

# Carbon Calculator User Manual

## STiCH

# Example Query

A conservator considers five different adhesives at 2% w/w to consolidate flaking paint.

Since all consolidants have similar application results, she would like to choose the system with the lowest carbon footprint.

# Step 1: Assembly Inventory

## Group 1: Glues

Sturgeon Glue

Funori

Tri-funori

Gelatin

Paraloid B-72

## Group 2: Solvents

Water

Acetone

# Step 2: Inventory List

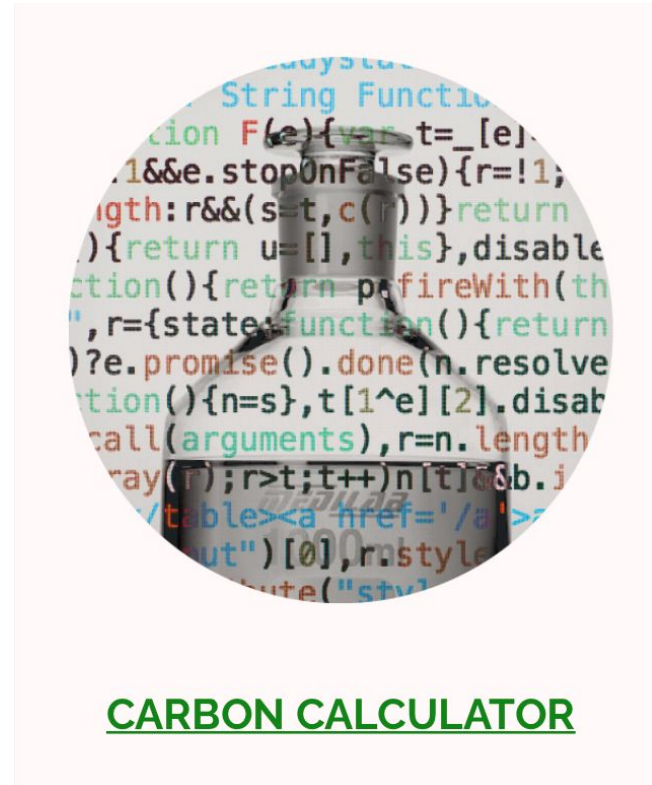
A simple table is useful to organize your items and groups

Group 1: Glues	Amount	kg CO <sub>2</sub> eq
Funori	2 grams	
Tri-Funori	2 grams	
Sturgeon	2 grams	
Gelatin	2 grams	
B72	2 grams	
<b>Total kg CO<sub>2</sub> eq</b>		

Group 2: Solvents	Amount	kg CO <sub>2</sub> eq
Water	100ml	
Acetone	100ml	
<b>Total kg CO<sub>2</sub> eq</b>		

# Step 3: Access Carbon Calculator from STiCH

<https://stich.culturalheritage.org>



# Step 4: Calculate kg CO<sub>2</sub> eq of each item

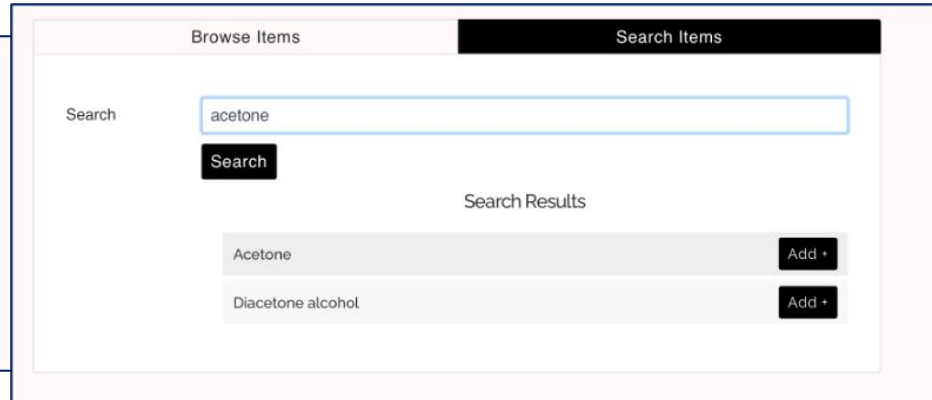
Browse Item by Category

**or**

Search by Individual Item



The screenshot shows the 'Browse Items' tab of a web application. It features three dropdown menus for selection: 'Category' with the placeholder 'Select a Category', 'Sub-Category' with 'Select a Sub-Category', and 'Item' with 'Select an Item'. Below these menus is an 'Add +' button. The 'Search Items' tab is visible but inactive.



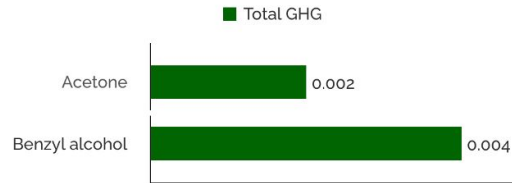
The screenshot shows the 'Search Items' tab of the web application. A search input field contains the text 'acetone', and a 'Search' button is positioned below it. Under the heading 'Search Results', two items are listed: 'Acetone' and 'Diacetone alcohol'. Each item has an 'Add +' button to its right.

# Step 5: Assign Quantity to Each Item



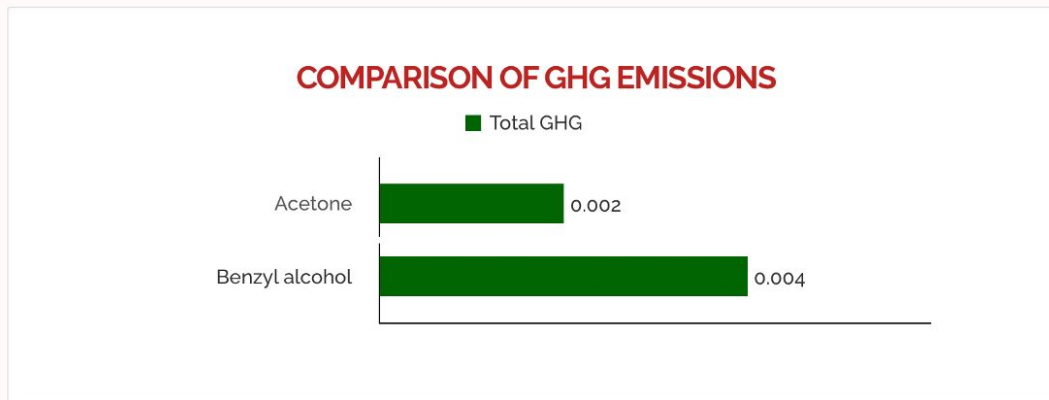
CATEGORY	SUB-CATEGORY	ITEM	QUANTITY	GHG/UNIT	TOTAL GHG	SAFETY DATA SHEET
Chemicals/Solvents	Organic	Acetone	<input type="text" value="1"/> ml	0.0017	0.002	Safety Data Sheet <input type="button" value="x"/>
Chemicals/Solvents	Organic	Benzyl alcohol	<input type="text" value="1"/> ml	0.0036	0.004	Safety Data Sheet <input type="button" value="x"/>
<b>TOTAL CARBON FOOTPRINT (kg CO<sub>2</sub> eq)</b>					<b>0.006</b>	

## COMPARISON OF GHG EMISSIONS



# Step 6: Record Total GHG

CATEGORY	SUB-CATEGORY	ITEM	QUANTITY	GHG/UNIT	TOTAL GHG	SAFETY DATA SHEET
Chemicals/Solvents	Organic	Acetone	<input type="text" value="1"/> ml	0.0017	0.002	Safety Data Sheet <input type="checkbox"/>
Chemicals/Solvents	Organic	Benzyl alcohol	<input type="text" value="1"/> ml	0.0036	0.004	Safety Data Sheet <input type="checkbox"/>
<b>TOTAL CARBON FOOTPRINT (kg CO<sub>2</sub> eq)</b>					<b>0.006</b>	





# Build Your Own Scenario

Comparing one item or group of items to another is a good way to start

- You can compare as many items or groups of items as you like
- Remember to keep similar items together for meaningful comparisons
- Be mindful of using consistent units and quantities

# Create Your Inventory List

Group 1:	Amount	kg CO <sub>2</sub> eq
<b>Total kg CO<sub>2</sub> eq</b>		

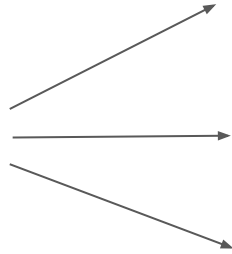
Group 2:	Amount	kg CO <sub>2</sub> eq
<b>Total kg CO<sub>2</sub> eq</b>		

# Calculate the GHG Emissions

Follow steps 3-6  
(above)

# Choose the Scenario

**Add the total kg CO<sub>2</sub> eq  
of items in each group**



Determine the total carbon footprint of each scenario

Design your treatment knowing the carbon footprint

**MAKE INFORMED CHOICES!**

# Funder and Participating Institutions

## Funder:



NATIONAL  
ENDOWMENT  
FOR THE  
HUMANITIES

## Participating Institutions:



foundation  
for advancement  
in conservation  
**Protecting Cultural  
Heritage**



**Pratt**



**Northeastern  
University**