University of Alberta
Environmental Health and Safety Tracking Software

# CHEMATIX™ Waste Management Module

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# Waste Management

The Waste Management module enables laboratory and regulatory personnel to manage all aspects of chemical disposal. All waste and its corresponding status can be tracked in detail at any point in the system. This module is a critical component of environmental health and safety, assisting in the assurance that each institution is in regulatory compliance with all local, regional, state and federal governing authorities.

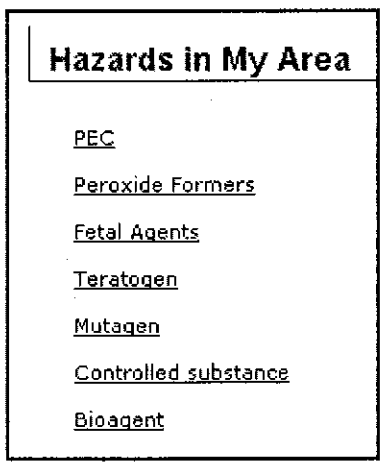
# Lab Personnel Waste Management

Waste management duties for users such as lab personnel, lab supervisors, principal investigators etc. include the monitoring of local hazards, waste card creation and waste pickup worksheet submission. These functionalities will be described below.

## *Hazards in my area*

Click the Waste button at the top of the CHEMATIX™ screen:


Scroll down to the Generate Hazards in My Area Report link, and click on it.




This list of chemical hazards is a configurable option defined by your institution and can be added to, changed, or modified by a CHEMATIX™ System Administrator. If you have any questions about Hazards in Your Area, contact your Environmental Health and Safety personnel.

For example, a definition for a teratogen is given as:

**Teratogens** are chemicals that may cause non-inheritable genetic mutations or malformations in the developing fetus (= birth defects). Teratogens may halt the pregnancy outright.

If you wish to view all of the teratogens in your area, click the Teratogen link.

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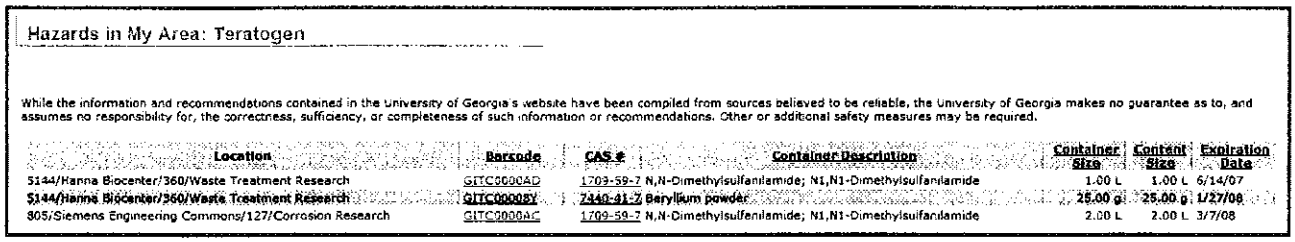
A list of all teratogens in your lab locations is generated on page [WM478], for example:



Hazards in My Area: Teratogen

While the information and recommendations contained in the University of Georgia's website have been compiled from sources believed to be reliable, the University of Georgia makes no guarantee as to, and assumes no responsibility for, the correctness, sufficiency, or completeness of such information or recommendations. Other or additional safety measures may be required.

| Location | Barcode | CAS # | Container Description | Container Size | Content Size | Expiration Date |
|---|---|---|---|---|---|---|
| S144/Hanna Biocenter/360/Waste Treatment Research | GITC0000AD | 1709-59-7 | N,N-Dimethylsulfanilamide; N1,N1-Dimethylsulfanilamide | 1.00 L | 1.00 L | 6/14/07 |
| S144/Hanna Biocenter/360/Waste Treatment Research | GITC0000BY | 7440-41-7 | Beryllium powder | 25.00 g | 25.00 g | 1/27/08 |
| 305/Siemens Engineering Commons/127/Corrosion Research | GITC0000AC | 1709-59-7 | N,N-Dimethylsulfanilamide; N1,N1-Dimethylsulfanilamide | 2.00 L | 2.00 L | 3/7/08 |

## *Waste Card Creation*

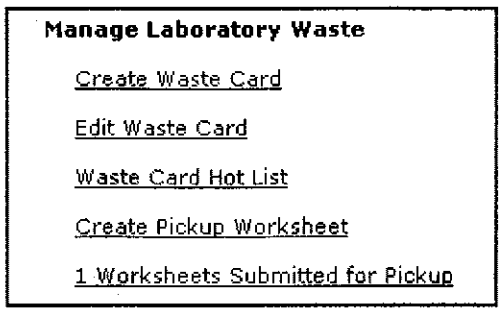
When creating chemical waste it is important to keep track of what chemicals are being wasted, either individually or by adding to a mixture of chemical waste. This is done by creating a waste card that contains information about individual waste containers.

### By Quantity

Click the Waste button at the top of the CHEMATIX™ screen:


You will now see the opening page for **Waste Management** [WM402].

Scroll down to:

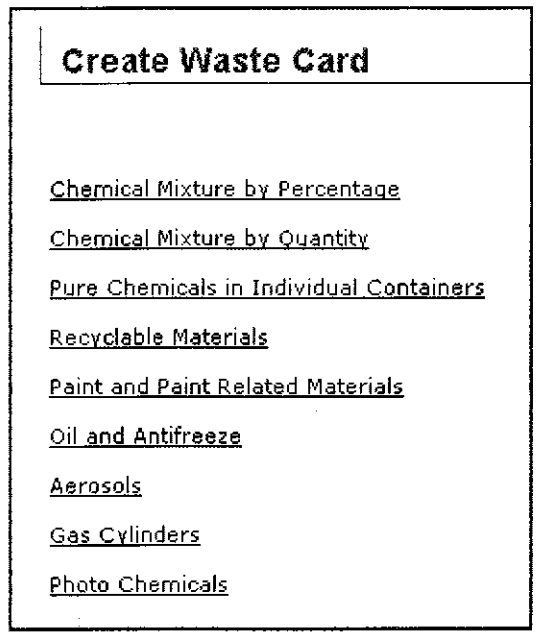


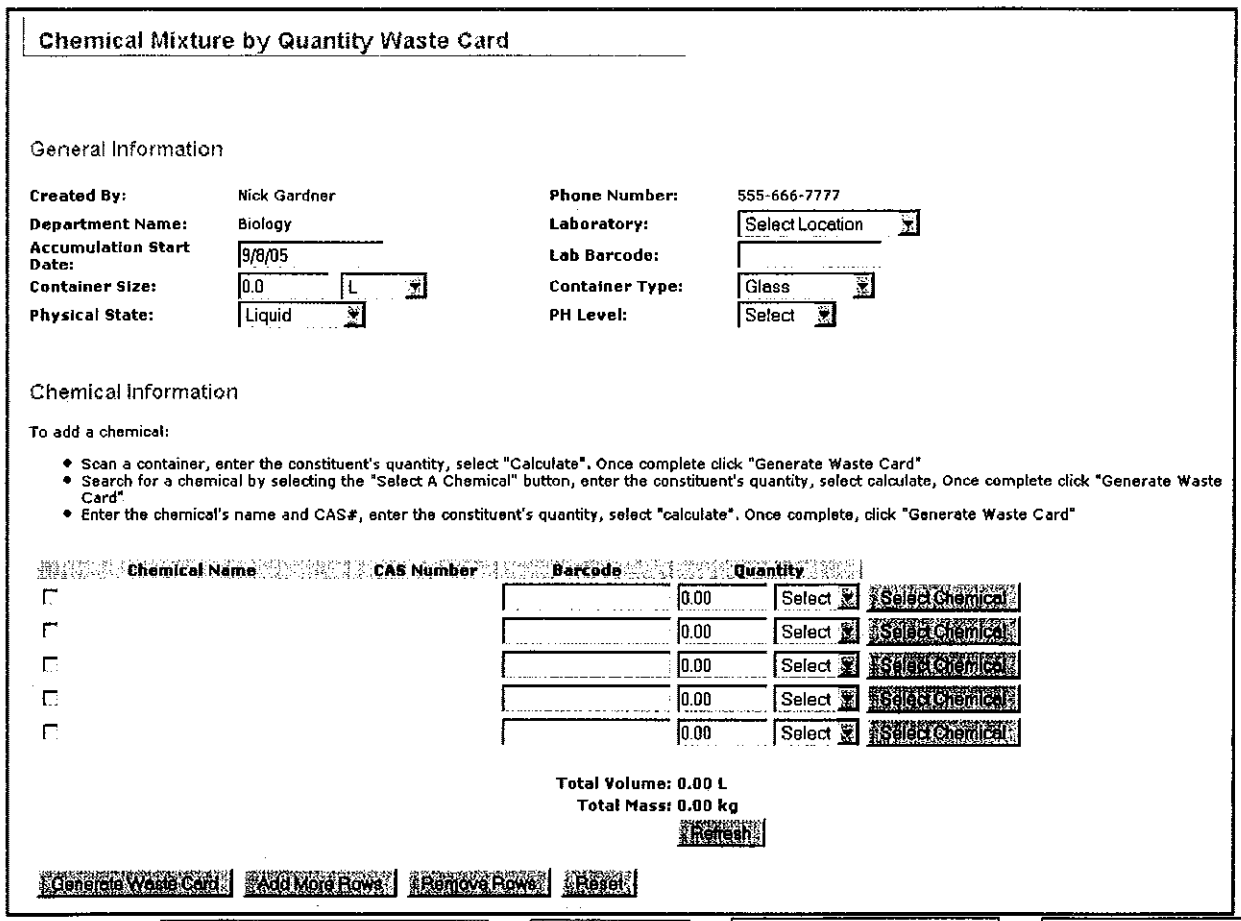

Click on the link Create Waste Card .

Click Chemical Mixture by Quantity .

Other types of waste cards can also be created, either for waste chemical mixtures by percentage, pure chemicals in individual containers or for more generic products such as recyclable materials, paint, oil, aerosols etc. The availability of these options can be added to, changed, or modified by a CHEMATIX™ System Administrator. If you have any questions about the types of creatable waste cards, contact your Environmental Health and Safety personnel.

**Instructor explains different types of waste cards**






Select the **Accumulation Start Date:**, **Laboratory:**, **Container Size/Unit:**, **Container Type:**, **Physical State:**, and the **PH Level:**.

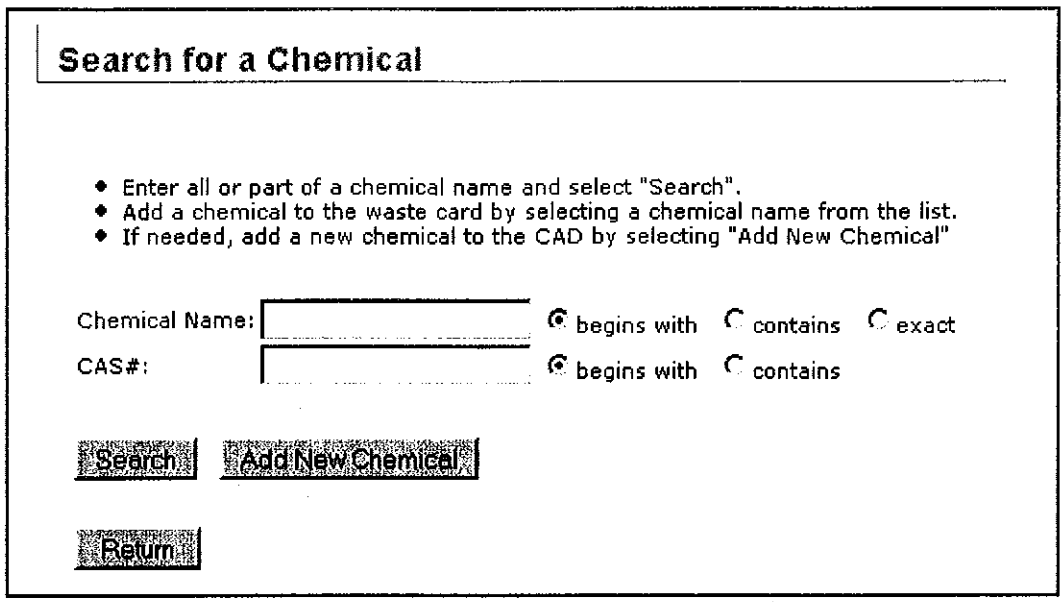
**There are two options for selecting chemicals**

**Option 1:** Enter the barcode of the chemical container.
For each chemical, scan or enter the container's barcode.

Enter the quantity/units of this chemical in the mixture.

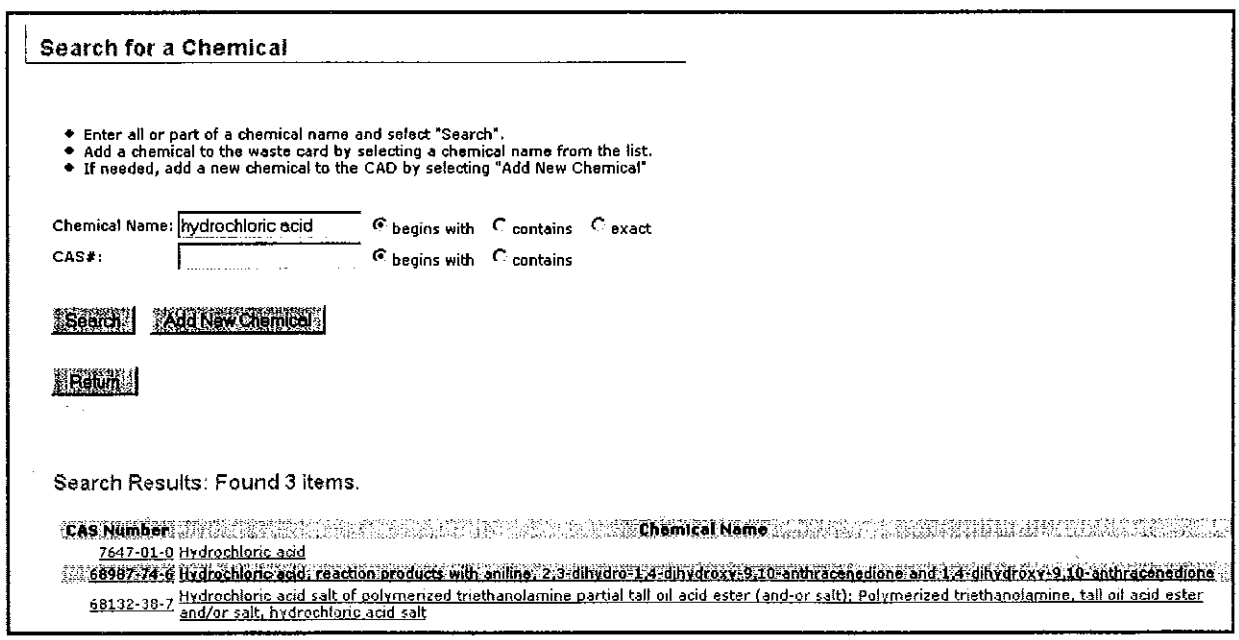
**Option 2:** Search for and select a chemical by clicking Select Chemical.

After clicking Select Chemical, you will now be transferred to page [WM453]:

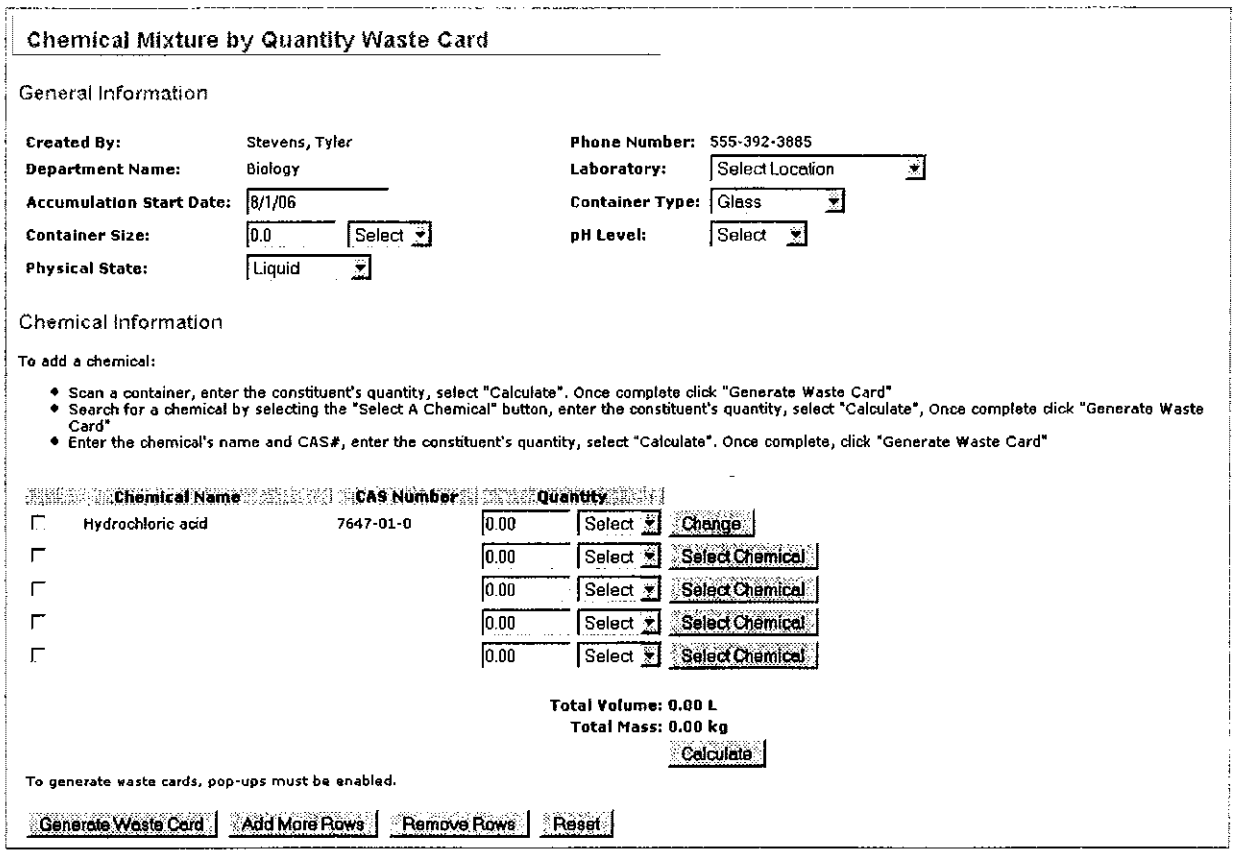



Enter the Chemical Name or the CAS# into the appropriate fields.

Click Search to search for your Chemical Name or CAS# in CAD.




Click the Chemical Name from the generated list (for example, Hydrochloric acid ) to




Enter the quantity/units of this chemical in the mixture.

**After you have added all necessary chemicals to your waste card:**

Click  to view and print your Waste Card in PDF format.



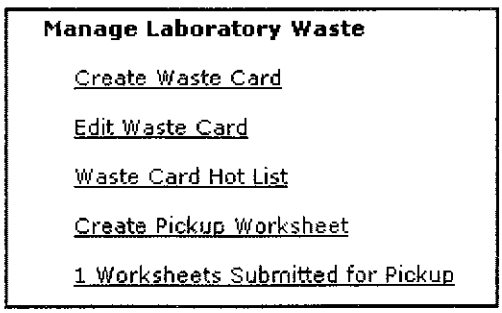
## By Percentage

Click the  button at the top of the CHEMATIX™ screen:




You will now see the opening page for  [WM402].

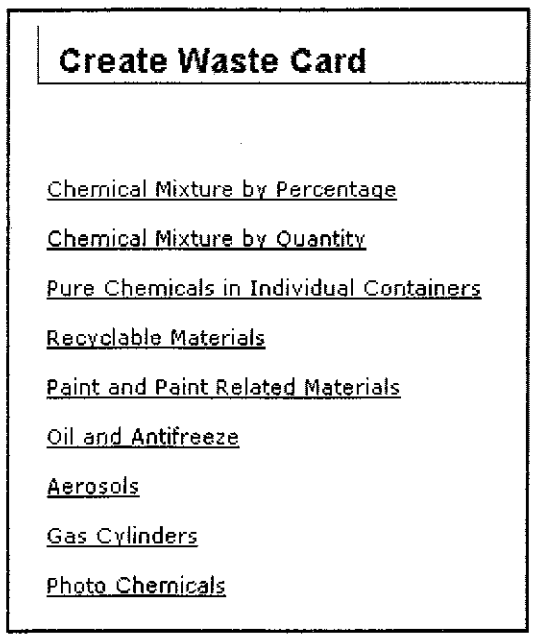
Scroll down to

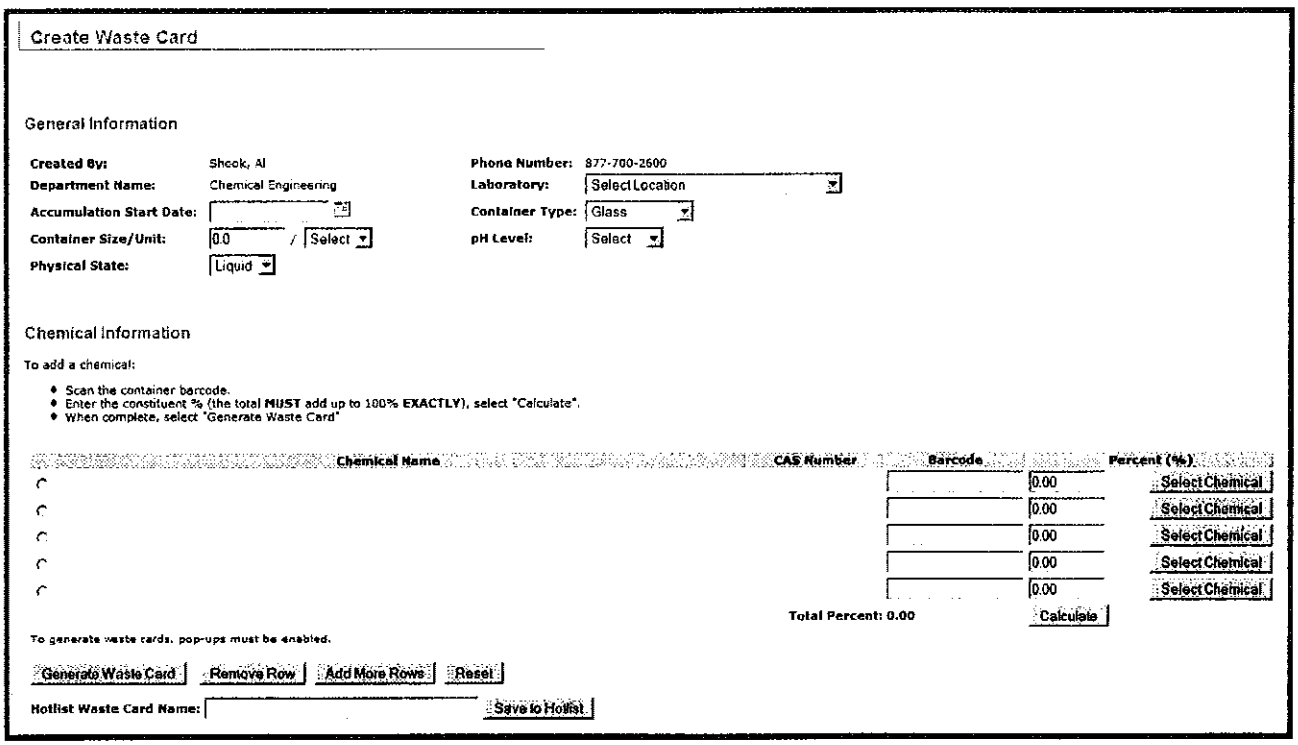



Click on the link Create Waste Card .

Click Chemical Mixture by Percentage .

Other types of waste cards can also be created, either for waste chemical mixtures by quantity, pure chemicals in individual containers or for more generic products such as recyclable materials, paint, oil, aerosols etc. The availability of these options can be added to, changed, or modified by a CHEMATIX™ System Administrator. If you have any questions about the types of creatable waste cards, contact your Environmental Health and Safety personnel.






Select the **Accumulation Start Date:**, **Laboratory:**, **Container Size/Unit:**, **Container Type:**, **Physical State:**, and the **PH Level:**.

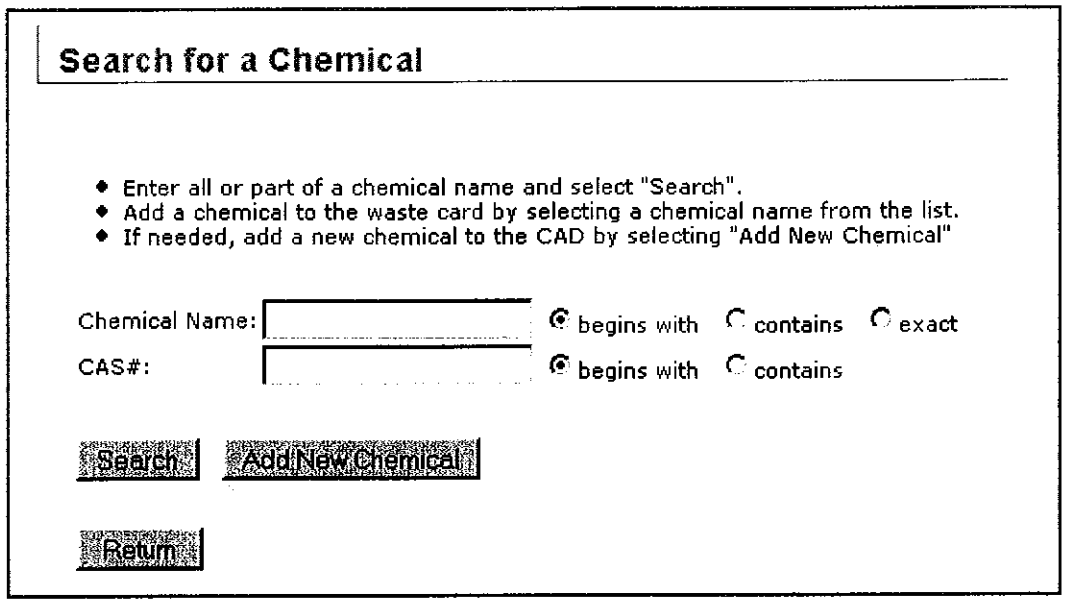
**There are two options for selecting chemicals**

**Option 1:** Enter the barcode of the chemical container.
For each chemical, scan or enter the container's barcode.

Enter the quantity/units of this chemical in the mixture.

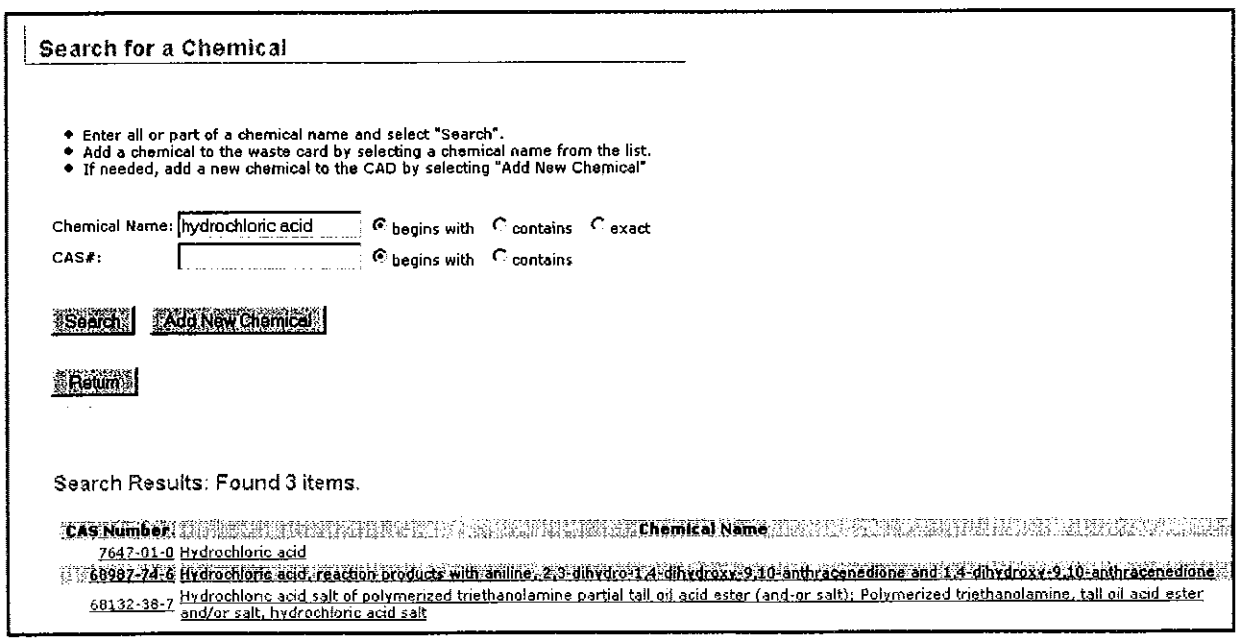
**Option 2:** Search for and select a chemical by clicking Select Chemical.

After clicking Select Chemical, you will now be transferred to page [WM453]:

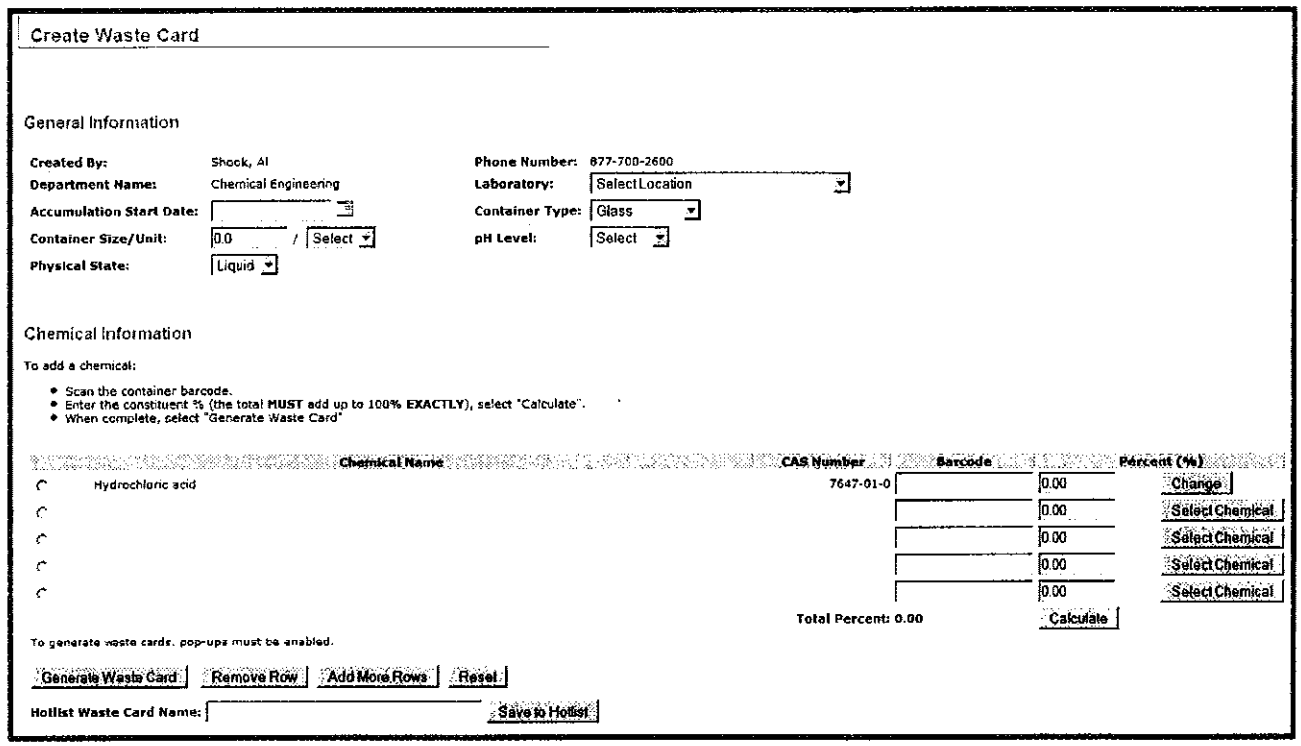



Enter the Chemical Name or the CAS# into the appropriate fields.

Click Search to search for your Chemical Name or CAS# in CAD.




Click the Chemical Name from the generated list (for example, Hydrochloric acid ) to




Enter the percentage of this chemical in the mixture. The total percentage of chemicals must add up to 100.

**After you have added all necessary chemicals to your waste card:**

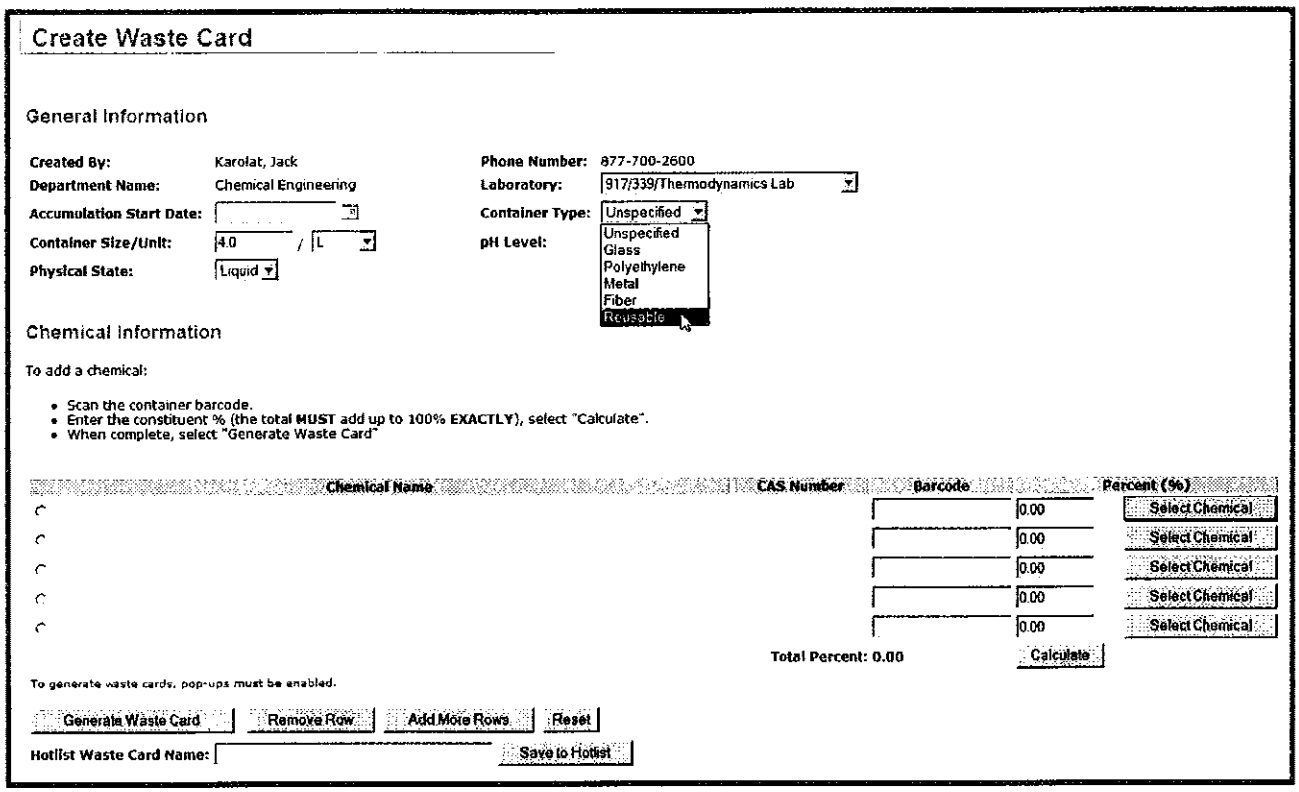
Click  to view and print your Waste Card in PDF format.



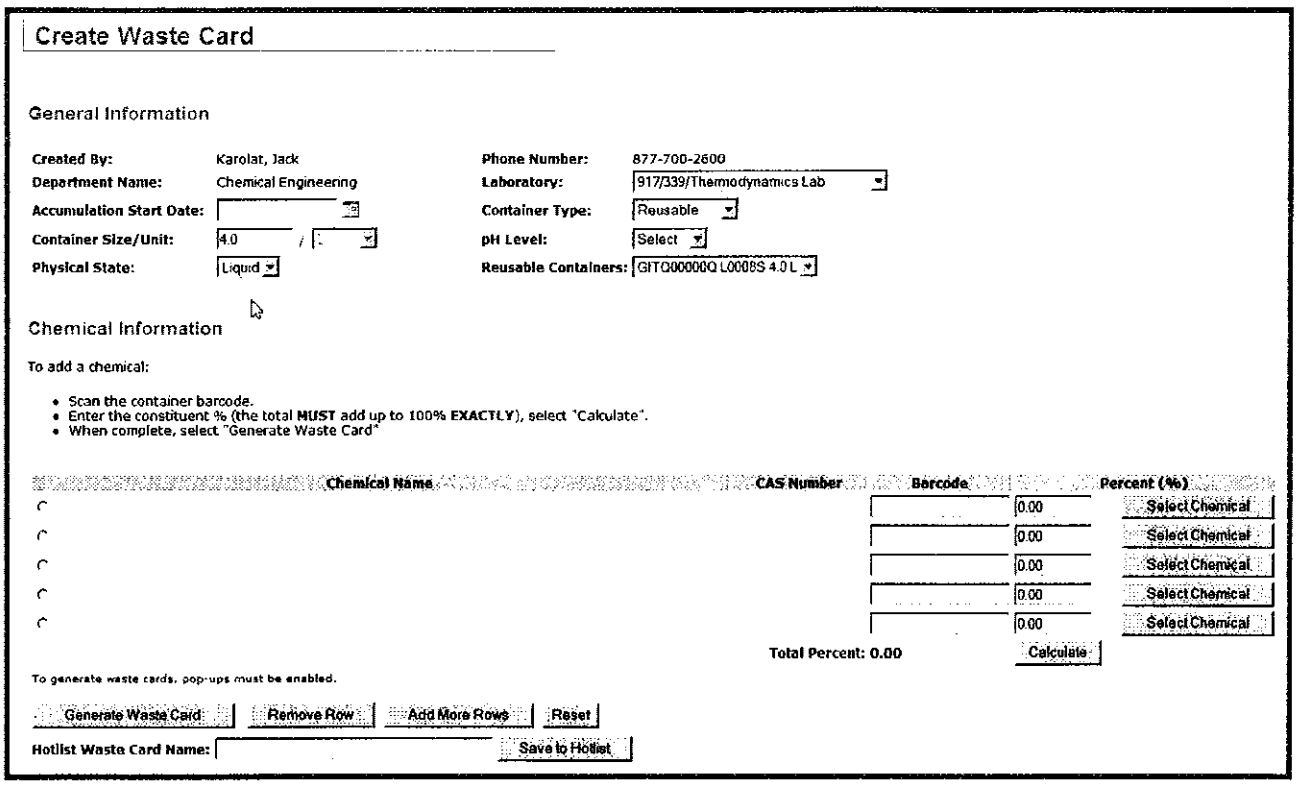
## *Using Reusable Waste Containers*

In order to use a reusable waste container, first select the Laboratory that it is located in from the Create Waste Card page.

The Reusable container type will appear in the drop down menu if there is a reusable container in that location.




Upon selecting the reusable container type, an additional drop down menu will appear, containing all reusable waste containers currently at that location.




Select the appropriate container from the reusable container pulldown menu and continue with creating your waste card.

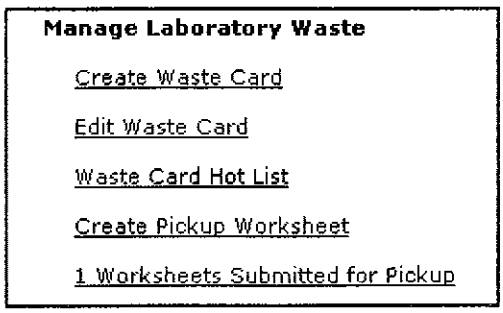
## Pure Chemicals in Individual Containers

Creating waste cards for pure chemicals in individual containers is usually done when users wish to have chemical containers picked up as surplus, or when a lab is being cleared out.

Click the Waste button at the top of the CHEMATIX™ screen:

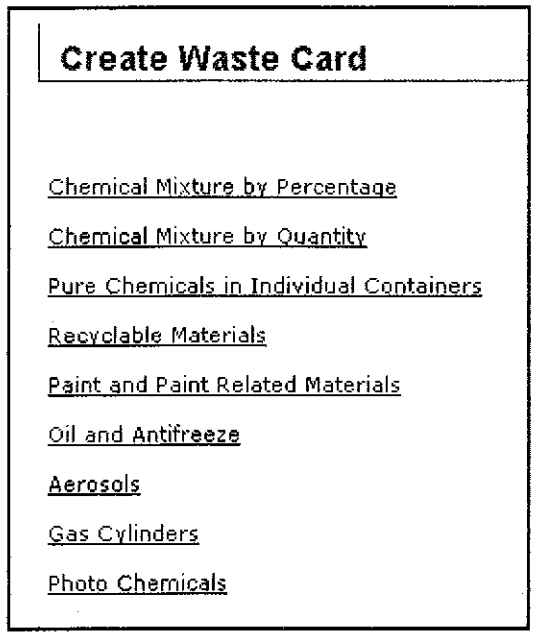

You will now see the opening page for **Waste Management** [WM402].

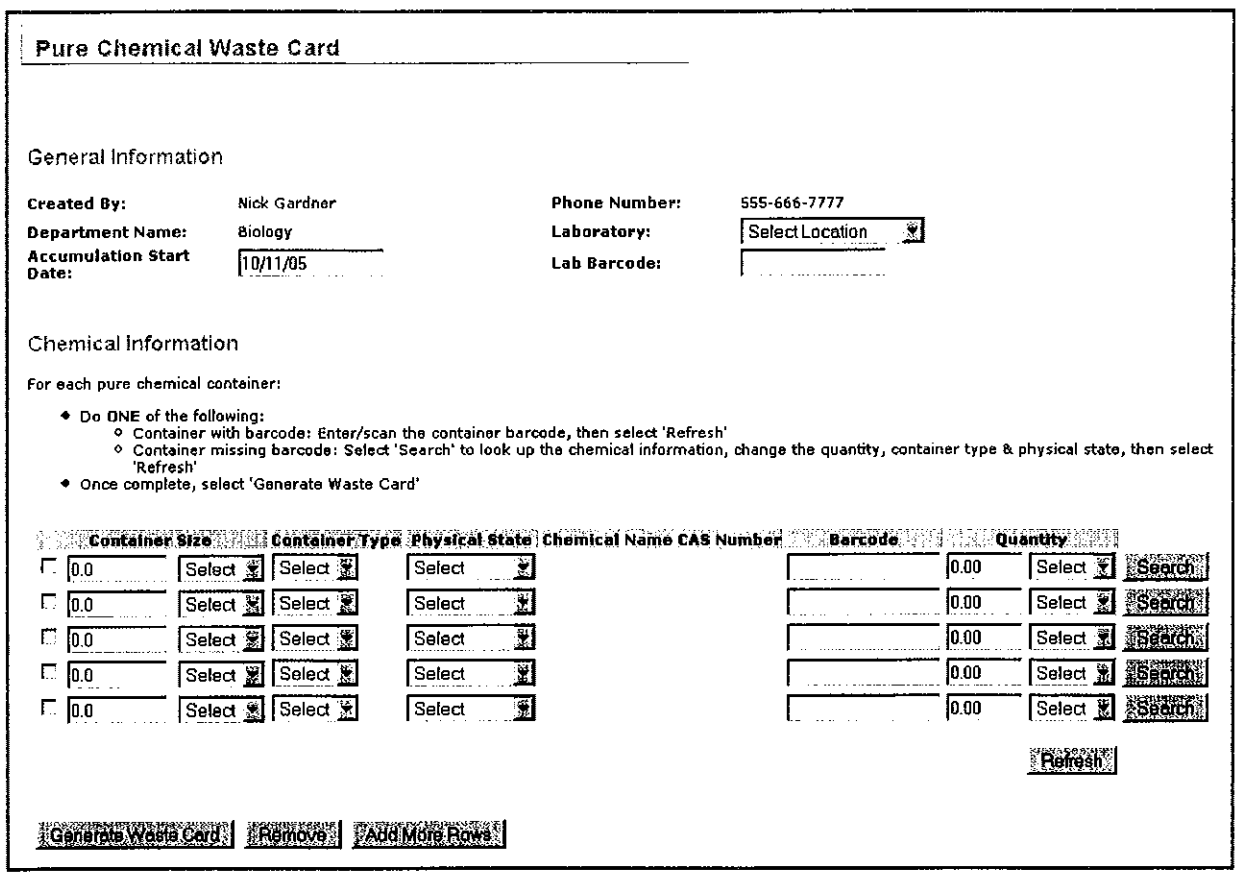
Scroll down to:




Click on the link Create Waste Card .

Click Pure Chemicals in Individual Containers .






Select the **Accumulation Start Date:**, **Laboratory:**, **Container Size/Unit:**, **Container Type:**, **Physical State:**, and the **PH Level:**.

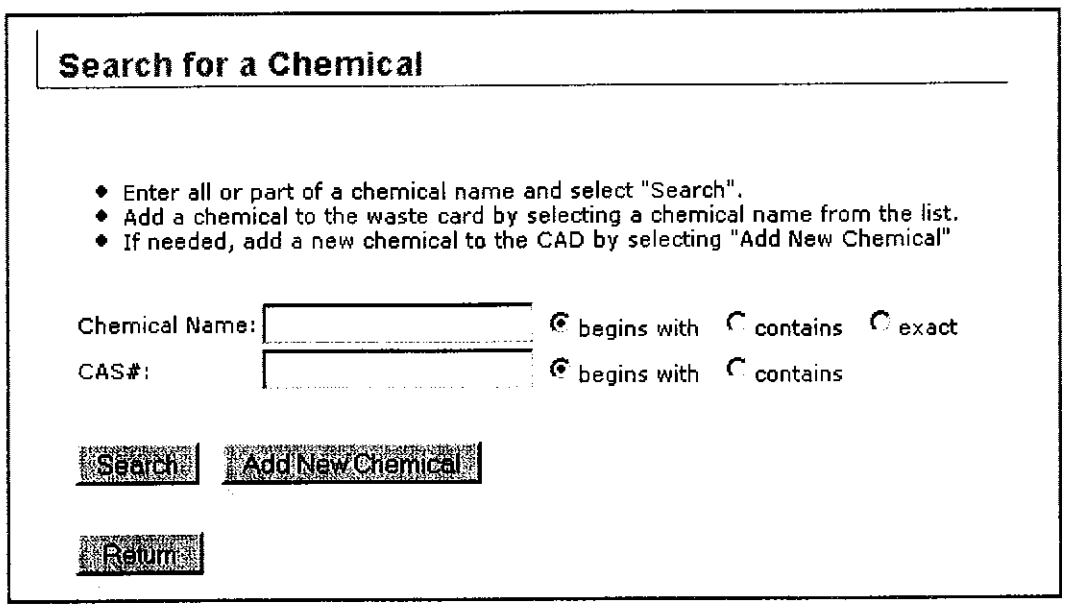
**There are two options for selecting chemicals**

**Option 1:** Enter the barcode of the chemical container.
For each chemical, scan or enter the container's barcode.

Enter the quantity/units of this chemical in the mixture.

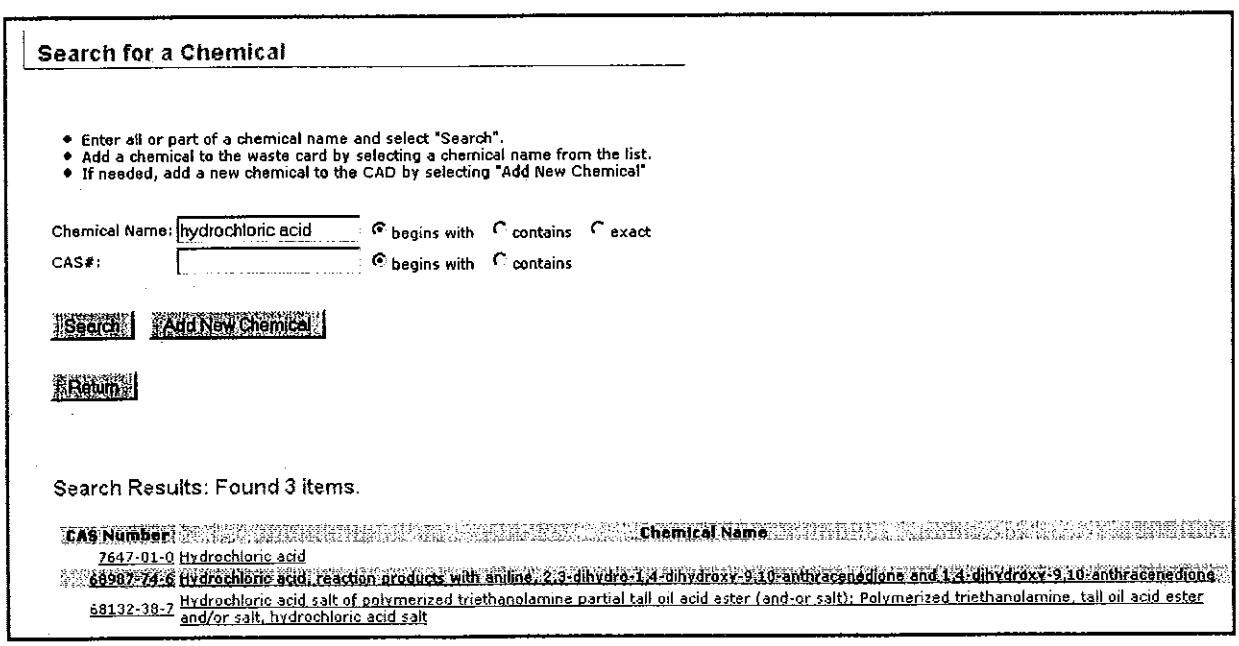
**Option 2:** Search for and select a chemical by clicking **SelectChemical**.

After clicking **SelectChemical**, you will now be transferred to page [WM453]:

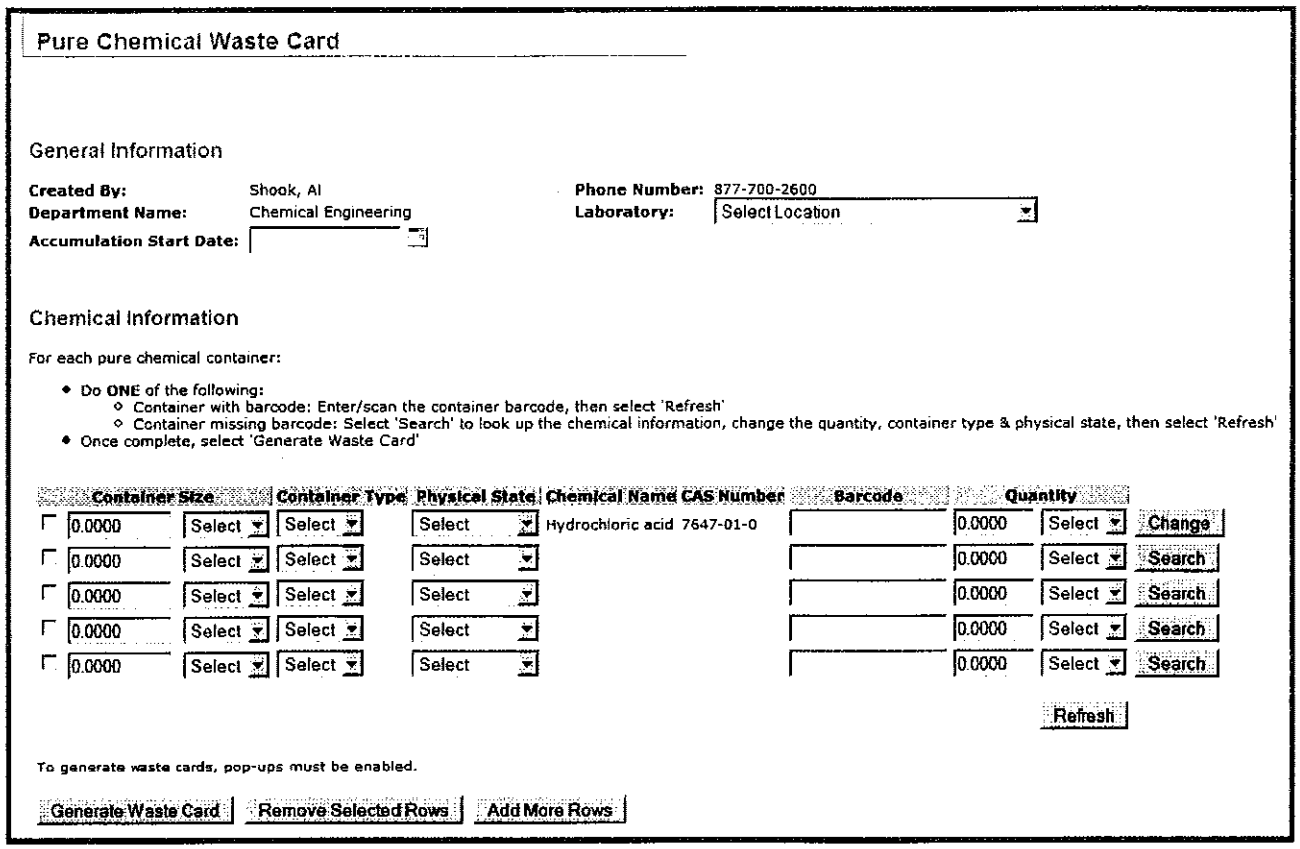



Enter the Chemical Name or the CAS# into the appropriate fields.

Click Search to search for your Chemical Name or CAS# in CAD.




Click the Chemical Name from the generated list (for example, Hydrochloric acid ) to




Enter the quantity/units of this chemical in the mixture.

**After you have added all necessary chemicals to your waste card:**

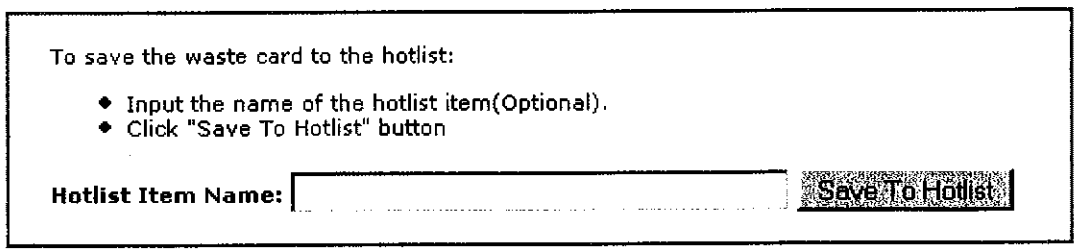
Click  to view and print your Waste Card in PDF format.



## Create a Waste Card Hotlist Item for Chemical Waste Mixtures

If a particular waste card with the same chemical contents is constantly being created, then it is useful to add this waste card to a hotlist in order to facilitate faster waste card creation.

After your Waste Card has been generated and printed, scroll down to the bottom of page [WM451].




Enter the name for this chemical mixture into the **Hotlist Item Name** field. This is the **Template Name** field.

Click 

.

## *Using the Hot List to Create Waste Cards*

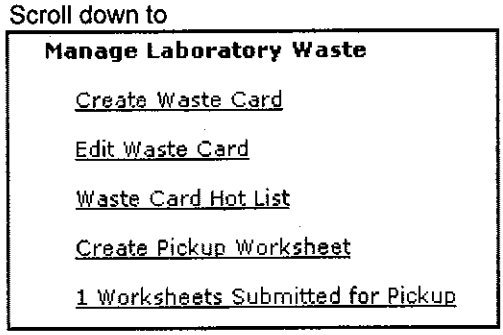
Click the 

button at the top of the CHEMATIX™ screen:


You will now see the opening page for 

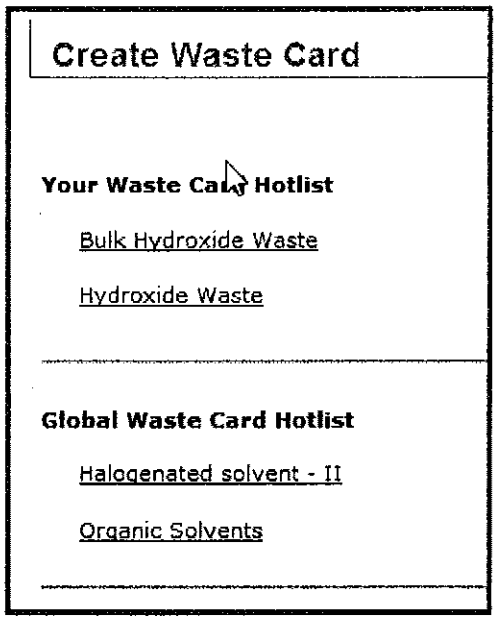
[WM402].

Scroll down to



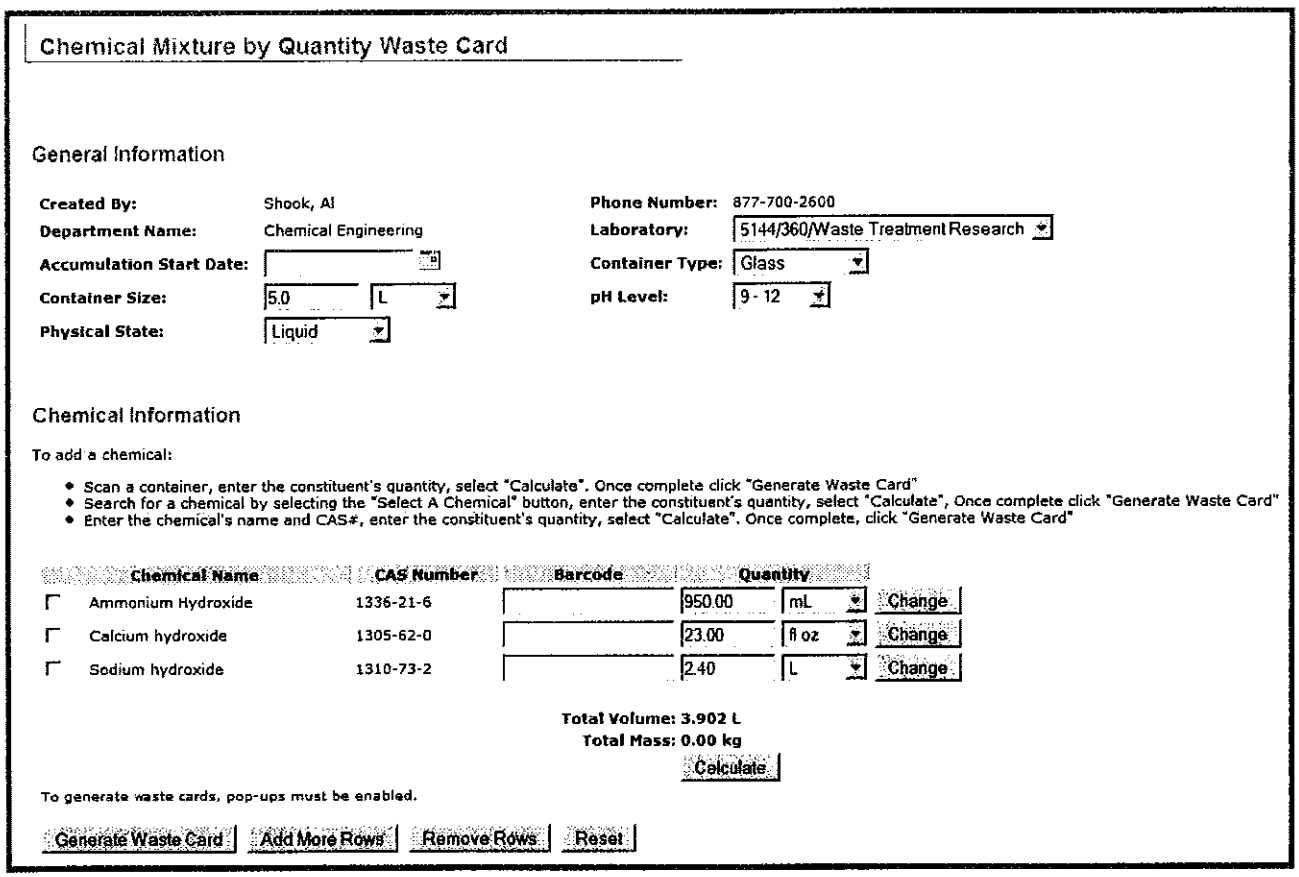

Click on the link Create Waste Card .

If any hotlisted waste card have been defined, they should appear along with the standard waste card creation options.




There are two hot lists that appear on the screen. Your Waste Card Hotlist refers to hot listed waste cards that you have defined. These waste cards are available for your use only and will not be visible to other CHEMATIX™ users. The Global Waste Card Hotlist refers to hot listed waste cards that have been defined by the institution and are available for use by all CHEMATIX™ users.

Click the hot listed waste card that you wish to use.



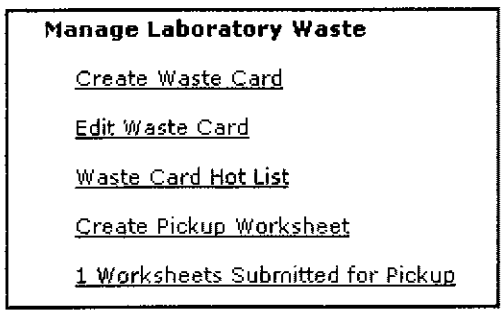

Information corresponding to the hot listed waste card will appear on the screen. This can be used as a template and you can update or change all of the inputted information on this page before generating your new waste card.

## *Edit Waste Card*

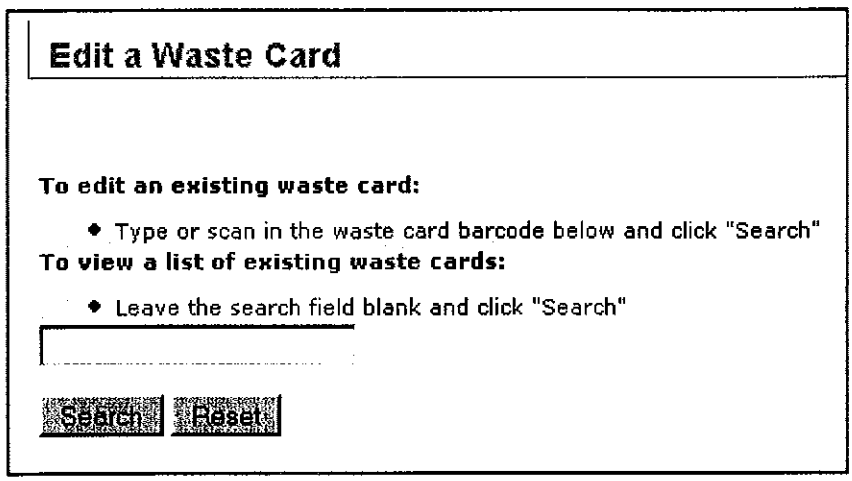
Click the Waste button at the top of the CHEMATIX™ screen:


You will now see the opening page for **Waste Management** [WM402].

Scroll down to




Click on the link Edit Waste Card .

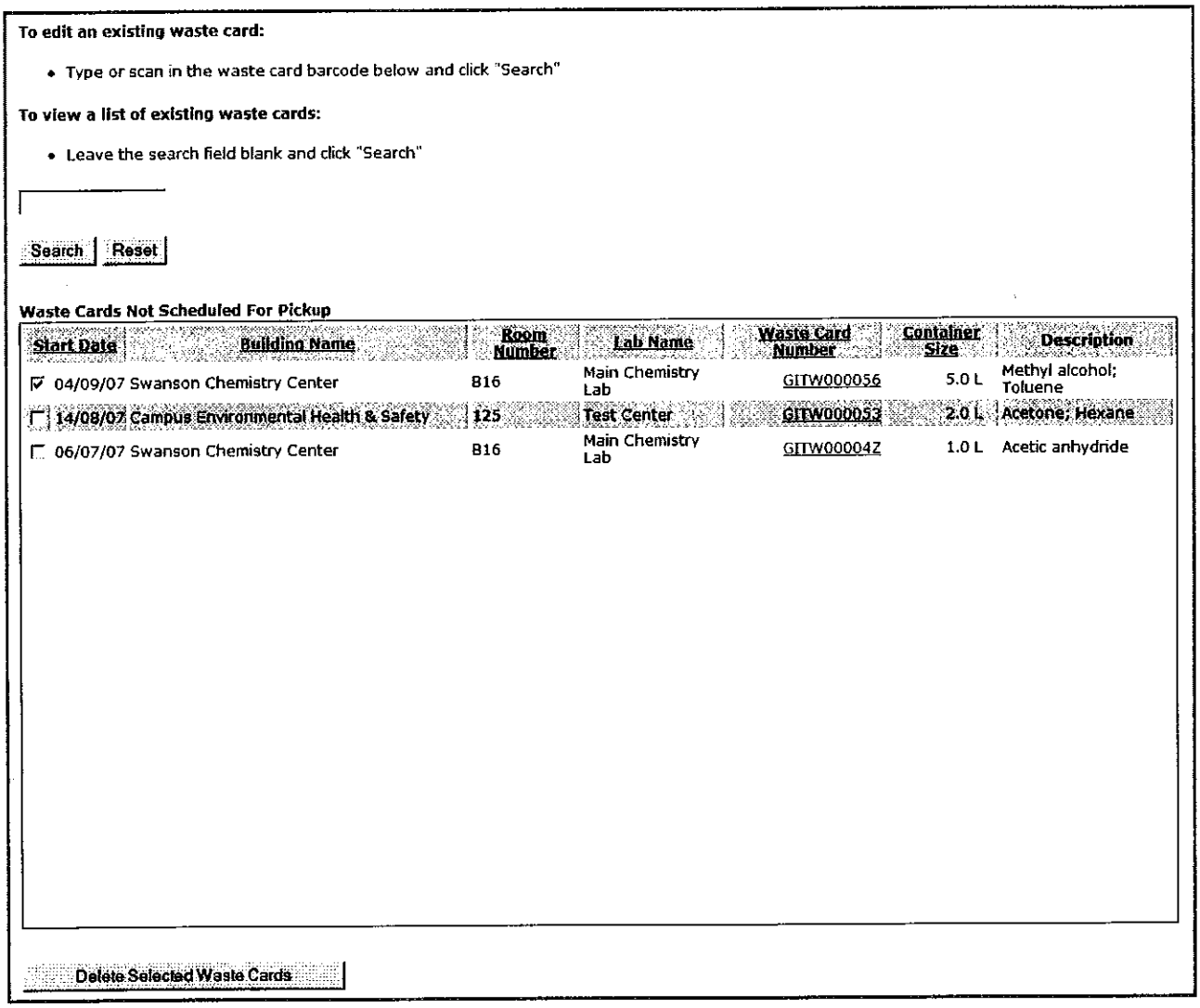



From this page, there are two choices to search an existing Waste Card:

Option 1: ***Enter a waste barcode into the data field and click*** Search.

Option 2: ***Leave the search field blank and click*** Search.

The list of Waste Cards in your lab(s) will be generated at the bottom of page [WM113]:



**To edit an existing waste card:**

- Type or scan in the waste card barcode below and click "Search"

**To view a list of existing waste cards:**

- Leave the search field blank and click "Search"

Search | Reset

**Waste Cards Not Scheduled For Pickup**

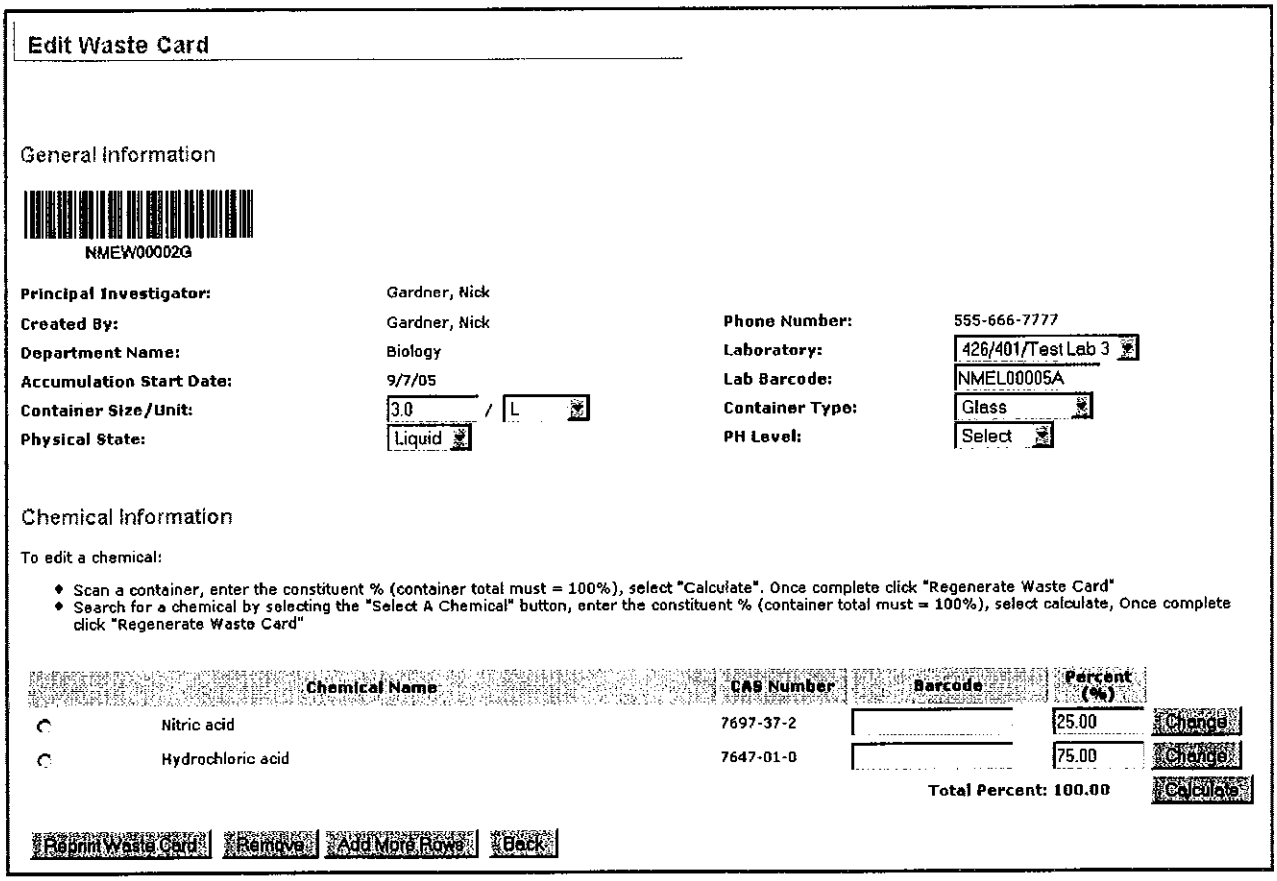
| Start Date | Building Name | Room Number | Lab Name | Waste Card Number | Container Size | Description |
|---|---|---|---|---|---|---|
| ☑ 04/09/07 | Swanson Chemistry Center | B16 | Main Chemistry Lab | GITW000056 | 5.0 L | Methyl alcohol; Toluene |
| ☐ 14/08/07 | Campus Environmental Health & Safety | 125 | Test Center | GITW000053 | 2.0 L | Acetone; Hexane |
| ☐ 06/07/07 | Swanson Chemistry Center | B16 | Main Chemistry Lab | GITW00004Z | 1.0 L | Acetic anhydride |

Delete Selected Waste Cards

Select a checkbox next to a waste card and click the **Delete Selected Waste Cards** button if you wish to delete a waste card.

Click on a waste card number if you wish to edit, view, and print that Waste Card.

You will now be transferred to [WM475]:




You can update or change all of the inputted information on this page.

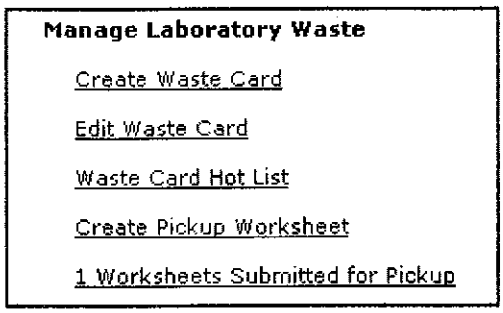
## *Create Pickup Worksheet*

Once you are ready to submit your waste container for pickup by EHS, you must create a pickup worksheet and attach your waste cards to the worksheet.

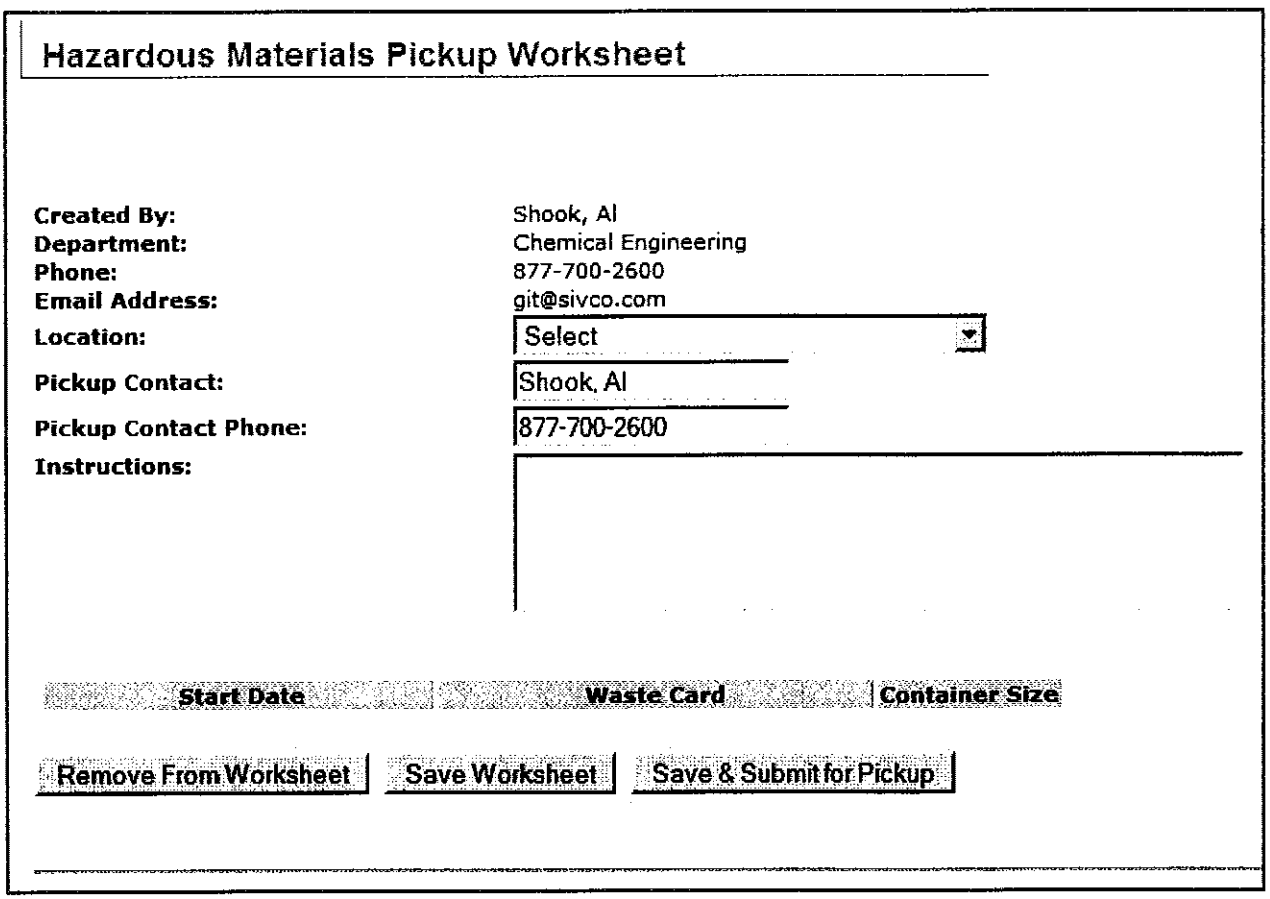
To access this functionality, click the Waste button at the top of the CHEMATIX™ screen:


You will now see the opening page for **Waste Management** [WM402].

Scroll down to




Click on the link Create Pickup Worksheet .




Select a laboratory location from the pulldown menu near the top of the page.

A generated list of Waste Cards in the laboratory location that you have selected will appear at the bottom of this page:

| Start Date | Location | Waste Card | Container Size | On Worksheet |
|---|---|---|---|---|
| ☐ 3/27/06 | 5144/360/Waste Treatment Research | GITW00001R | 1.5 L | #52 |
| ☐ 3/27/06 | 5144/360/Waste Treatment Research | GITW00001S | 5.0 L | #52 |
| ☐ 3/27/06 | 5144/360/Waste Treatment Research | GITW00001U | 5.0 L | #52 |

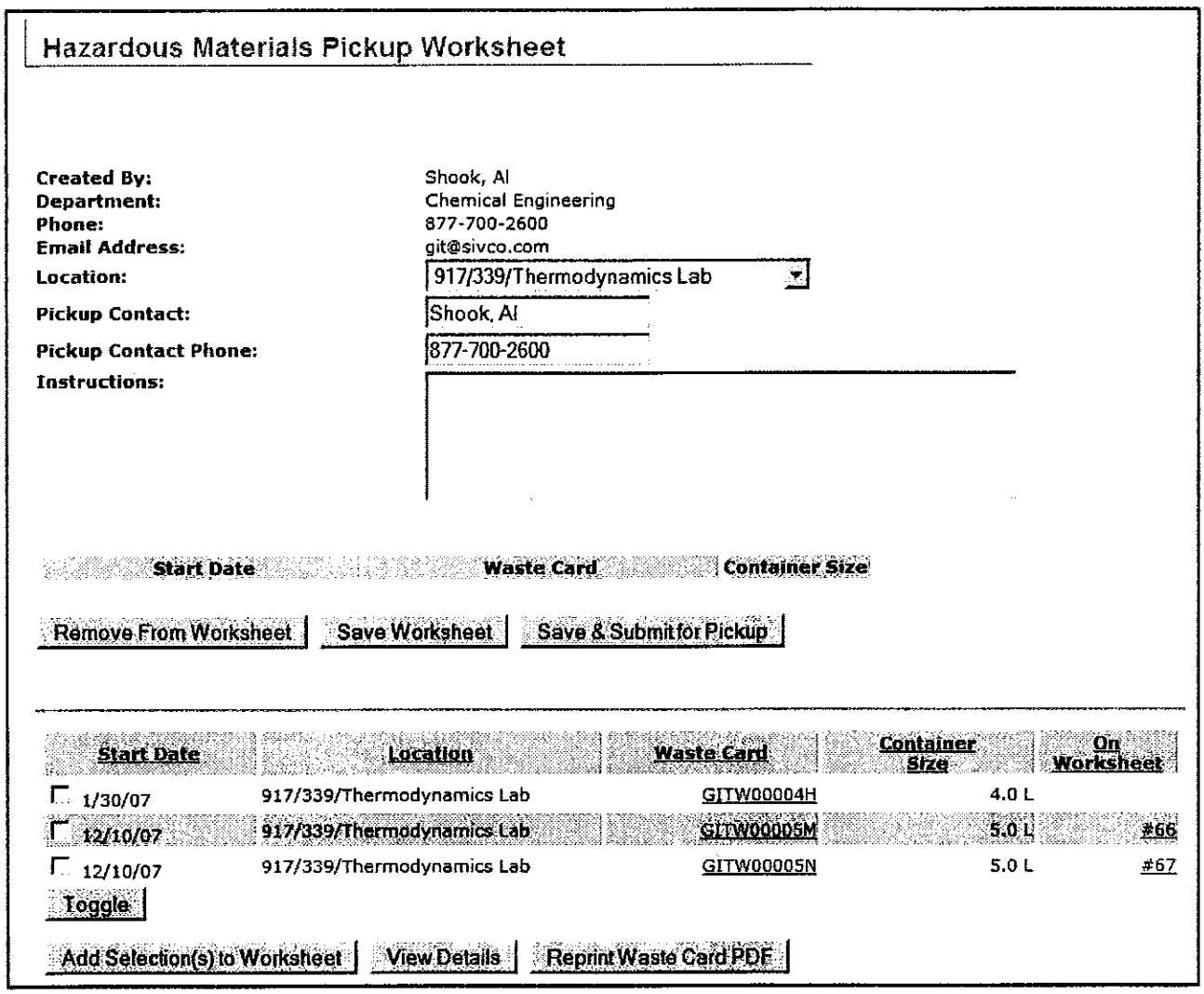
Scroll down to the bottom of the generated Waste Cards on page [WM200]:

| | | | | |
|---|---|---|---|---|
| ☐ 9/25/07 | 5144/360/Waste Treatment Research | GITW00005N | 50.0 mL | |
| ☐ 10/30/07 | 5144/360/Waste Treatment Research | GITW00005O | 9.0 L | |
| ☐ 10/30/07 | 5144/360/Waste Treatment Research | GITW00005P | 5.0 L | |

Toggle

Add Selection(s) to Worksheet | View Details | Reprint Waste Card PDF

Click on one or more check boxes ☑ to select Waste Cards. Click Add Selection(s) to Worksheet to add the selected Waste Cards to the Worksheet. The selected Waste Card(s) will be added to your Worksheet.




**After you have added all necessary waste cards to your pickup worksheet:**

Click Save & Submit for Pickup to submit the worksheet for pickup.

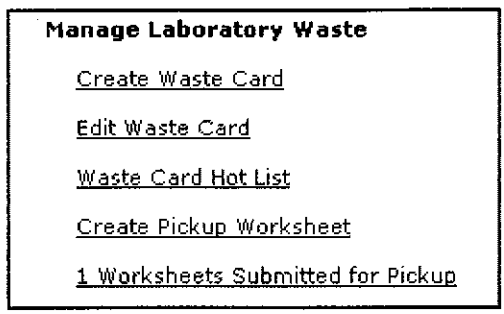
Note: Once you have submitted a waste card for pickup on a worksheet you will no longer be able to edit that worksheet.

## *View Submitted Worksheets*

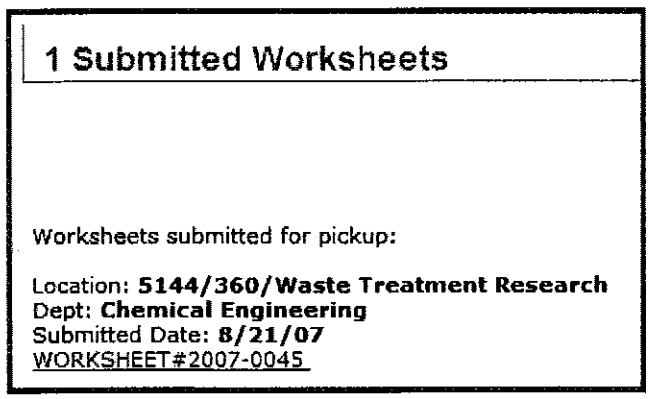
To view worksheets that you have submitted for pickup, click the Waste button at the top of the CHEMATIX™ screen:


You will now see the opening page for **Waste Management** [WM402].

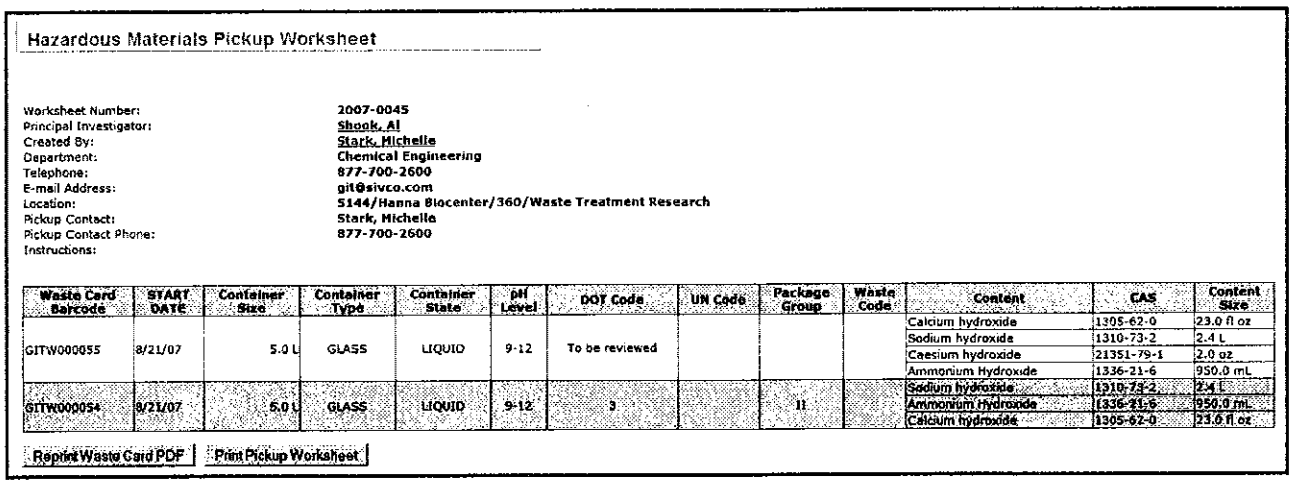
Scroll down to




Click on the 1 Worksheet Submitted for Pickup link.




Click on the worksheet # of the submitted worksheet that you wish to view.



Hazardous Materials Pickup Worksheet

Worksheet Number: 2007-0045
Principal Investigator: Shook, Al
Created By: Stark, Michelle
Department: Chemical Engineering
Telephone: 877-700-2600
E-mail Address: git@sivco.com
Location: 5144/Hanna Biocenter/360/Waste Treatment Research
Pickup Contact: Stark, Michelle
Pickup Contact Phone: 877-700-2600
Instructions:

| Waste Card Barcode | START DATE | Container Size | Container Type | Container State | pH Level | DOT Code | UN Code | Package Group | Waste Code | Content | CAS | Content Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GITW000055 | 8/21/07 | 5.0 L | GLASS | LIQUID | 9-12 | To be reviewed | | | | Calcium hydroxide | 1305-62-0 | 23.0 fl oz |
| | | | | | | | | | | Sodium hydroxide | 1310-73-2 | 2.4 L |
| | | | | | | | | | | Caesium hydroxide | 21351-79-1 | 2.0 oz |
| | | | | | | | | | | Ammonium Hydroxide | 1336-21-6 | 950.0 mL |
| GITW000054 | 8/21/07 | 5.0 L | GLASS | LIQUID | 9-12 | 9 | | II | | Sodium hydroxide | 1310-73-2 | 2.4 L |
| | | | | | | | | | | Ammonium Hydroxide | 1336-21-6 | 950.0 mL |
| | | | | | | | | | | Calcium hydroxide | 1305-62-0 | 23.0 fl oz |

Reprint Waste Card PDF | Print Pickup Worksheet

You will be able to view the details of the worksheet that you have selected.

## *RadWaste*

**Instructor provides description of:**

Create Radioactive Waste Card
Create Radioactive Material Pickup Worksheet
View Unsent Radioactive Waste Pickup Sheet
View Submitted Radioactive Waste Pickup Sheet

**Exercise**

*Create Radioactive Waste Card*

Click the RadWaste button at the top of the screen:


You will now see the opening page for **Radioactive Waste Management**

Scroll down to

**Manage Laboratory Waste**

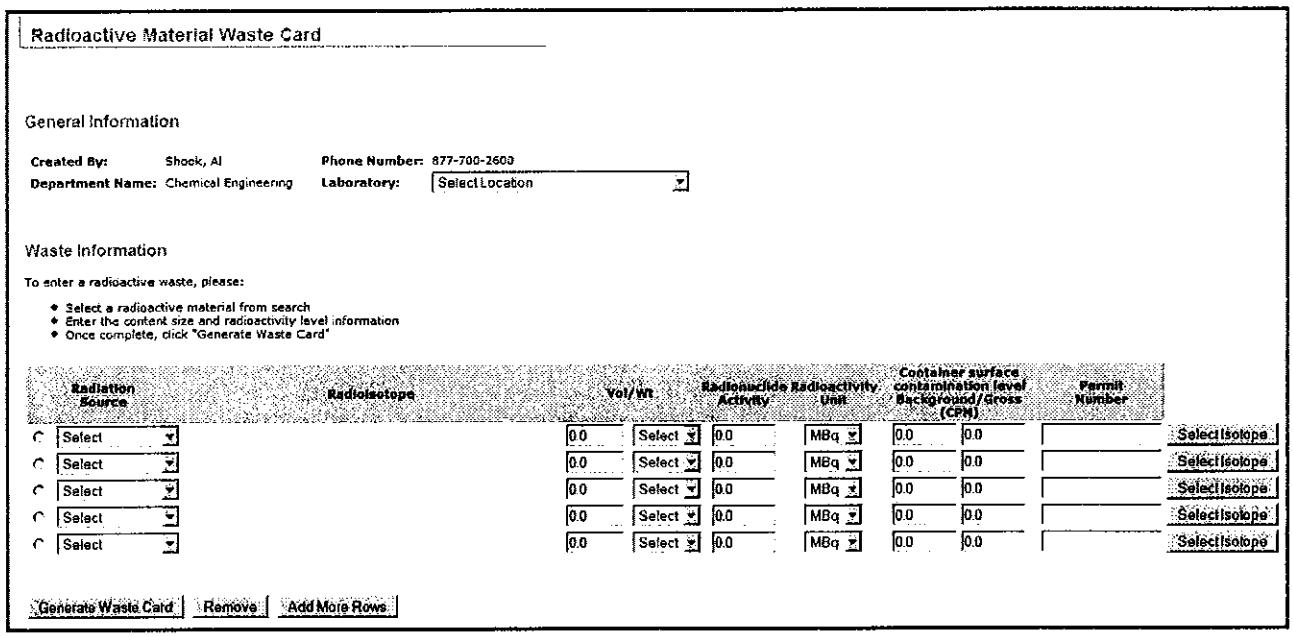
Create Radioactive Waste Card

Create Radioactive Material Pickup Worksheet

View Unsent Radioactive Waste Pickup Sheet

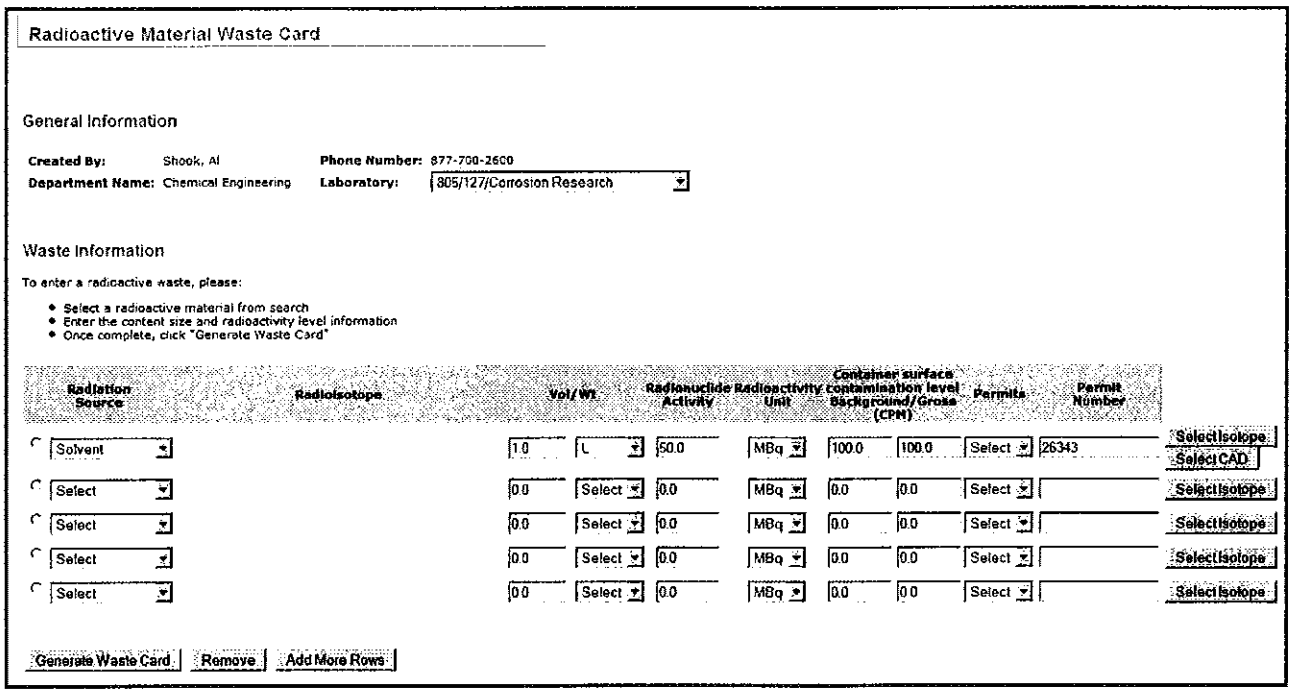
View Submitted Radioactive Waste Pickup Sheet

Click the Create Radioactive Waste Card link.



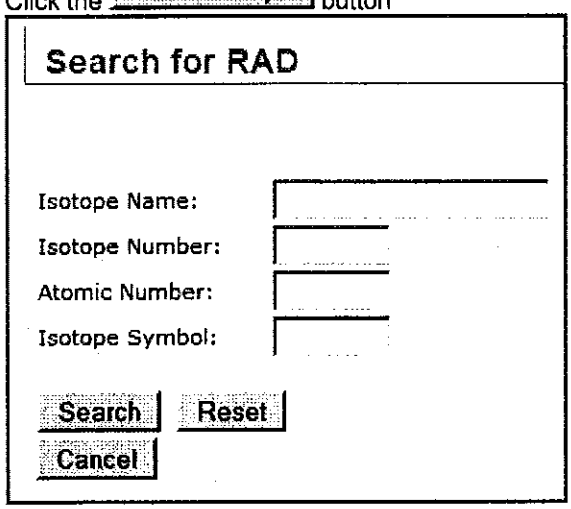

Select the **Laboratory:** that the radioactive waste is coming from.

Fill in the appropriate **Radiation Source**, **Vol/Wt**, **Radionuclide Activity**, **Radioactivity Unit**, **Container surface contamination level Background/Gross (CPM)** and **Permit Number** to describe the radioactive waste being created.

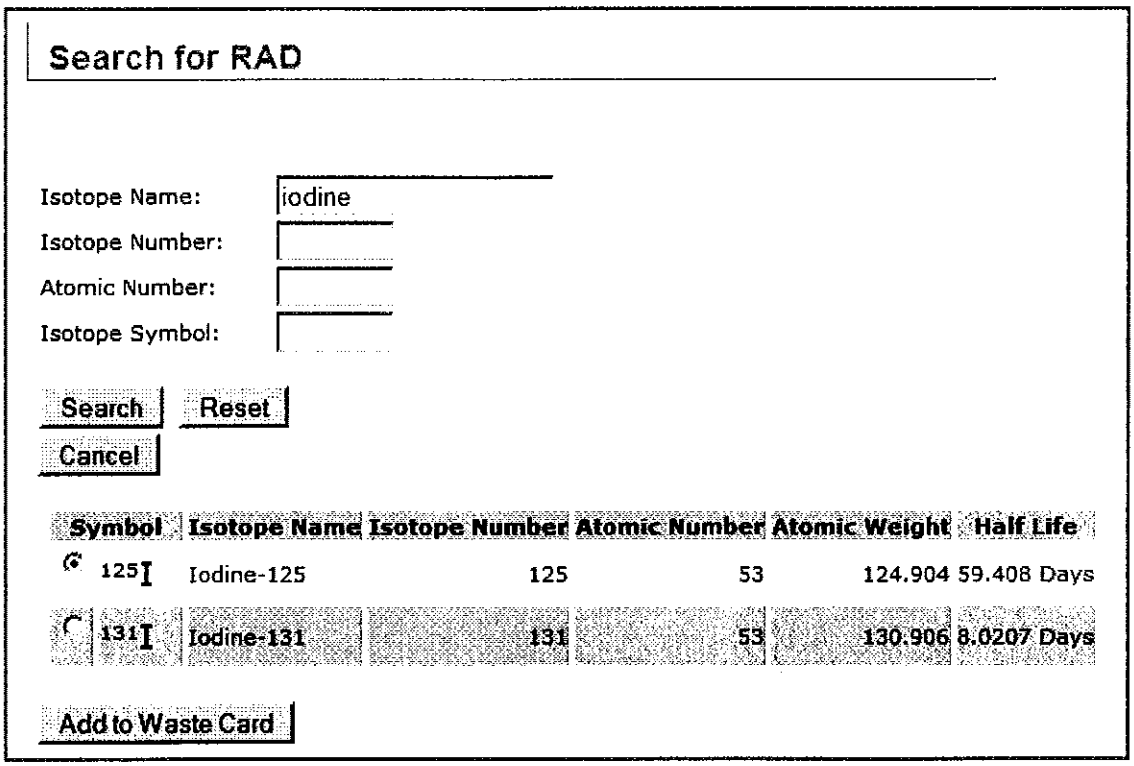



Since the Radiation Source selected is Solvent, you will have to Select Isotope for the radioisotope and Select CAD for the solvent that contains the radioisotope.

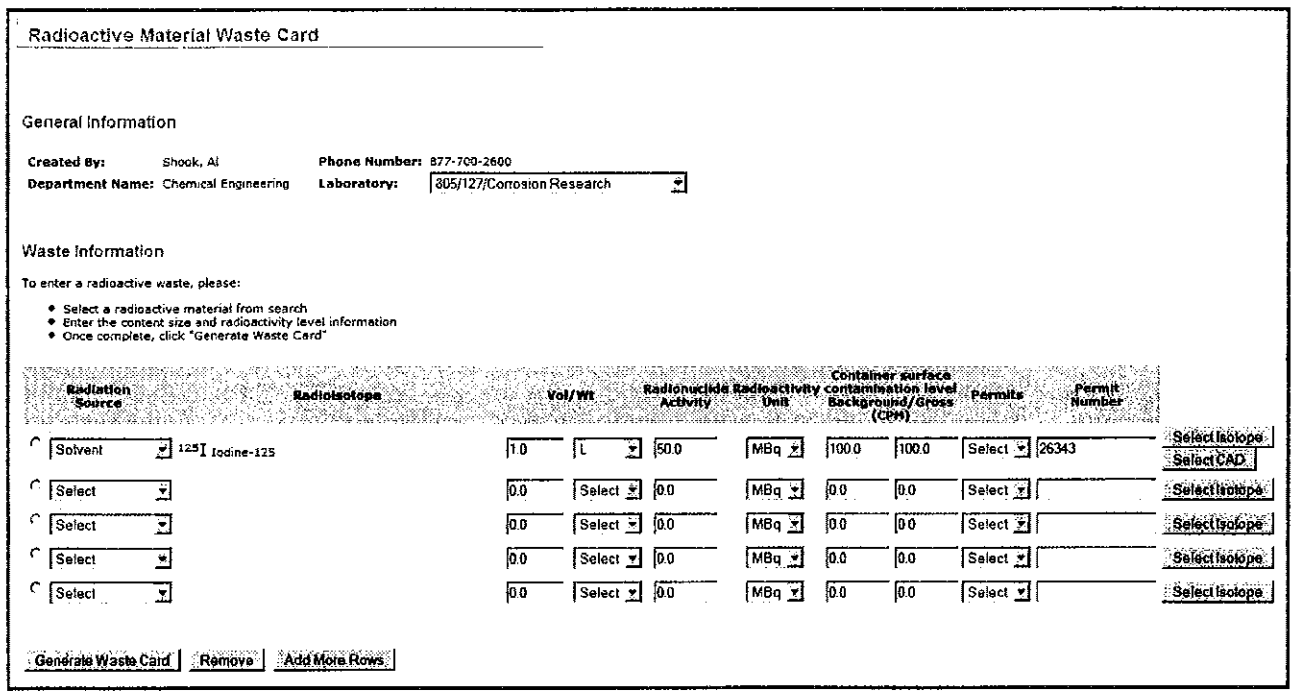
Click the Select Isotope button



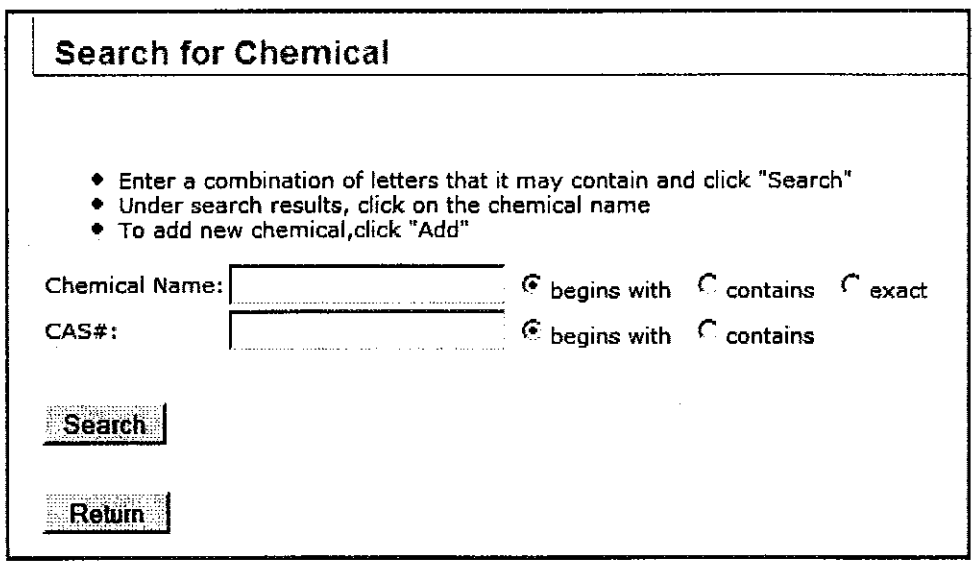

Fill in one of the search fields to find the appropriate isotope and click the Search button.



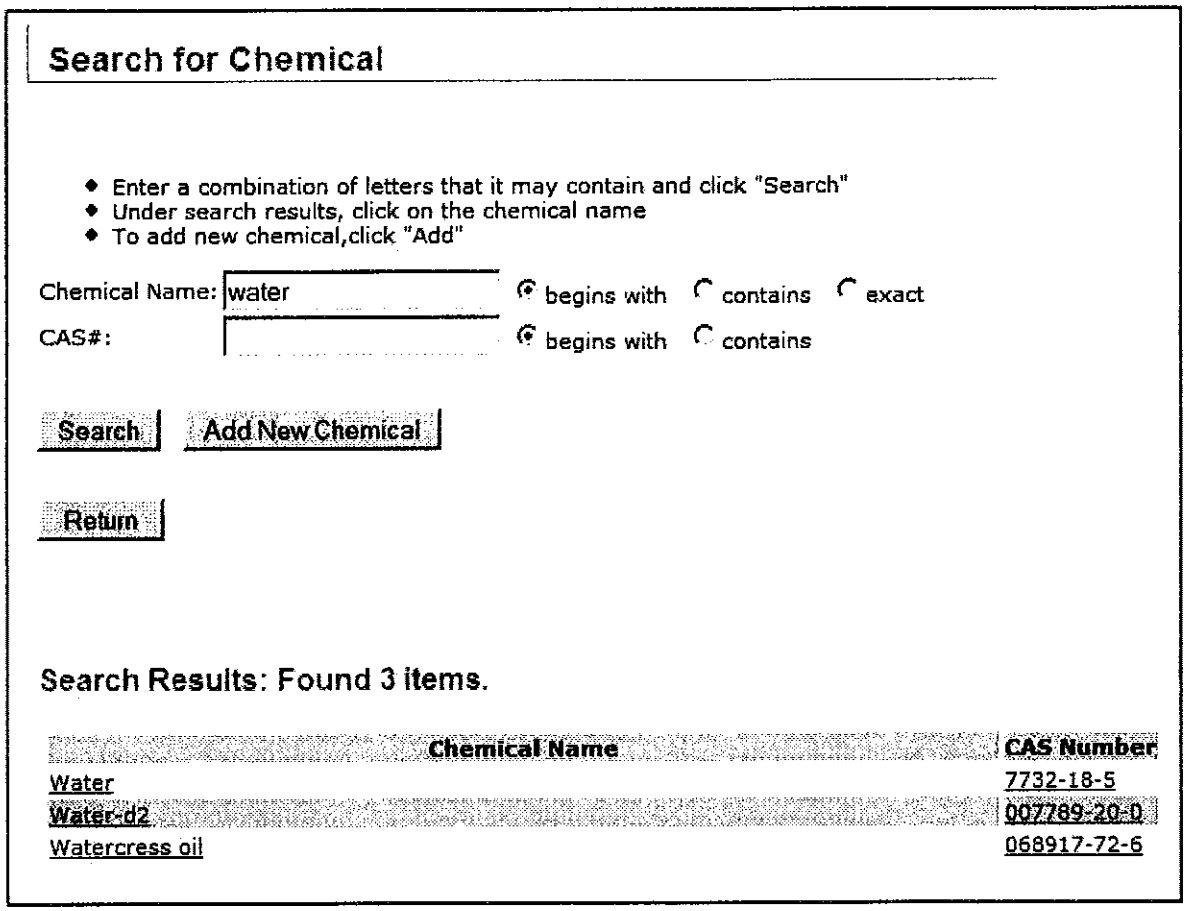

Select the radio button ◉ beside the appropriate isotope and click the Add to Waste Card button.



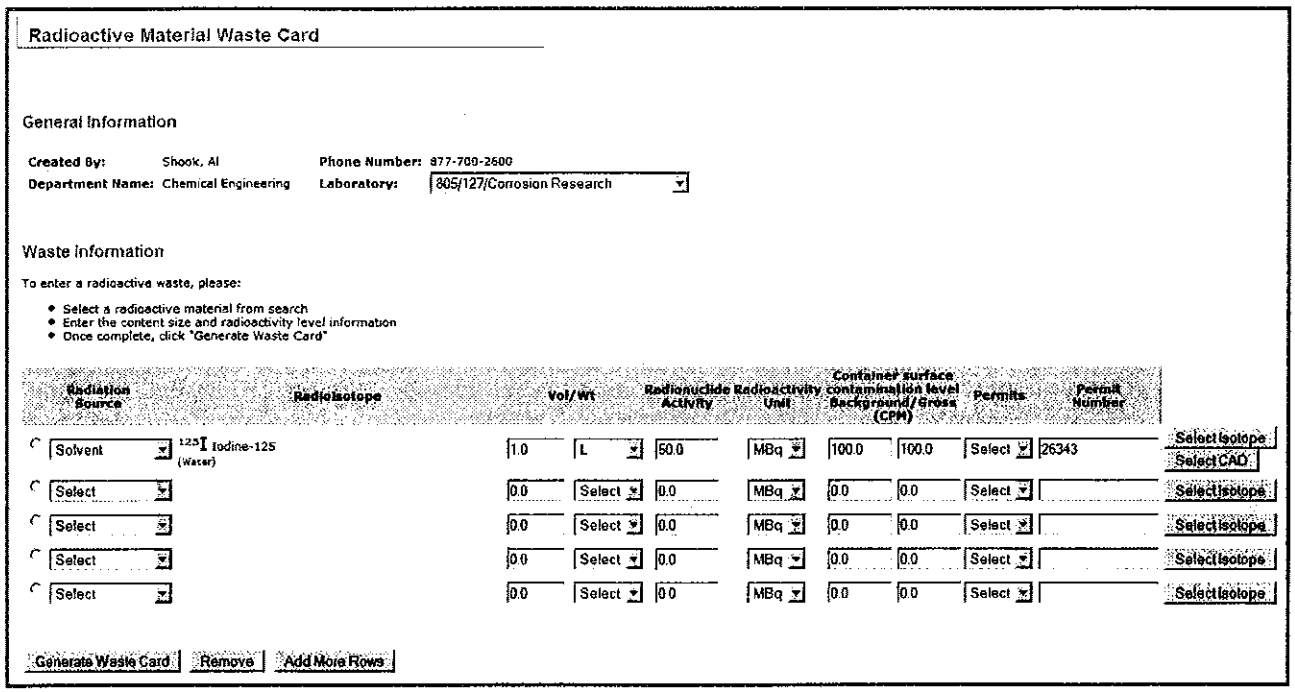

Click the **Select CAD** button.




Fill in one of the search fields to find the appropriate solvent and click the **Search** button.




Click on the name of the appropriate solvent.




Click the **Generate Waste Card** button.