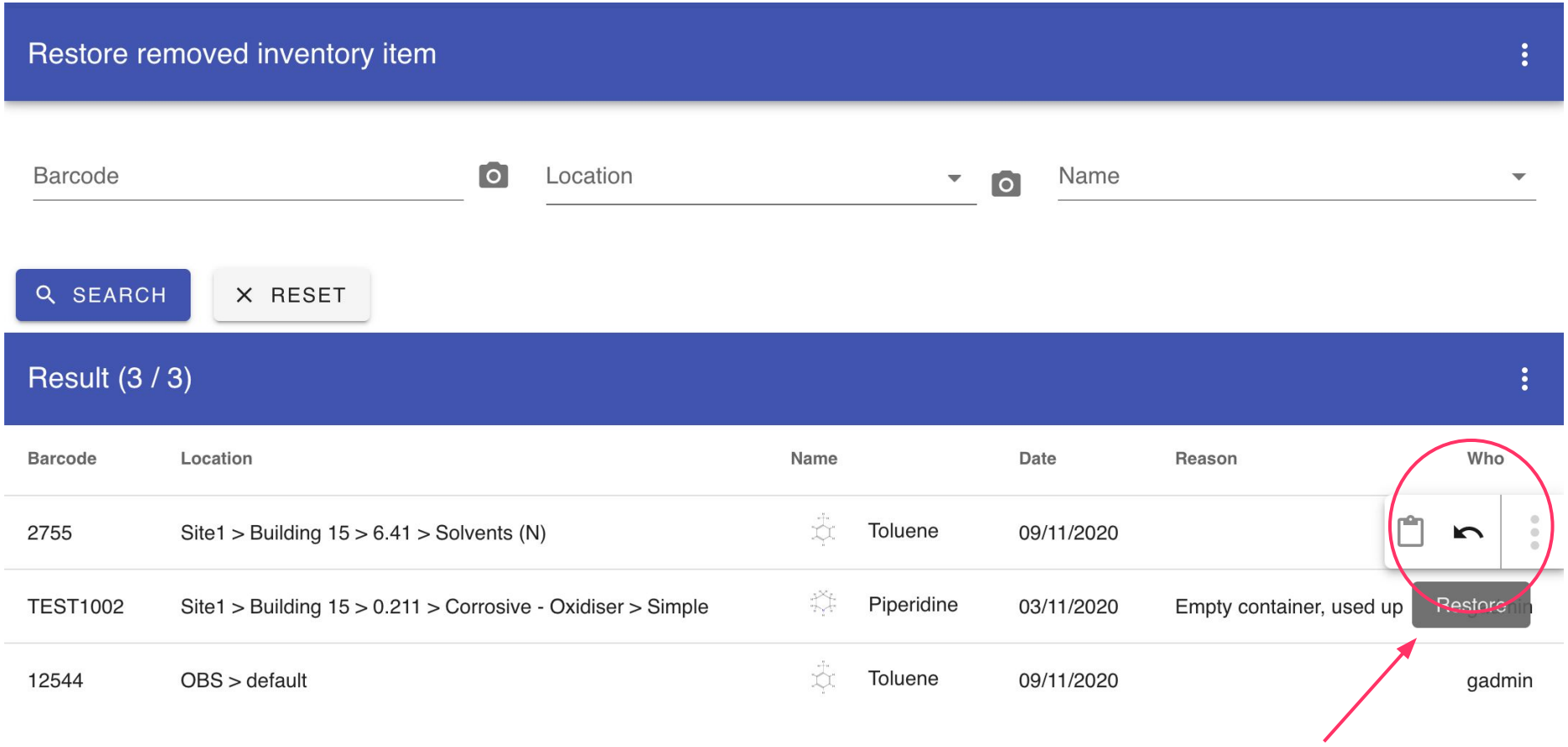
- Removes it from the **live inventory list (soft delete only)**, and
- the product data **stays in the product database**
- **Stays in the logs** for compliance reports for 5 years
- Safety officer can create waste report

‘Recycle bin’



- **Recover accidently deleted chemicals**
- Recover **up-to 30 days**
- Through the **Stock taking**, you can recover chemicals **up-to 365 days**
- For chemicals over 365 days, contact LabCup officially

‘Recycle bin’


Restore removed inventory item
Barcode
Location
Name
SEARCH
RESET
Result (3 / 3)
Barcode
Location
Name
Date
Reason
Who
2755
Site1 > Building 15 > 6.41 > Solvents (N)
Toluene
09/11/2020
TEST1002
Site1 > Building 15 > 0.211 > Corrosive - Oxidiser > Simple
Piperidine
03/11/2020
Empty container, used up
12544
OBS > default
Toluene
09/11/2020
gadmin

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Moving Chemicals - Within the Group

- From search results
- From chemical datasheet

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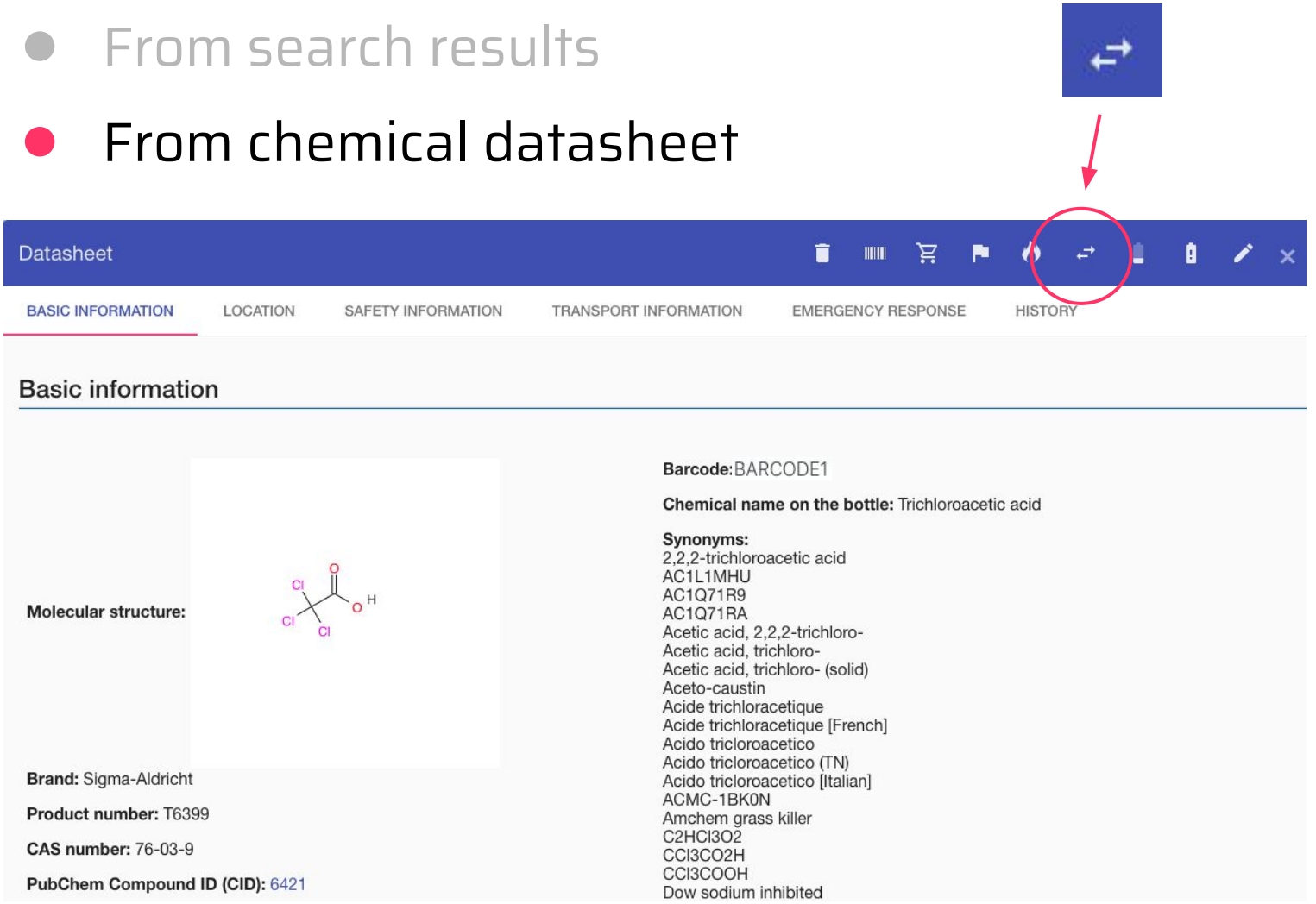
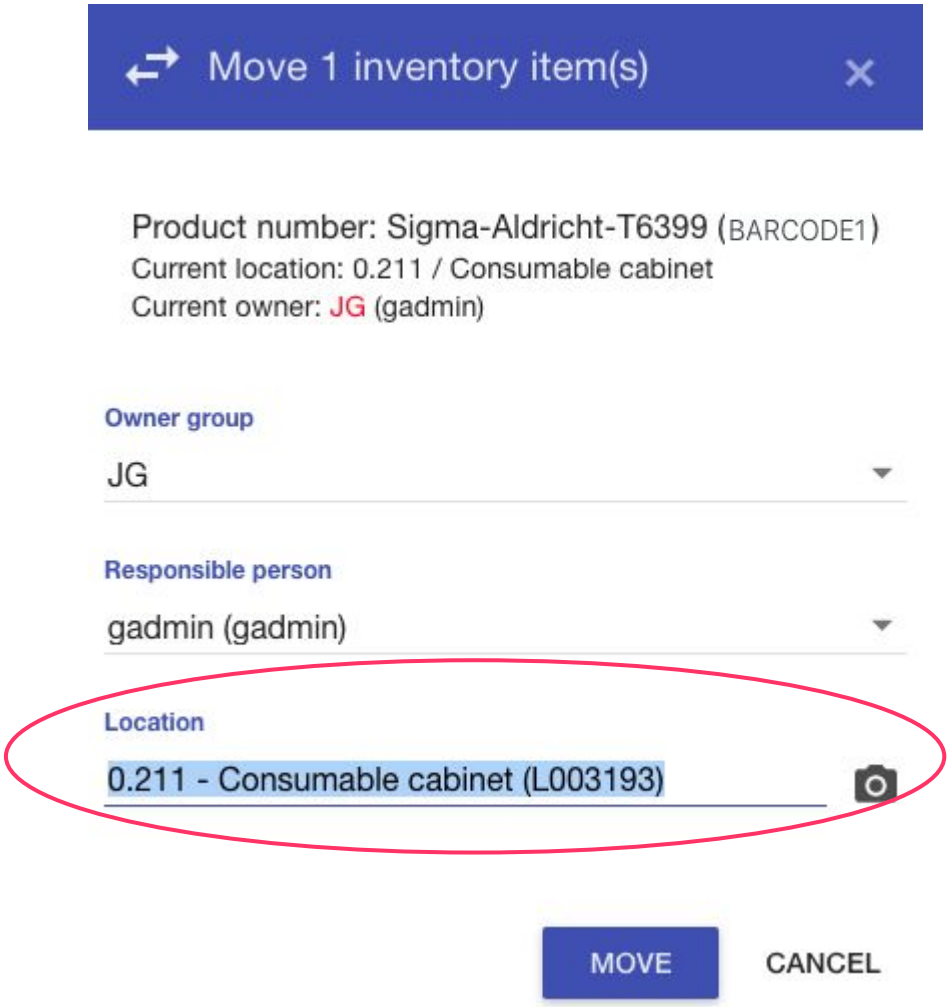
- From chemical datasheet



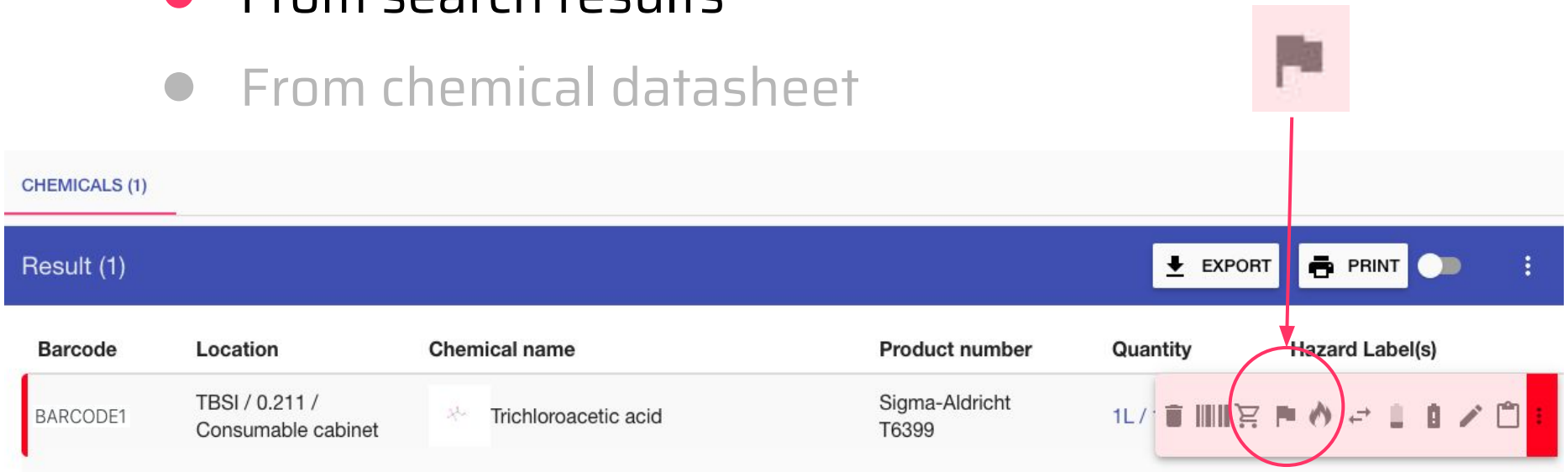
Moving Chemicals - Within the Group



- Move items to locations within your area
- Hand over responsibility within your group(s)

Moving Chemicals - To other Groups

- From search results
- From chemical datasheet



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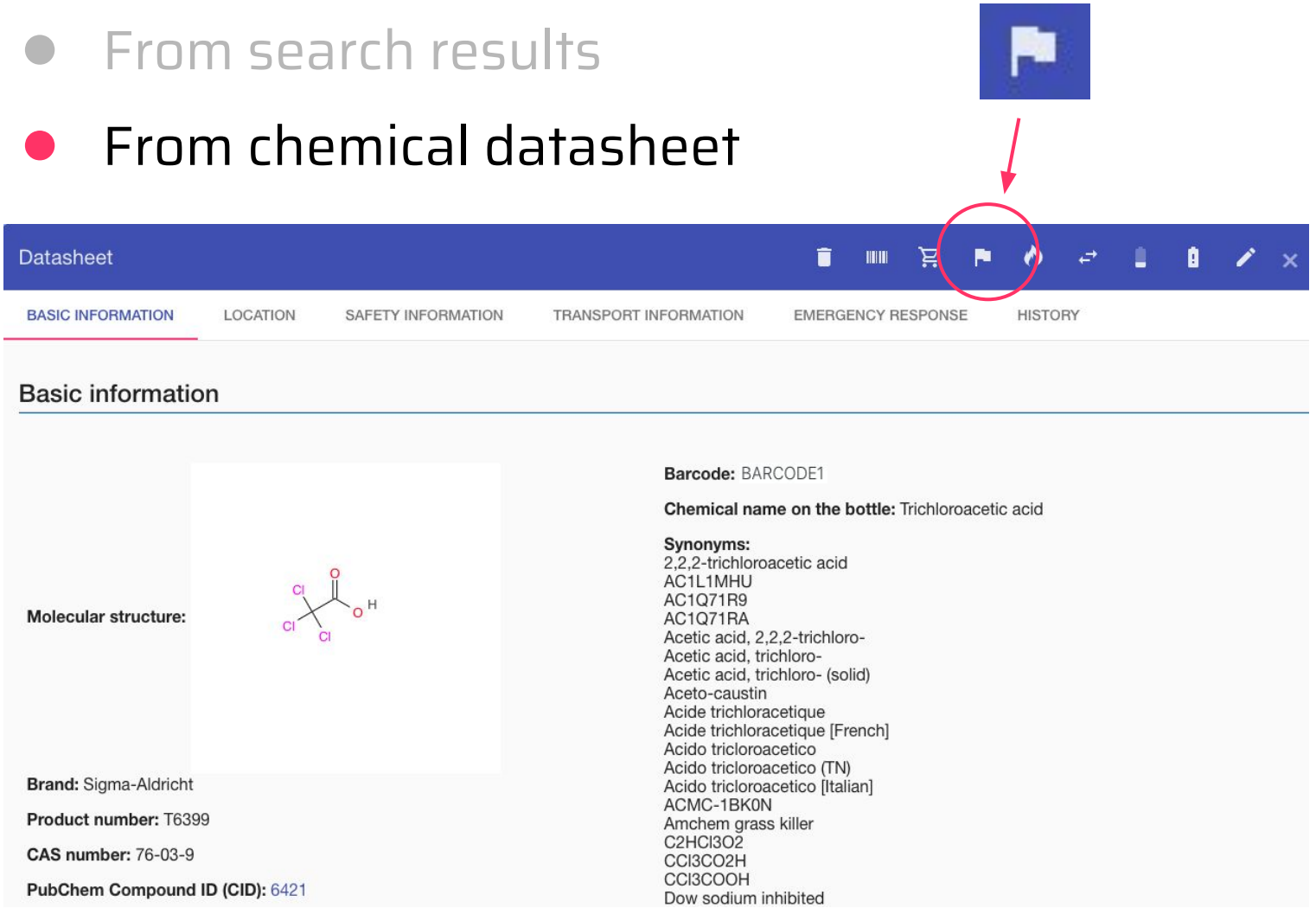
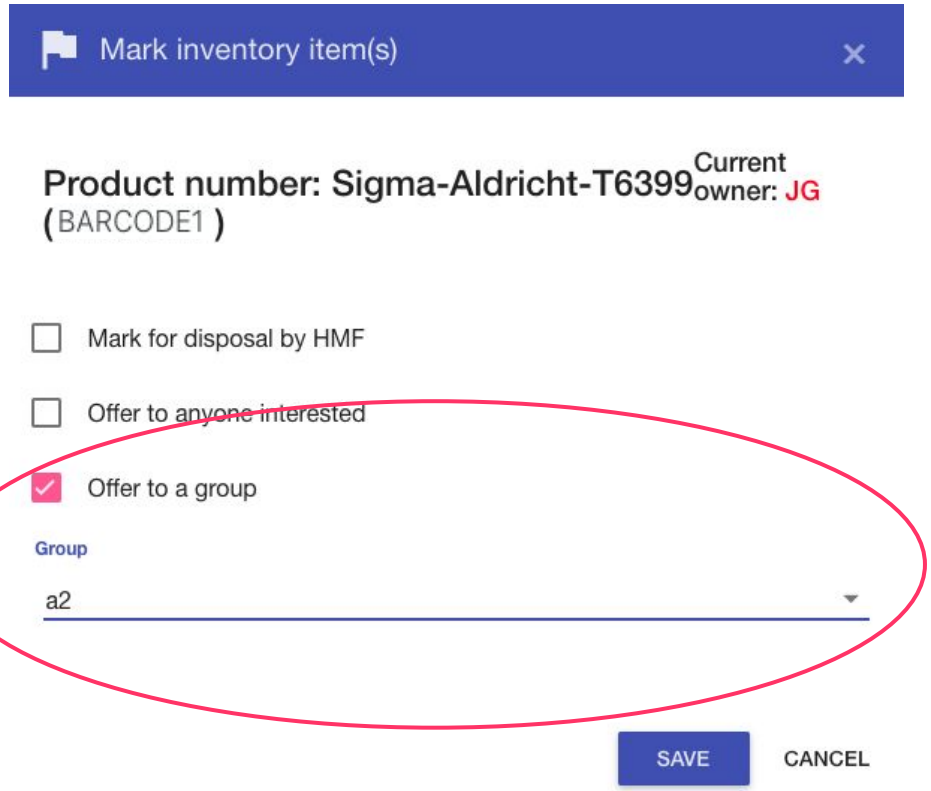
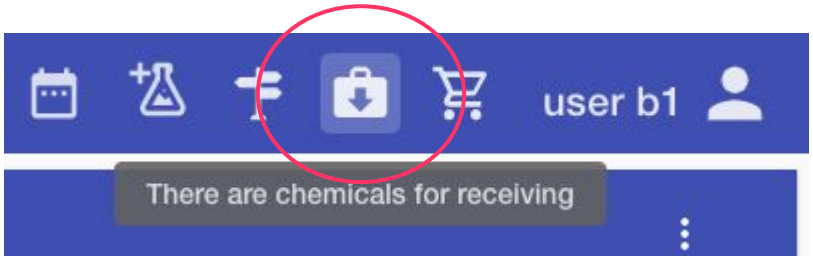


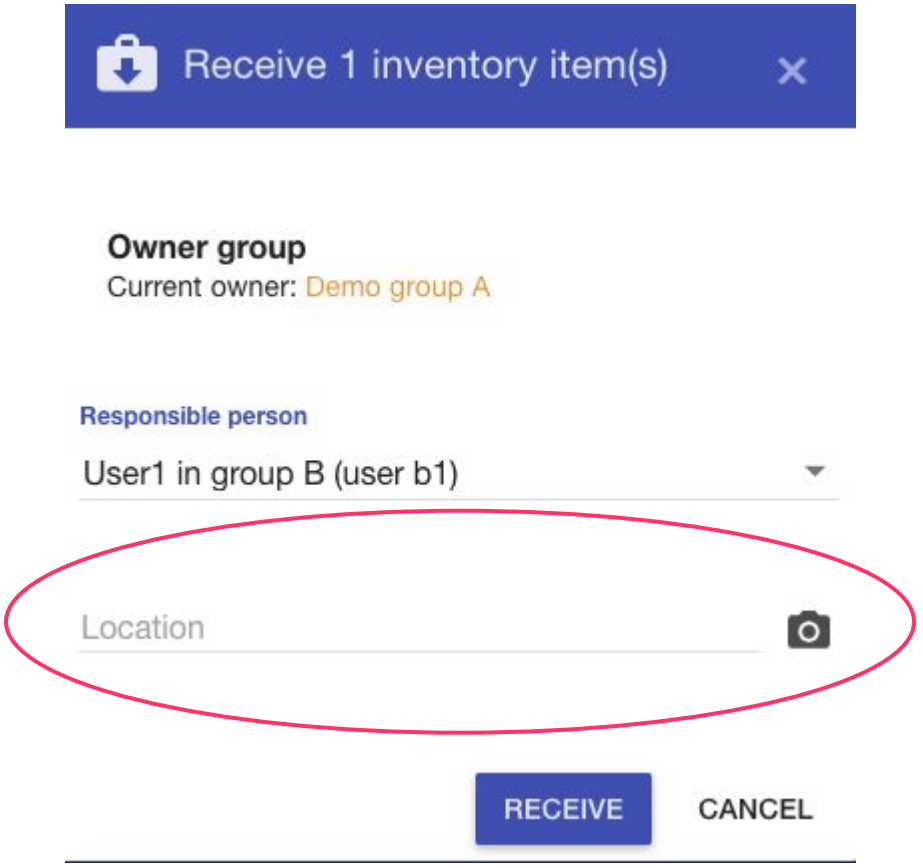
Moving Chemicals - To other Groups



- Offer items to other groups
- Ownership, responsible will change
- The other group has to accept

Moving Chemicals - To other Groups





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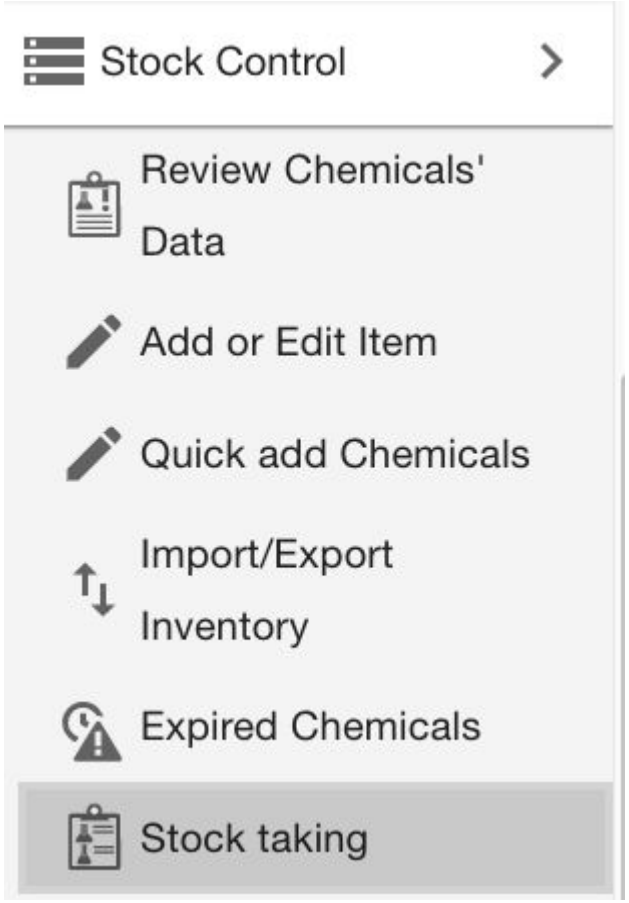
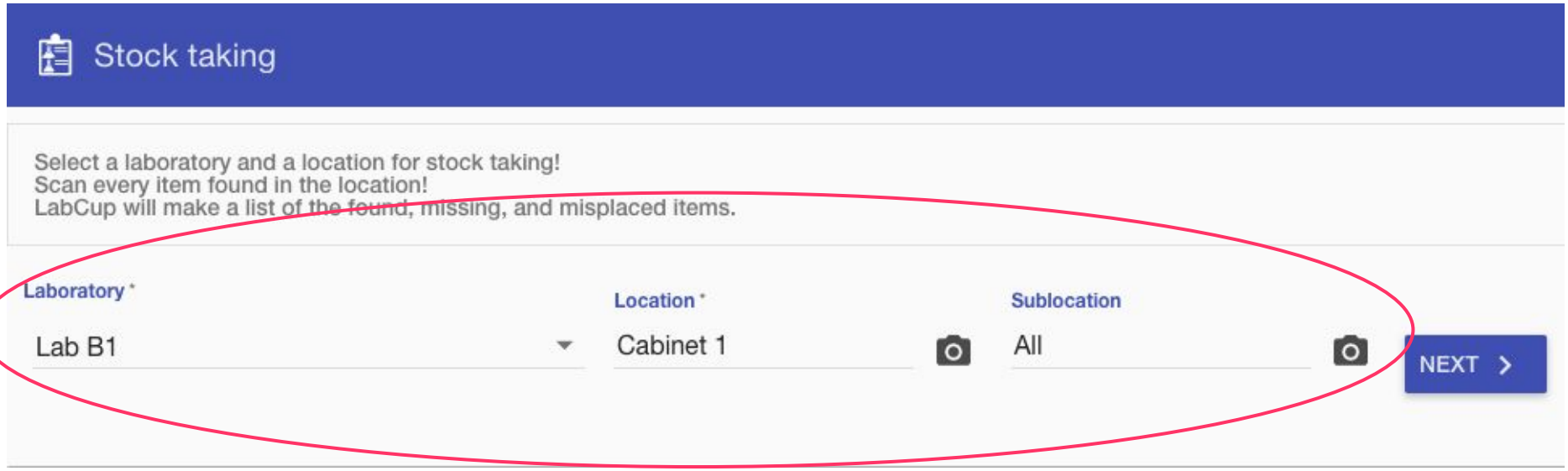
Stock Taking



Stock Taking



Stock Taking

Stock taking

Laboratory * Lab B1

Location * Cabinet 1

Sublocation All

CHANGE

Lab B1 / Cabinet 1 - All

GENERATE REPORT

Barcode 101031

FOUND

FOUND (0) MISSING (2) MISPLACED (0)

CHEMICALS (2)

Result (2)

Barcode	Location	Chemical name	CAS	Product number
101031	Lab B1 / Cabinet 1	Ethanol	64-17-5	Aldrich 443611-1L
101030	Lab B1 / Cabinet 1	Nitric acid	7697-37-2	Sigma-Aldrich 438073-100ML

Stock Taking

- If it is **Misplaced**: just take the item back to its right location
- If it is **not yours**: “Please take it back to…”
- If it has been **removed in the last 365 days**: you can restore it under the ‘Removed’ tab

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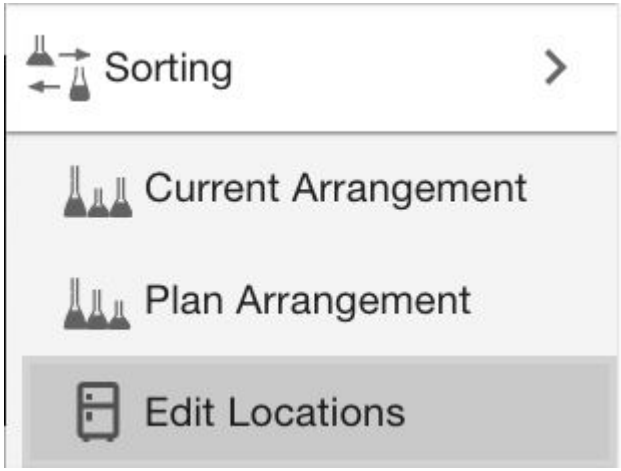
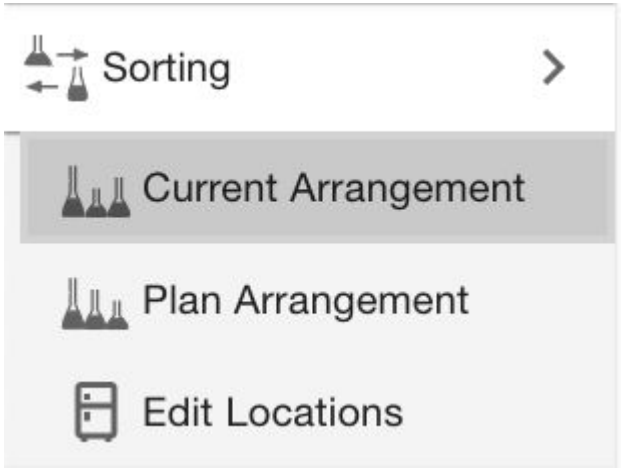
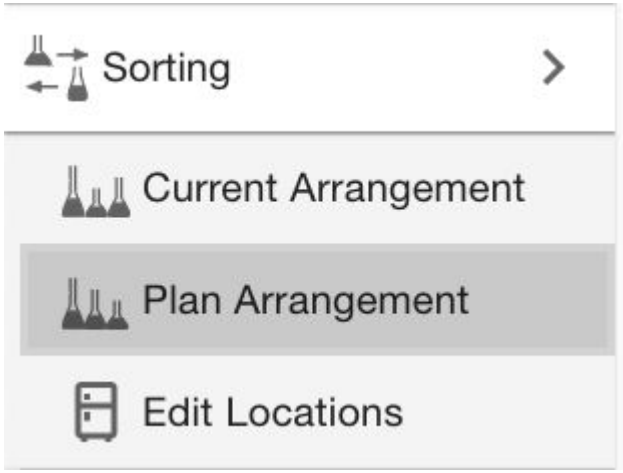
Storage







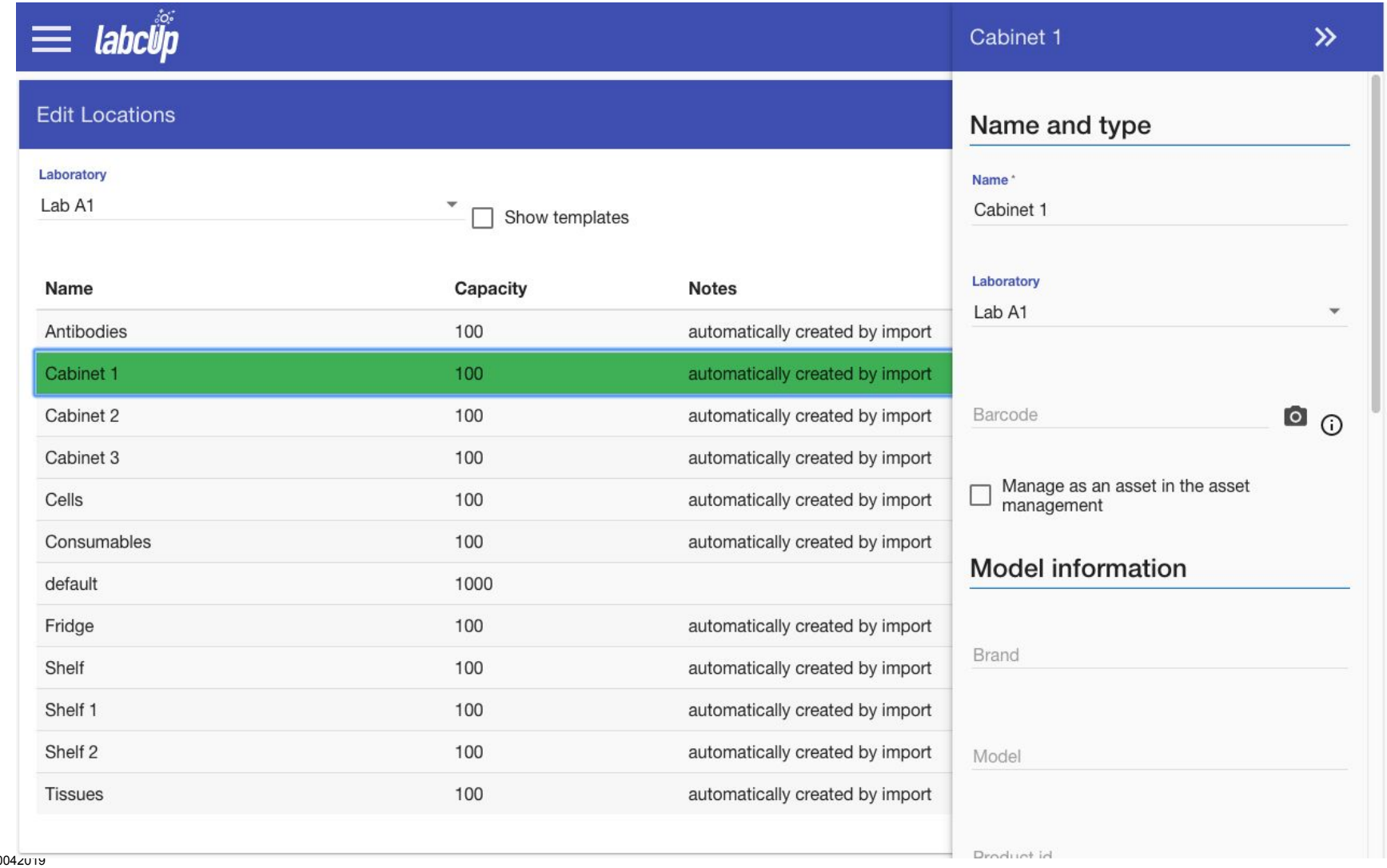
- Locations/cabinets you have
- Edit/delete/modify by hand
- No need to create them in advance

- Hazards in cabinets
- Potential labelling
- Misplaced chemicals

- Plan your locations based on compatibility (experimental)

30042019

Storage - Edit Locations



Storage - Current Arrangement

labcup
www.labcup.net

Current Arrangement of Chemicals

Laboratory

Lab A1

CABINET 1	CABINET 2	CABINET 3	FRIDGE
SHELF	SHELF 1	SHELF 2	SHOW ALL

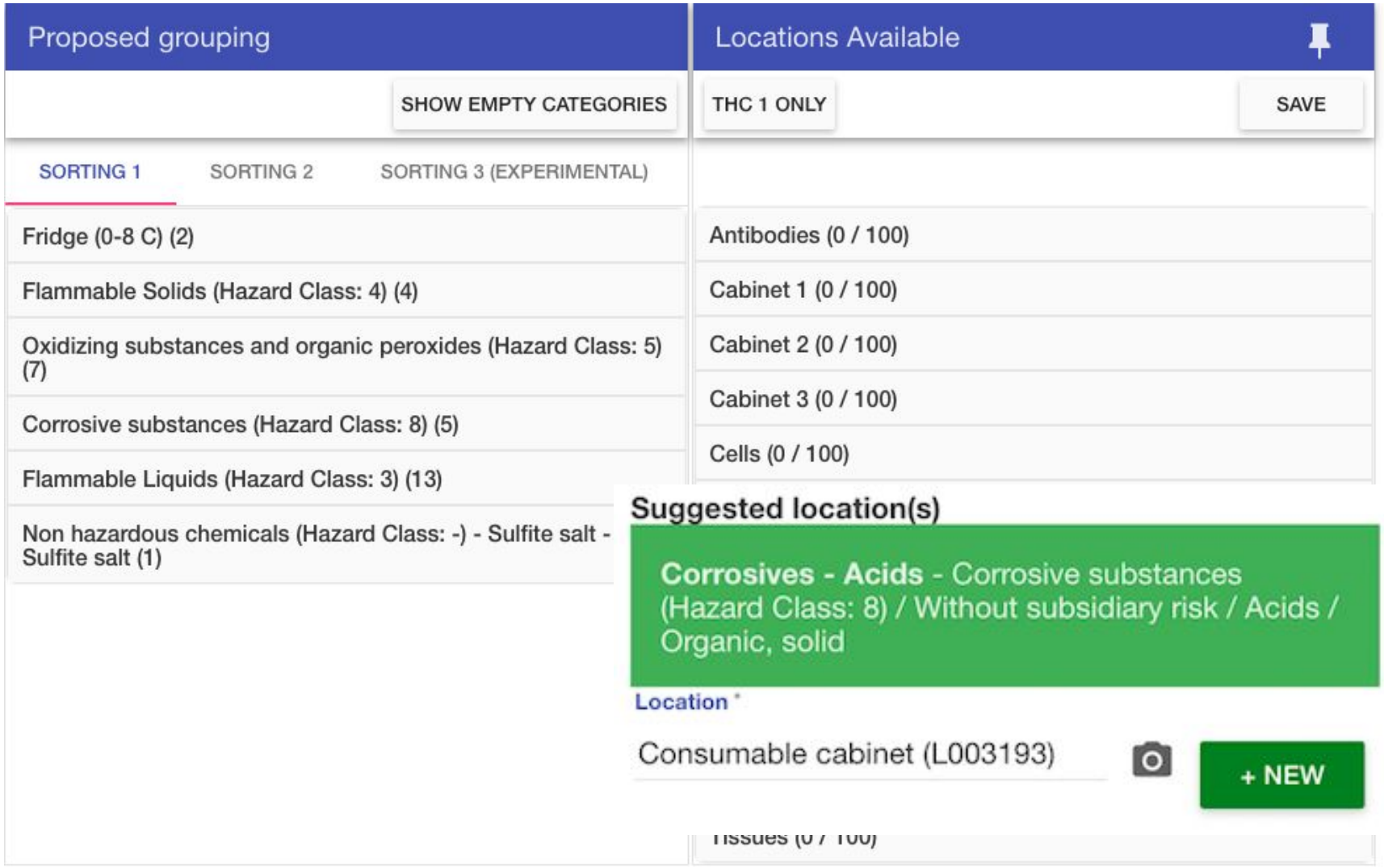
Cabinet 1 (5)

- Flammable Liquids (Hazard Class: 3) (2)
- Flammable Solids (Hazard Class: 4) (1)
- Oxidizing substances and organic peroxides (Hazard Class: 5) (1)
- Corrosive substances (Hazard Class: 8) (1)

Extinguishing media

Labels

Storage - Plan Arrangement (exp.)



Overview

- **User Tasks Overview**

Read

- **User Menu**
- **Finding Chemicals**

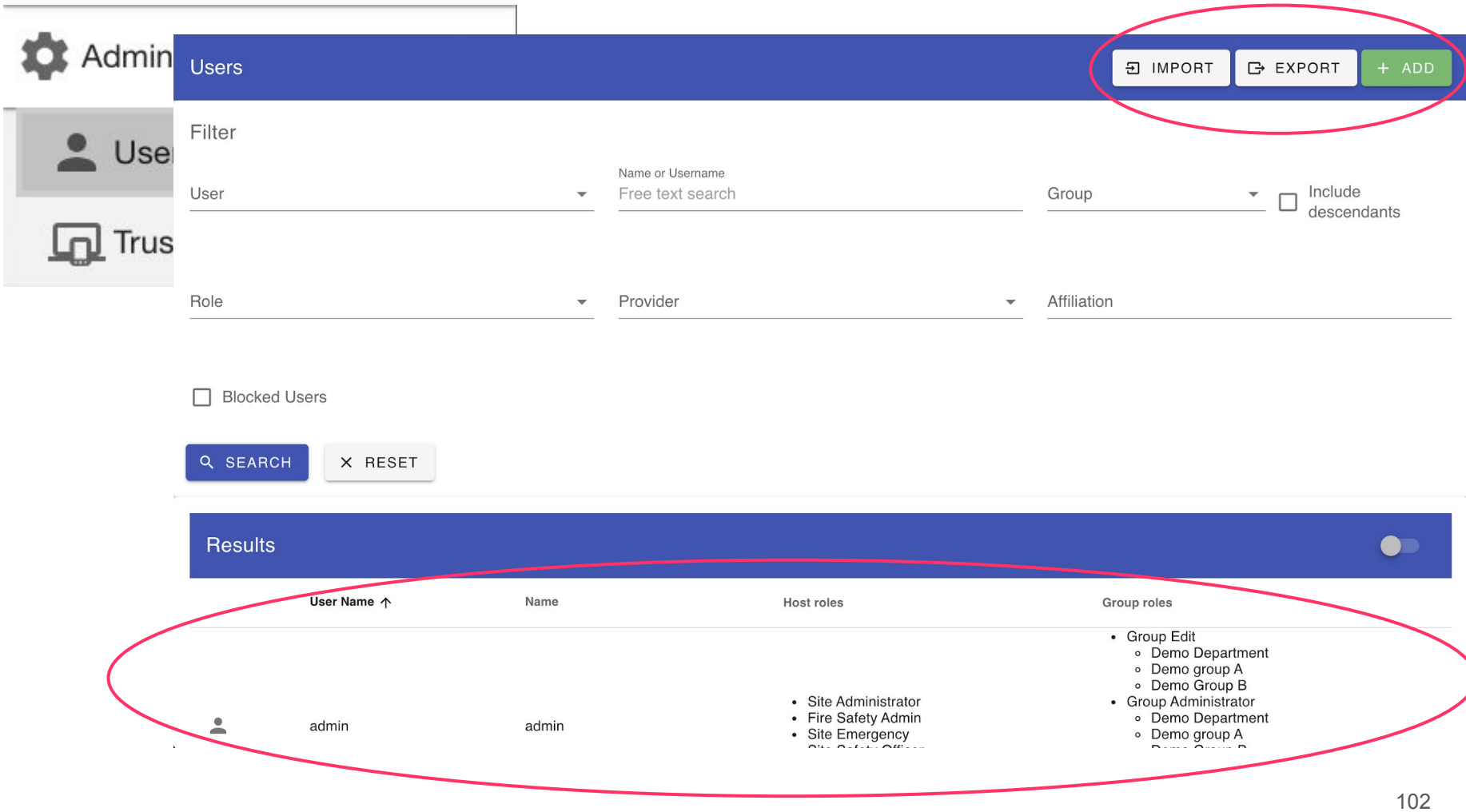
Write

- **Adding Chemicals**
- **Label Printing**
- **Reorder Threshold**
- **Removing Chemicals**
- **Moving Chemicals**
- **Stock Taking**
- **Storage**

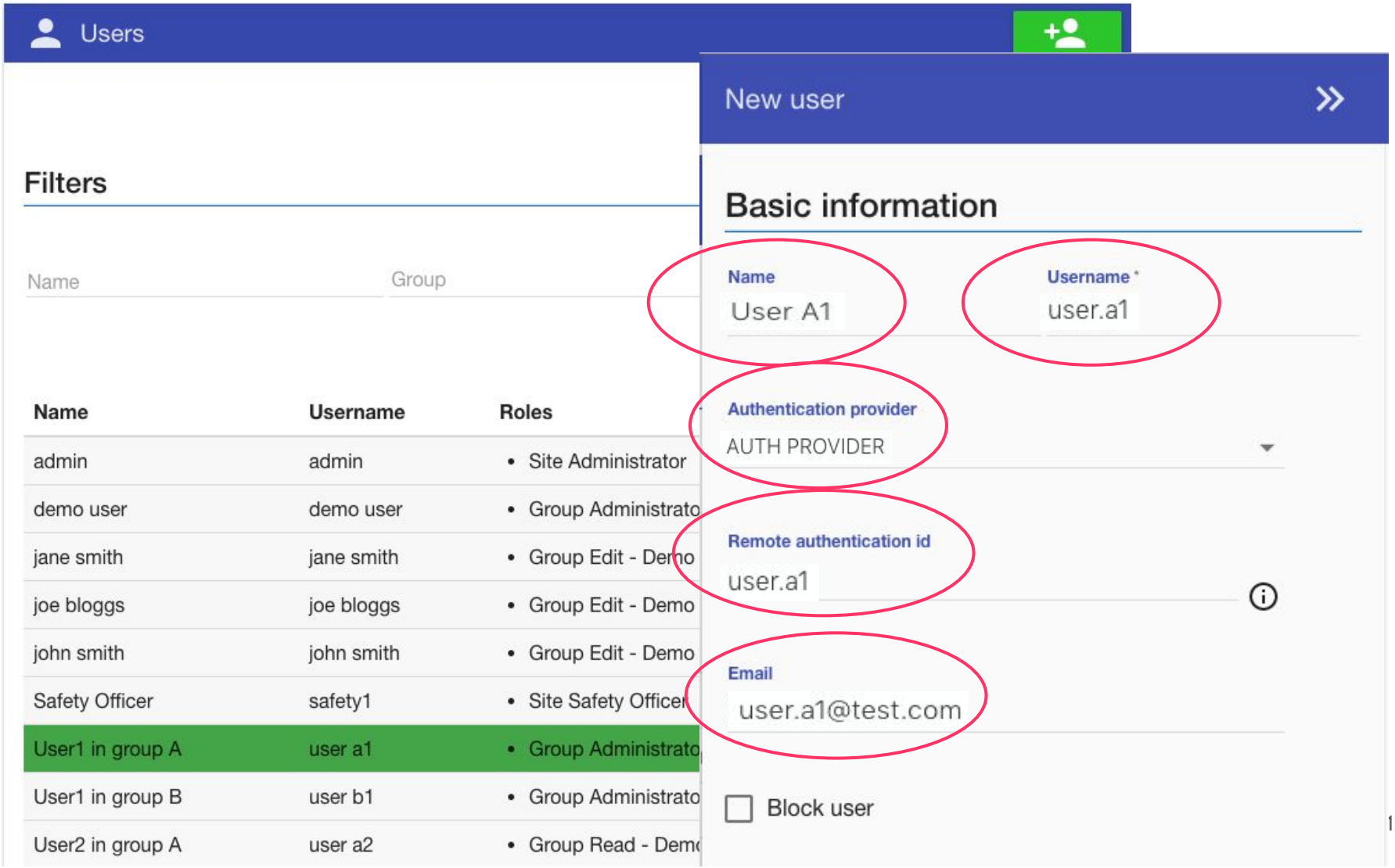
Group Administrator

- **Group User Management**
- **Emergency Page**

Group User Management



Group User Management



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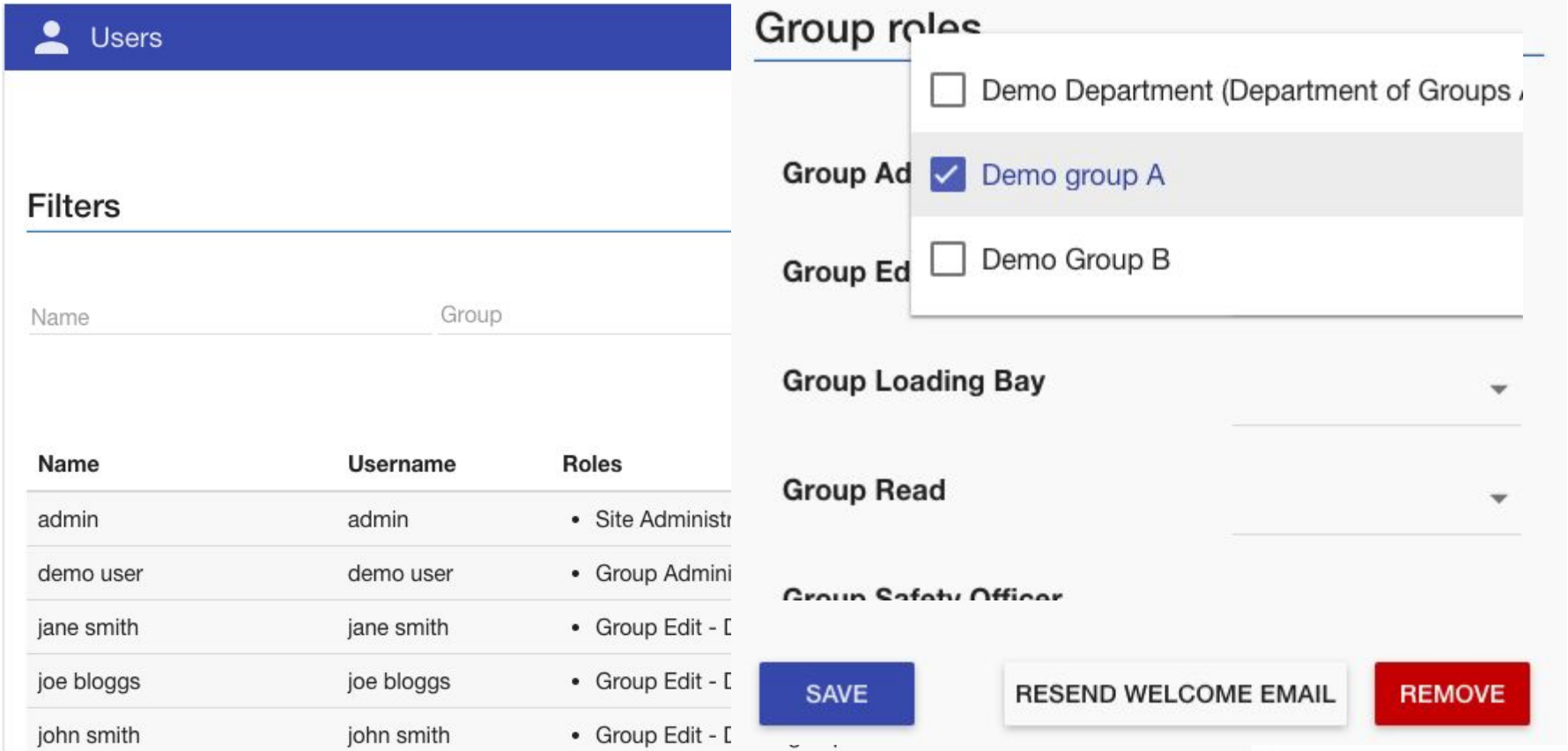

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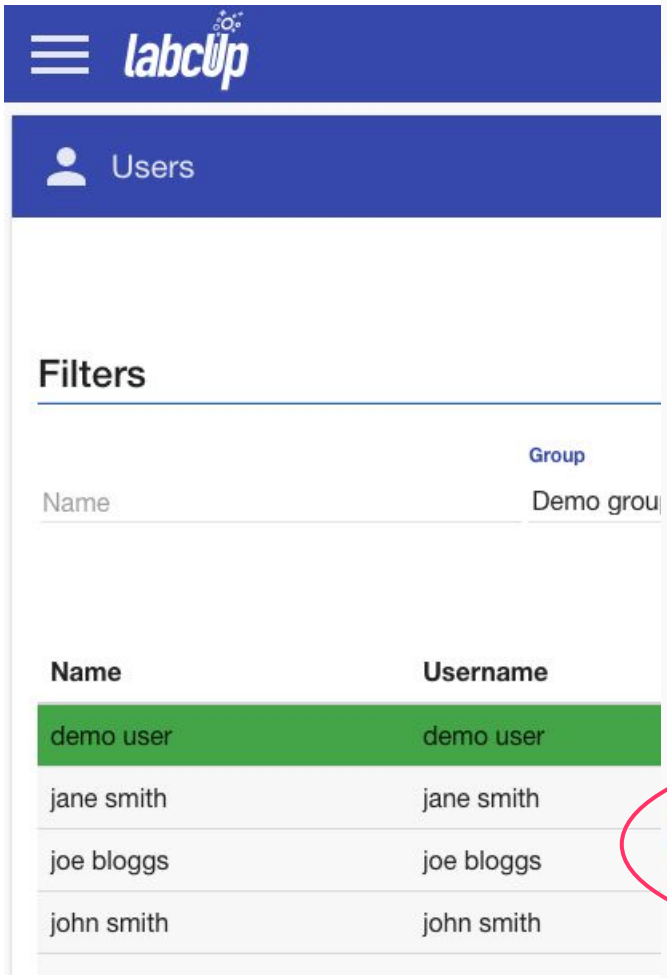


Group roles

Access to groups can only be granted by privilege level

Group Administrator

Group Edit

Group Loading Bay

Group Read

Group Safety Officer

Hazardous Waste Disposal

Warning! User has no access rights and will NOT be able to log in.

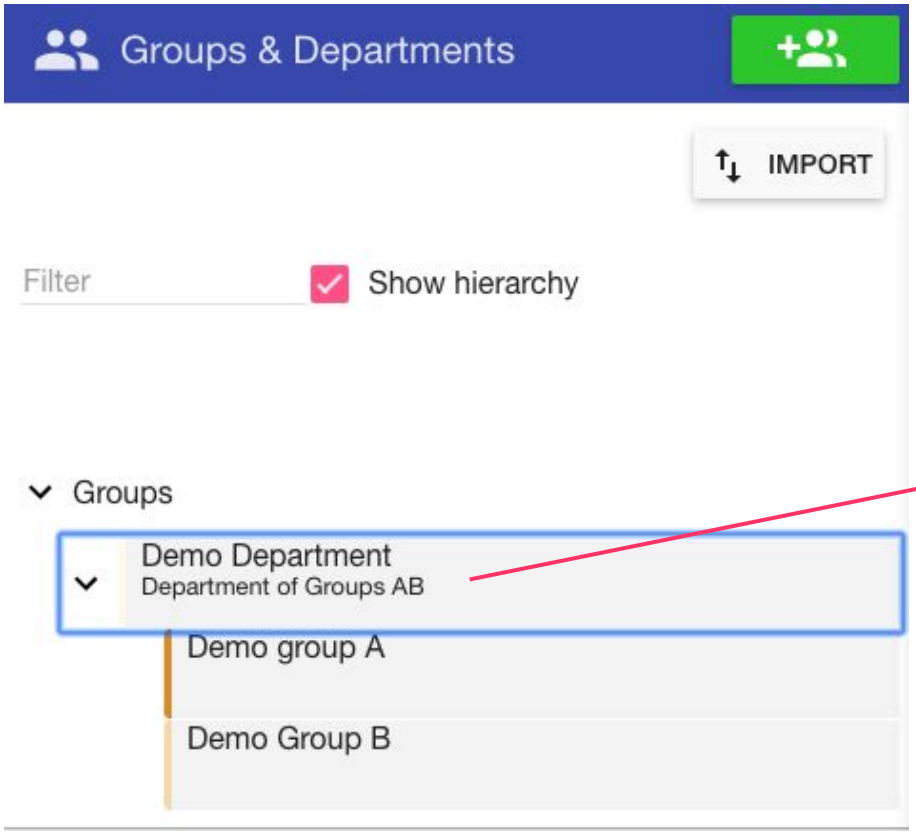
SAVE

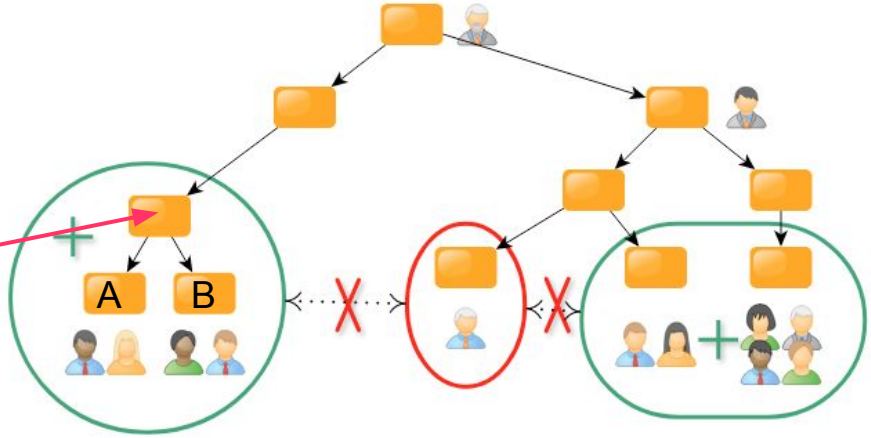
REMOVE

Group User Management

- Users with chemicals can not be deleted but can be blocked
- Users have to have groups otherwise they can not login
- Required user info:
  - Name,
  - Email,
  - SSO ID,
  - Group,
  - Access right

Configuration of Chemical Fields





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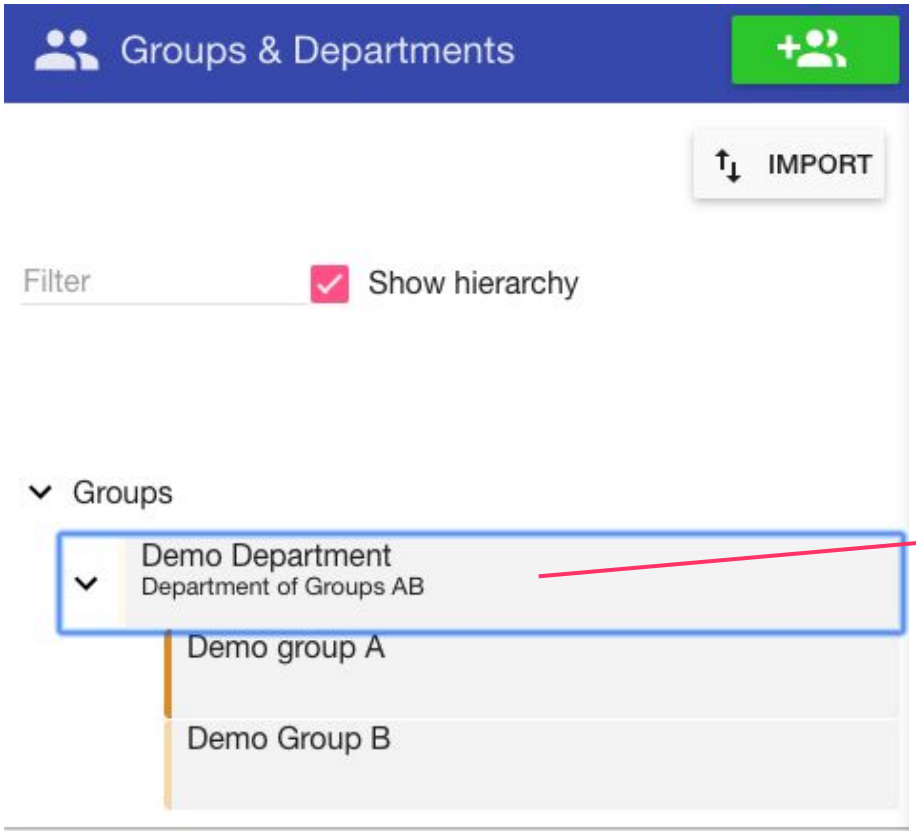

Optional chemical fields

Product information

- Lot information
- EC number
- IUPAC name
- Synonyms
- Note
- Tags
- File attachments
- UUID

Quantity

- Current quantity / weight
- Current gross weight
- Gross weight
- Tare weight

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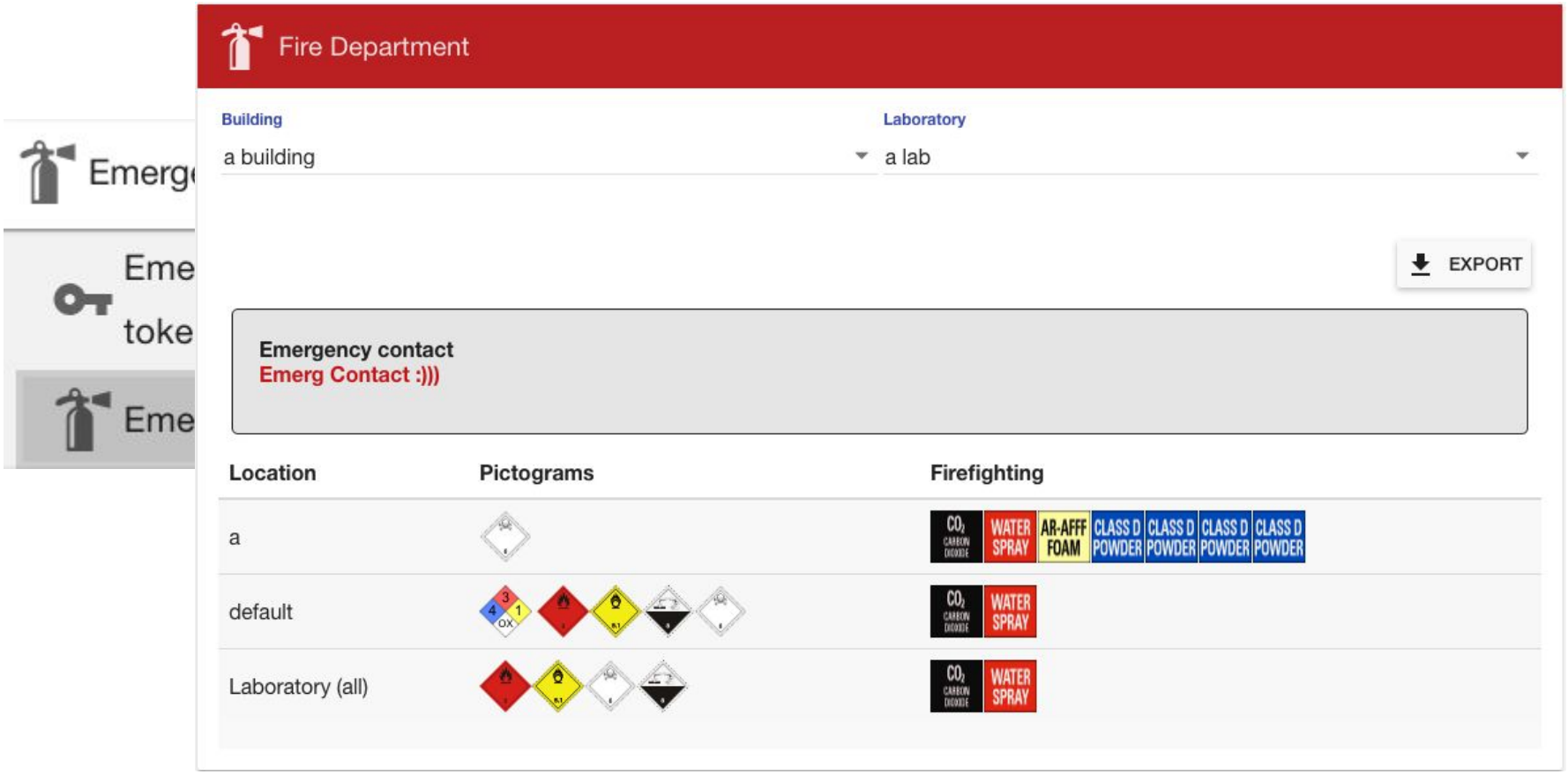
Emergency Page



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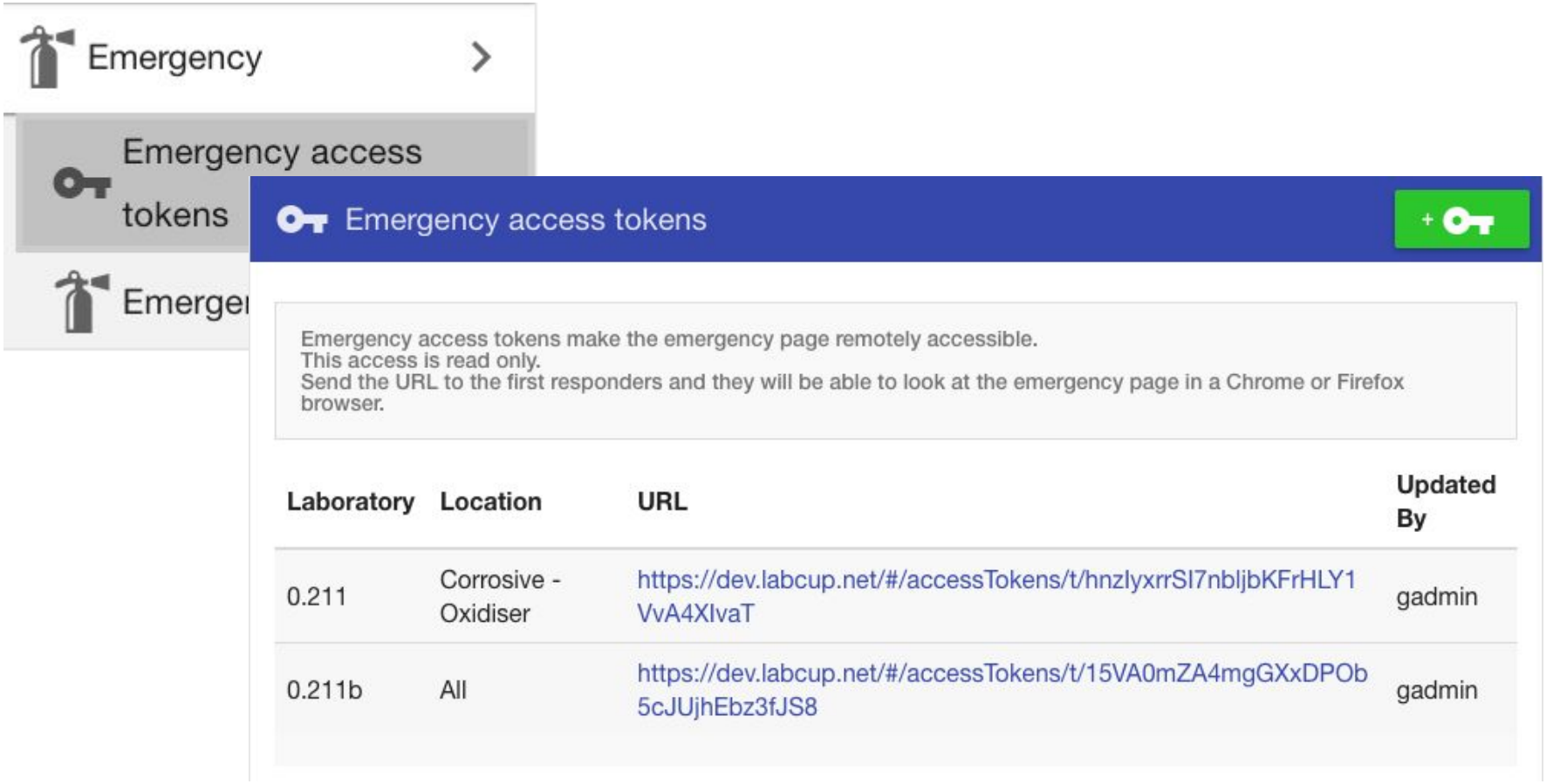
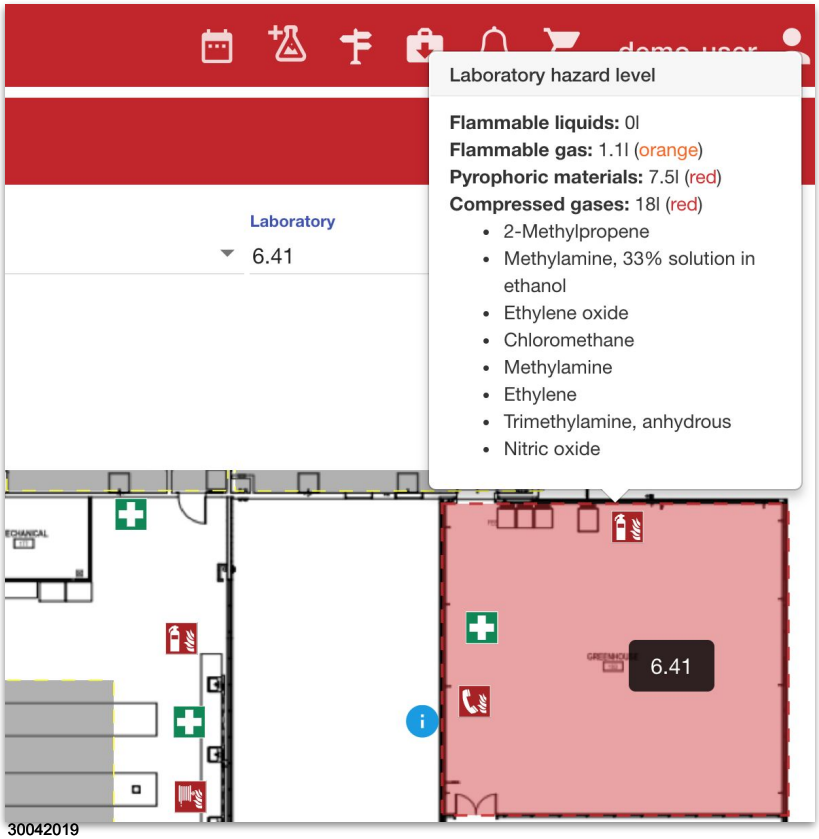
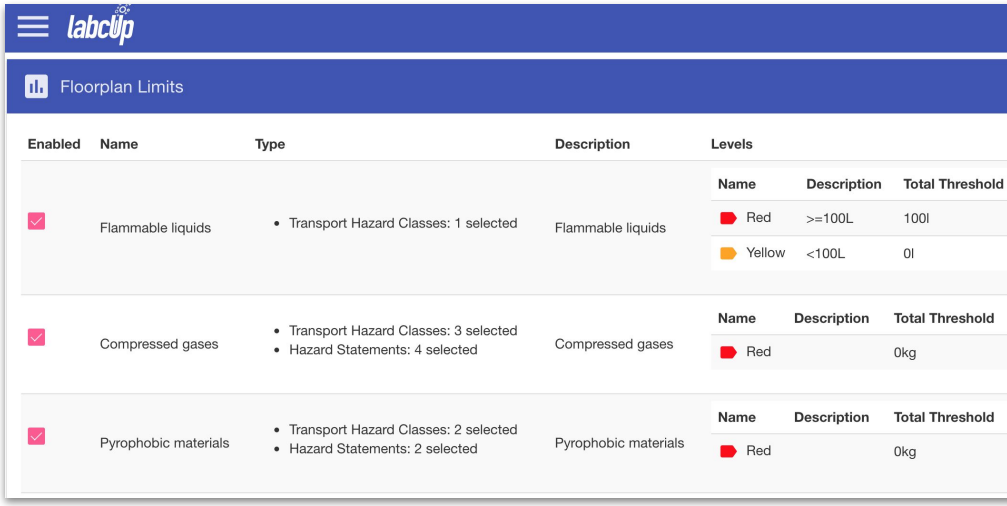
Emergency Page



Emergency Page - Floorplan

- The EHS/Safety Office can set maximum thresholds in labs
- Limits breached highlighted by color





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Thanks for your attention!