



EMS.WASTE

With the EMS.Waste app, your iPad becomes a mobile hazardous waste tracking tool. Use EMS.Waste to track your consolidation and lab pack items into shipping containers, in and out of accumulation areas and on to manifests. Bulk waste material can be tracked in and out of tanks and accumulation areas and into shipping containers for manifesting. Tracking waste is easily performed with a few touches of the screen. Waste can also be tracked with barcode scanning technology. Scan your waste container barcodes with the iPad camera or with a barcode scanning device. EMS.Waste works with various wireless barcode scanning peripherals. Waste tracking data will be synced wirelessly between the EMS.waste mobile app and the EMS Waste web module.



A brief overview

EMS.Waste is an application that connects to an EMS web app installation to perform waste tracking-related operations.

It can operate in two different modes – **online** and **offline**. In online mode, data operations (for example transferring a waste item to a waste drum or displaying a pickup list of accumulation areas to select one) are performed directly on the EMS server, while in offline mode data are downloaded from EMS and uploaded to EMS in batches, when requested by the user. Picking between online and offline mode depends on the way the app is used and the network availability. In offline mode the app works faster, since operations (saving, opening pickup lists) aren't slowed down by accessing the EMS server. On the other hand, in online mode, data is always kept current, since it is sent to the server as soon as it is saved on the iPad. Online needs network access to the EMS server to work at all times, while offline can work without network access – only when the user asks to send data to EMS or retrieve data from EMS the app will connect to the network. If the app is in online mode and network access is not possible, it reverts to offline mode and saves data locally.

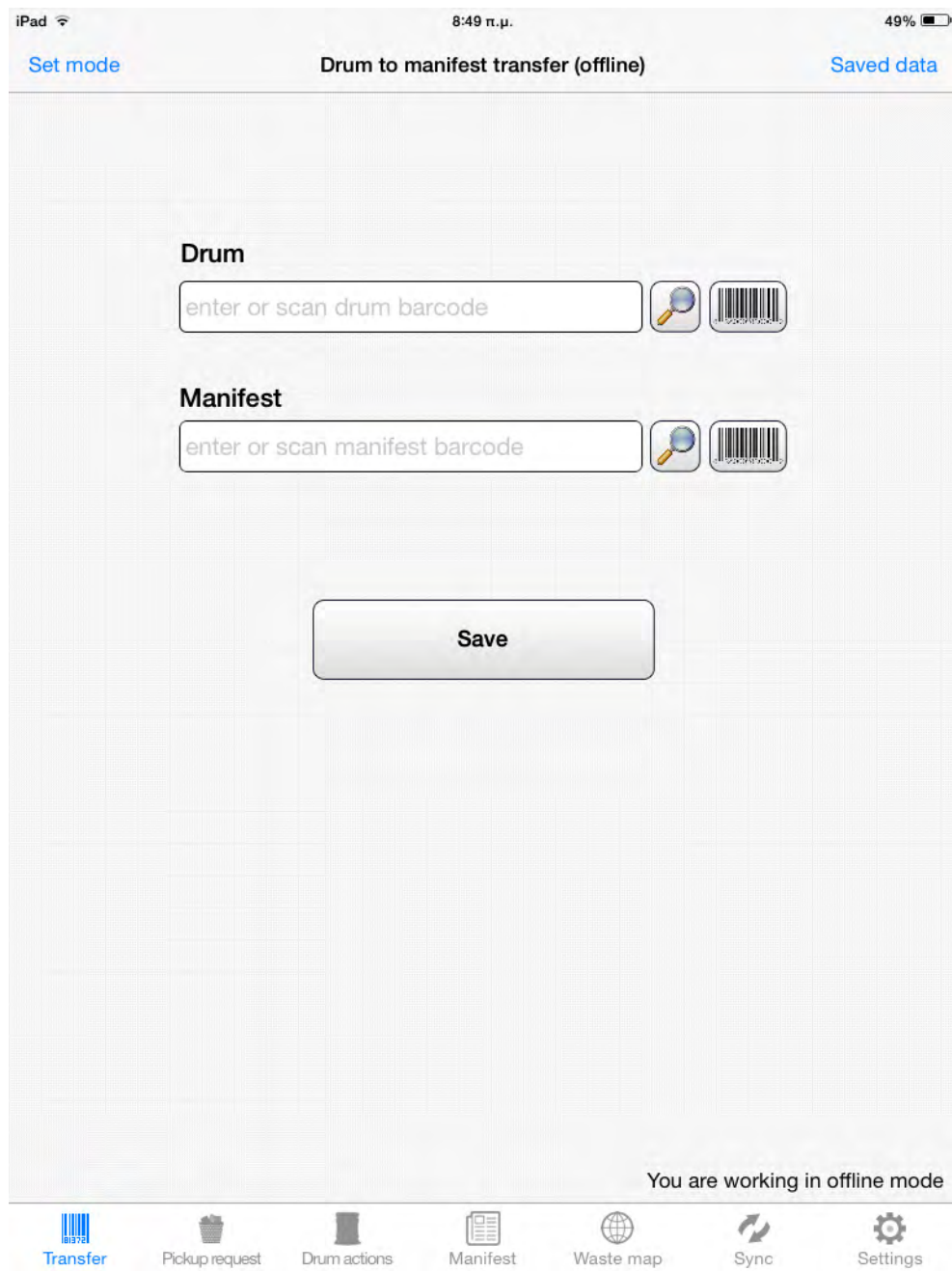
When the app requires network access for the first time, it will prompt the user for his EMS user name and password. See the last chapter of this document for information on the log-in process.

Data entry (where applicable) can be done by typing, selecting data from a lookup list or by scanning. Scanning can be done either using the iPhone/iPad camera or using an external Bluetooth barcode scanner.

The various screens of EMS.Waste are accessed by the tabs at the bottom of the screen:




Transfer



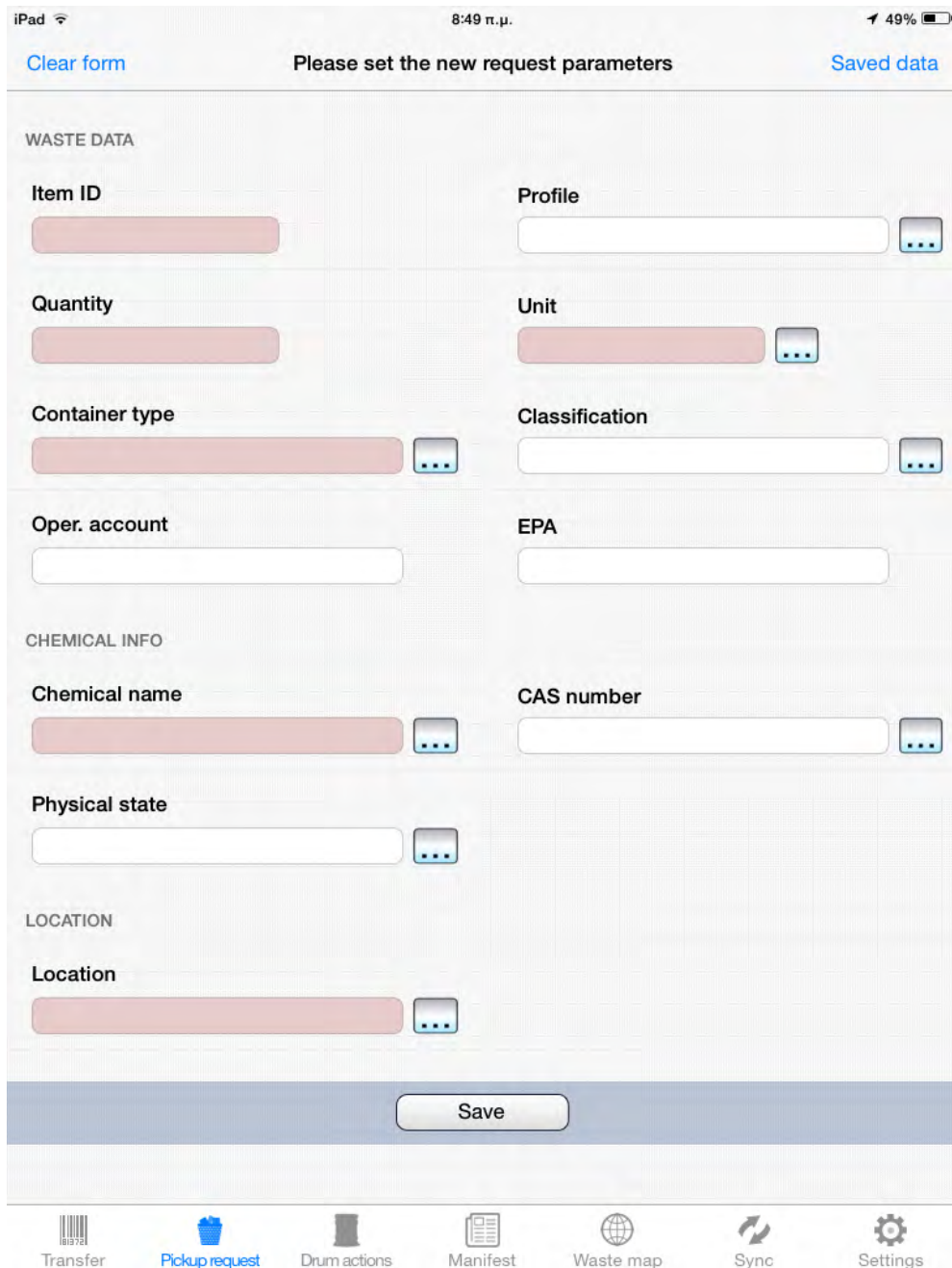
The transfer screen allows the user to quickly perform waste-related transfers. There are six modes of transfer supported:

- Waste Item to Drum
- Waste Item to Accumulation area
- Waste Drum to Tank
- Waste Drum to Accumulation area
- Waste Drum to Manifest
- Waste Drum to another Waste Drum

You can choose the required mode using the “Set mode” button at the top-left. To see a list of the transfers that have already been recorded on the device (but haven’t been sent to the server yet, tap on the “Saved data” button at the top-right. You can edit the list displayed and remove wrong or undesired transfers.

You can use the  button to bring up pickup lists for filling-in the data fields.

Pickup Request



WASTE DATA

Item ID

Profile

Quantity

Unit

Container type

Classification

Oper. account

EPA

CHEMICAL INFO

Chemical name

CAS number

Physical state


LOCATION

Location

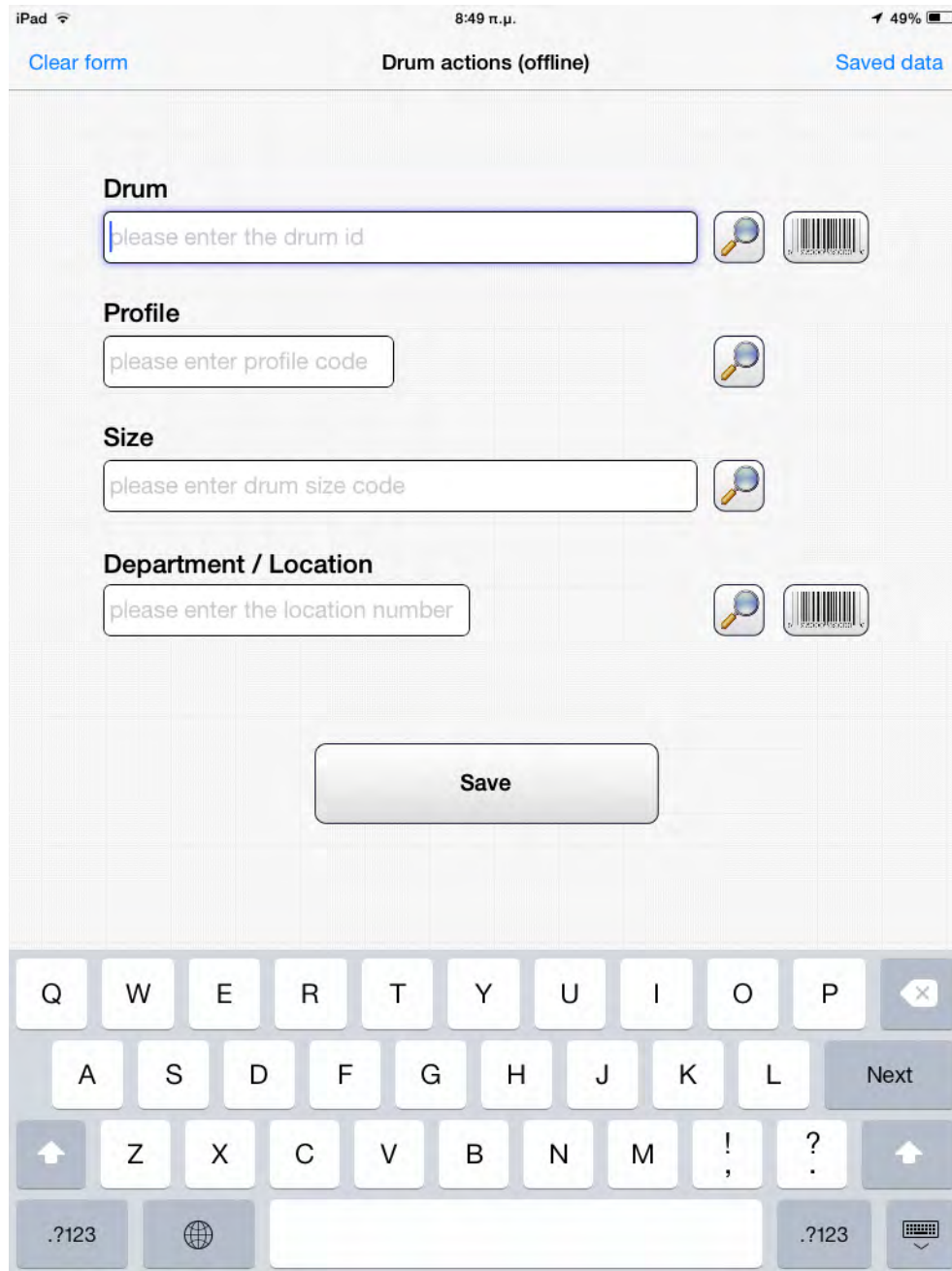
Save

Transfer Pickup request Drum actions Manifest Waste map Sync Settings

The Pickup Request screen is used to place new waste item pickup requests. The orange-shaded fields



are mandatory. To bring up pickup lists for filling-in some fields, use the  button. To clear all fields, use the “Clear form” button at the top-left. To see and manage the pickup requests already placed on the device, use the “Saved data” button at the top-right.


Drum Actions






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Clear form Drum actions (offline) Saved data




Drum
please enter the drum id  

Profile
please enter profile code 

Size
please enter drum size code 

Department / Location
please enter the location number  

Save

Q W E R T Y U I O P 
A S D F G H J K L Next
↑ Z X C V B N M ! , ? . ↑
.?123  .?123 

The Drum Actions screen allows the user to edit waste drums, by filling-in the profile, drum size code and department/location the drum is placed at.

The “Clear form” button at the top-left clears all fields and the “Saved data” button at the top-right allows the use to see and manage the drum actions already made on the device but not set to EMS.

Manifest

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Clear form Drum manifest (offline) Saved data

Drum
please enter the drum id

Weight (in pounds)
please enter the weight

Bay
please enter the bay

Manifest
please enter the manifest

Save

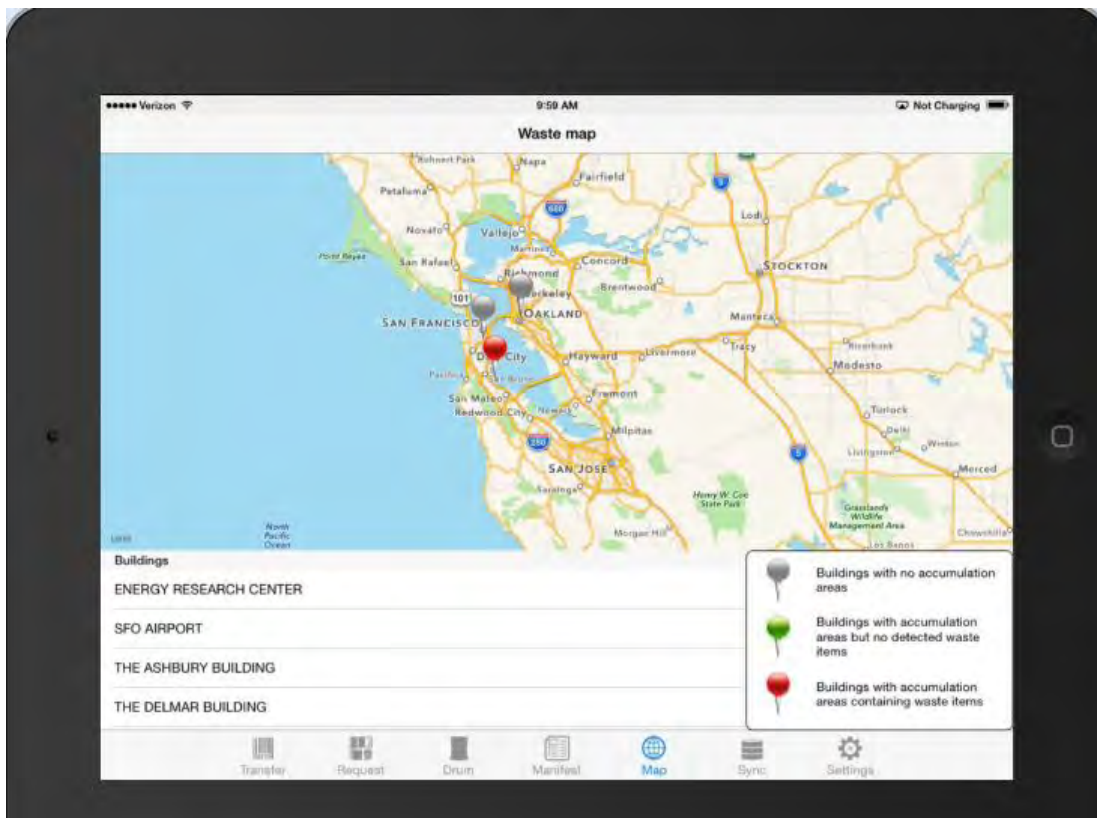
You are working in offline mode

Transfer Pickup request Drum actions Manifest Waste map Sync Settings

The Manifest screen allows the user to edit waste drums by setting the drum weight, bay and manifest the drum is placed in.

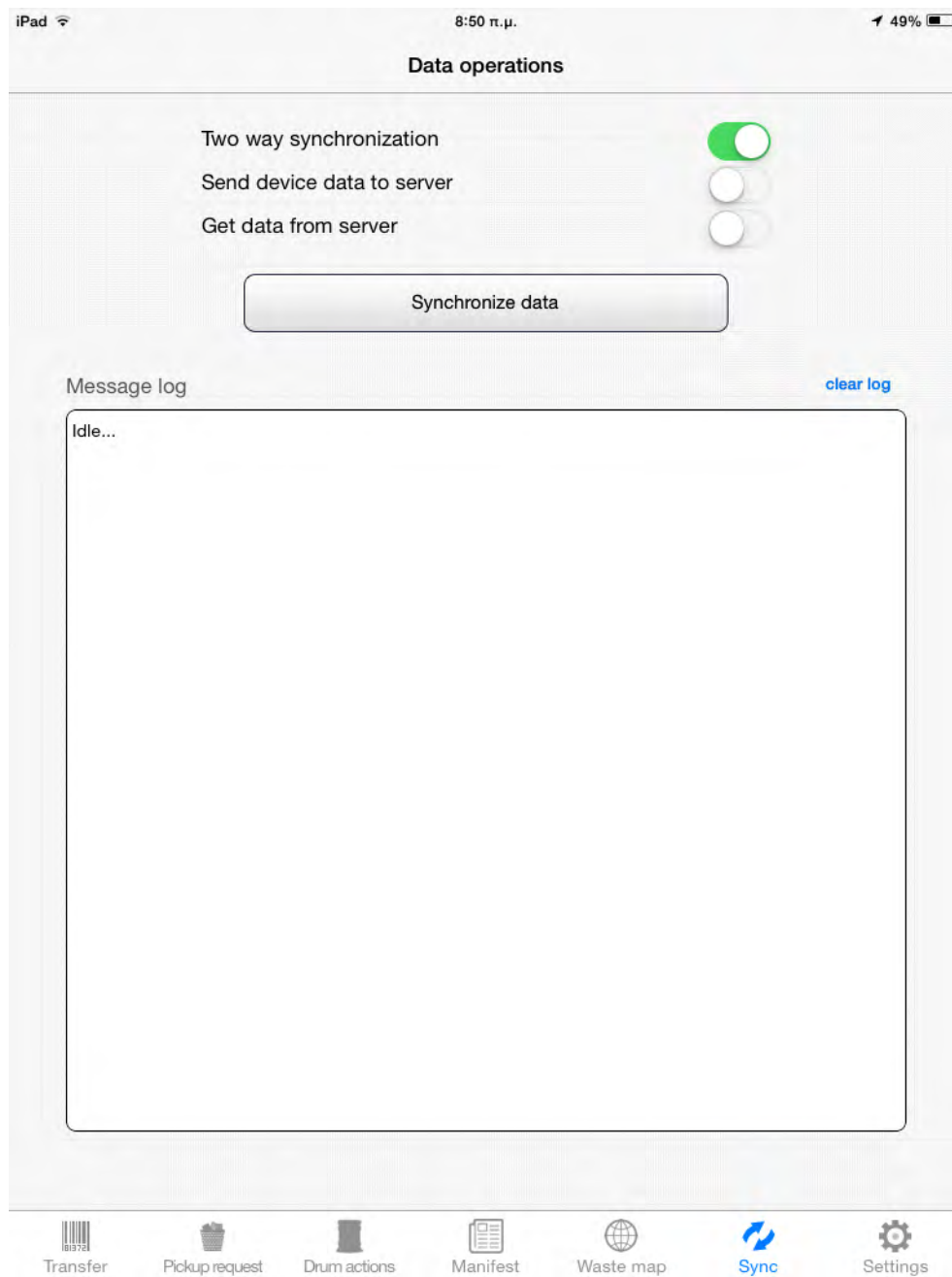
The “Clear form” button at the top-left clears all fields and the “Saved data” button at the top-right allows the use to see and manage the drum manifest data already saved on the device but not set to EMS.

Waste Map



The Waste Map screen operates only in online mode and requires an EMS 5+ server (check the settings screen). It queries the server for the location of building, designated accumulation areas and waste items and displays these on a map. Tapping on a map pin or selecting a building from the list at the bottom-left, shows more info about the selected building.

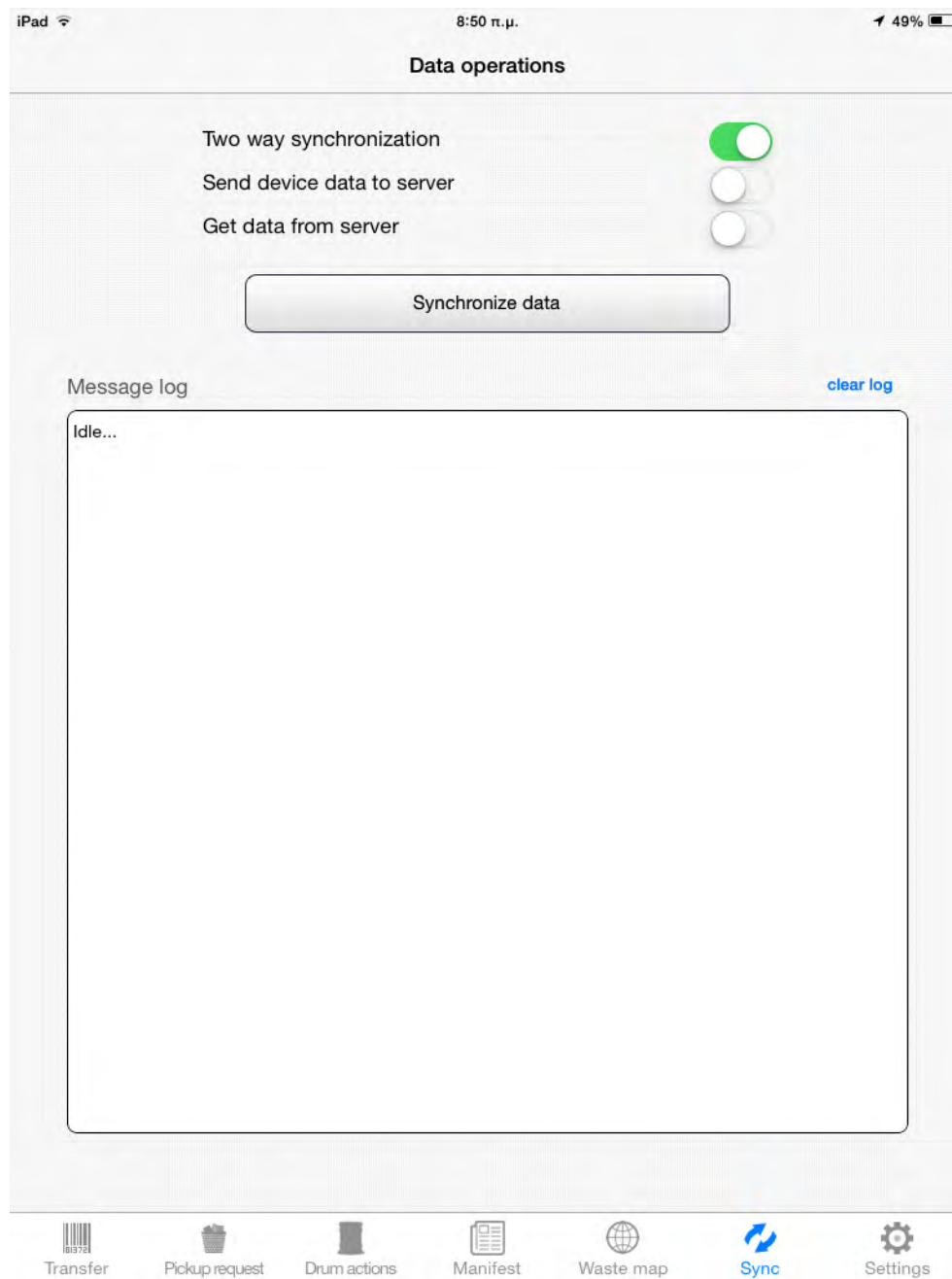
Sync



The Sync screen is used when working in offline mode or when, for any reason (e.g. network problems, log-in problems), you have on your device saved data that you want to send to EMS. The synchronization mode can be set between three options:

- **Two-way synchronization:** Data stored on the device are sent to EMS and then lookup data are received from EMS
- **Send device data to server:** Data stored on the device are sent to EMS
- **Get data from server:** Lookup data are received from EMS

Sync



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Information on the current operation progress is shown at the “Message log” area. You can clear this using the “clear log” button.

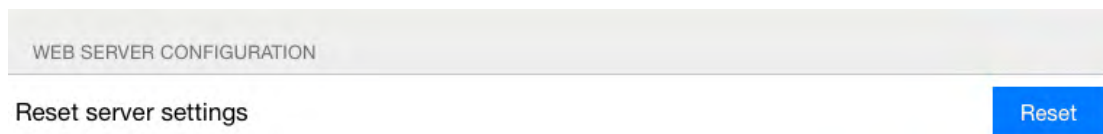
If you work in offline mode and you request data synchronization, EMS.Waste will prompt you for your EMS user name and password.

Settings

The settings screen is divided in four sections, as shown below.



- **Work with live server data:** cycles the app between online and offline mode. When entering online mode, EMS.Waste will prompt you for your user name and password.



This section is for connecting the app to the EMS web app and the information requested here should be provided by your EMS administrator or Chemical Safety Software:

- **Reset demo settings:** Use this to reset EMS.Waste web server configuration to point to the EMS demo server.

DATA ENTRY

Auto save on scan
Automatically save when both fields are filled after scanning

Transfer form / Delete first field
After saving, delete the first data entry field in the transfer form

Transfer form / Delete second field
After saving, delete the second data entry field in the transfer form

Manifest form / Multiple drums mode
After saving, delete the drum and weight fields in the manifest form

Default form
Select the form that will appear first at application startup

Transfer Request Drum Manifest

This section sets how data forms behave when after saving:

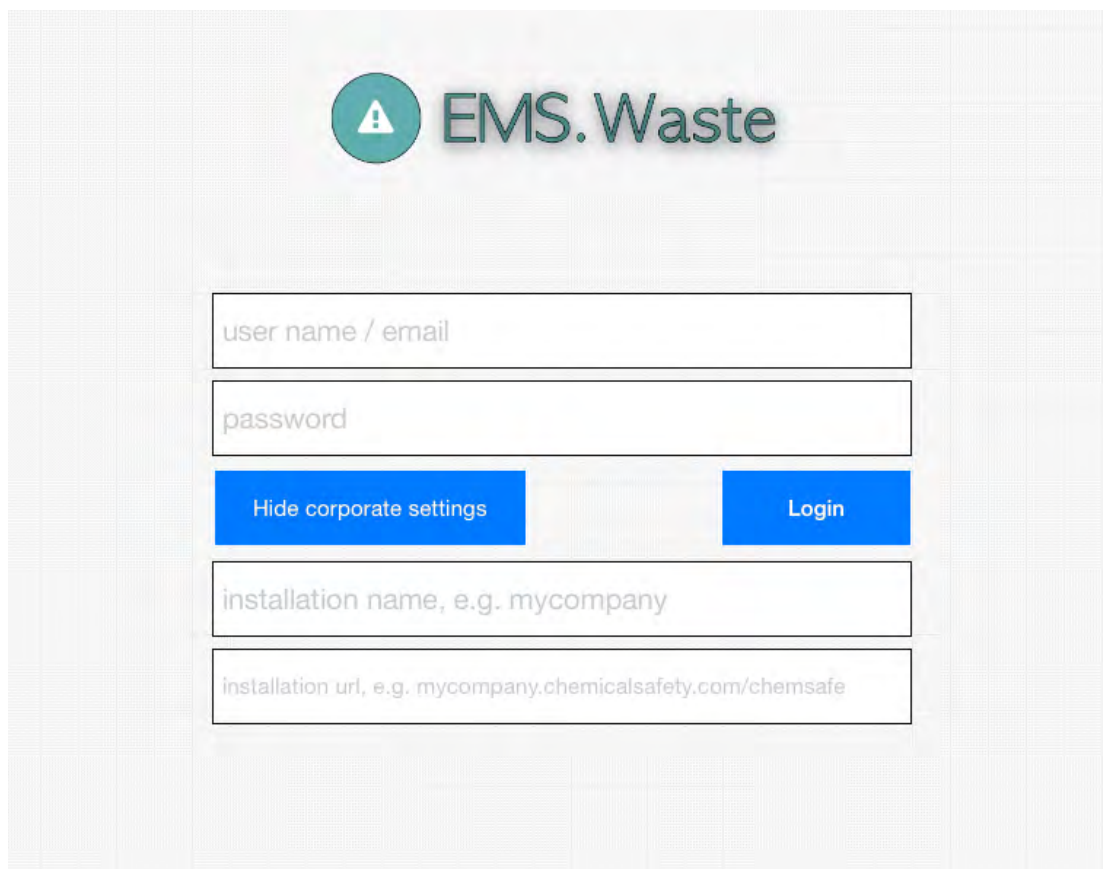
- **Auto-save on scan:** Enable this to automatically save data in the app’s data screens when the last field value is scanned (either using the camera or an external barcode scanner).
 - **Transfer form / Delete first field:** Enable this to clear the first field in the transfer form after saving.
 - **Transfer form / Delete second field:** Enable this to clear the second field in the transfer form after saving.
 - **Manifest form / Multiple drums mode:** Enable this to delete the drum and weight fields in the manifest form, keeping the bay and manifest fields unchanged.
- The three options above are useful for speeding up the process when using EMS.Waste to scan multiple values. For example, in the Transfer form, when you want to transfer multiple waste items to a waste drum, you set the Transfer screen in “Item to Drum mode” and enable the “Transfer form / Delete first field”: after saving each transfer, the waste drum field will be kept intact and the waste item field will be cleared, ready for the next value. Couple this with the “Auto save on scan” option for speed up things even more.
- **Default form:** Set which screen will be shown when EMS.Waste loads for the first time.

MISCELLANEOUS

Delete all data on device Delete

- **Delete all data on device:** deletes all data that have been stored on the device, i.e lookup data downloaded by the app and records created by the user. Be careful when deleting records that have been created in offline mode and haven’t been sent to the server using the “Sync” screen.

Logging-in and troubleshooting



The screenshot shows the EMS.Waste login interface. At the top is the logo, which consists of a green circle with a white triangle containing an exclamation mark, followed by the text 'EMS.Waste'. Below the logo are five input fields. The first field is labeled 'user name / email'. The second field is labeled 'password'. Between the second and third fields are two buttons: 'Hide corporate settings' (a blue button) and 'Login' (a blue button). The third field is labeled 'installation name, e.g. mycompany'. The fourth field is labeled 'installation url, e.g. mycompany.chemicalsafety.com/chemsafe'.

EMS. Waste supports many different connection scenarios and the gateway to these is the Log-in screen.

The log-in screen by default appears with two fields, allowing the user to enter his/her user name & password, in order to Log-in. Some connection scenarios require more fields, which appear using the “Corporate user” button.

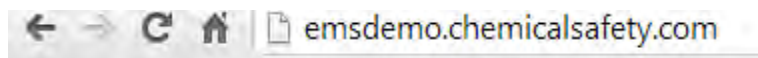
Common scenarios

User type	How to tell	Settings to use
Individual user	I connect to <i>cloud.chemicalsafety.com</i> to use EMS	Fill in the user name/email and password fields, as you do in your EMS web app.
Corporate user (hosted by Chemical Safety)	I connect to <i><my_server>.chemicalsafety.com</i> (where <i><my_server></i> is the installation name provided to my company) to use EMS	Bring up the corporate user settings and enter: 1. Your user name 2. Your password 3. Your installation name (the <i><my_server></i> part, see below) 4. Your complete EMS application URL: <i><my_server>.chemicalsafety.com/chemsafe</i> . The “chemsafe” part is displayed on your

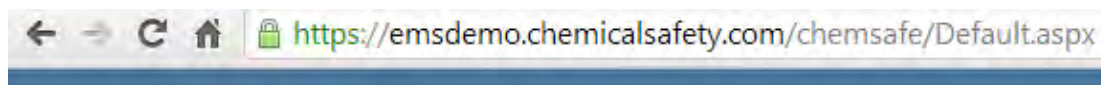
Corporate user (custom installation)		browser's address bar, when you use the EMS web app.
	I connect to a URL provided to me by my network administrator.	You should contact your network administrator for specific instructions, but, usually, you should enter your user name, your password, your installation name and the full URL of your EMS web app installations, including the app suffix. See below about this.

Installation name and the app suffix

When you connect to the EMS web app, you will see in your browser's address bar the full address of the app, for example, when you connect to the EMS public demo installation, entering:



Your browser will connect and then display the full URL, as seen below:



In this example, "emsdemo" is the installation name and "chemsafe" is the app suffix. So, to connect to this installation, you should enter:

- a. <User name>
- b. <Password>
- c. emsdemo
- d. emsdemo.chemicalsafety.com/chemsafe

Other things of concern

If you don't set the "http" or "https" part of the application URL, EMS.Waste assumes by default that it is a secure address starting by "https".

