my green lab.

sustainable procurement in laboratories: it's time to ACT.

Sustainability Made Simple

Annie Bevan, Sustainability Made Simple

Who is Sustainability Made Simple?

➜Our name summarizes our mission
➜Over 10 years of experience working with organizations to develop processes, procedures, and standards to analyze and certify various sustainability claims in products, buildings, and within manufacturing operations.

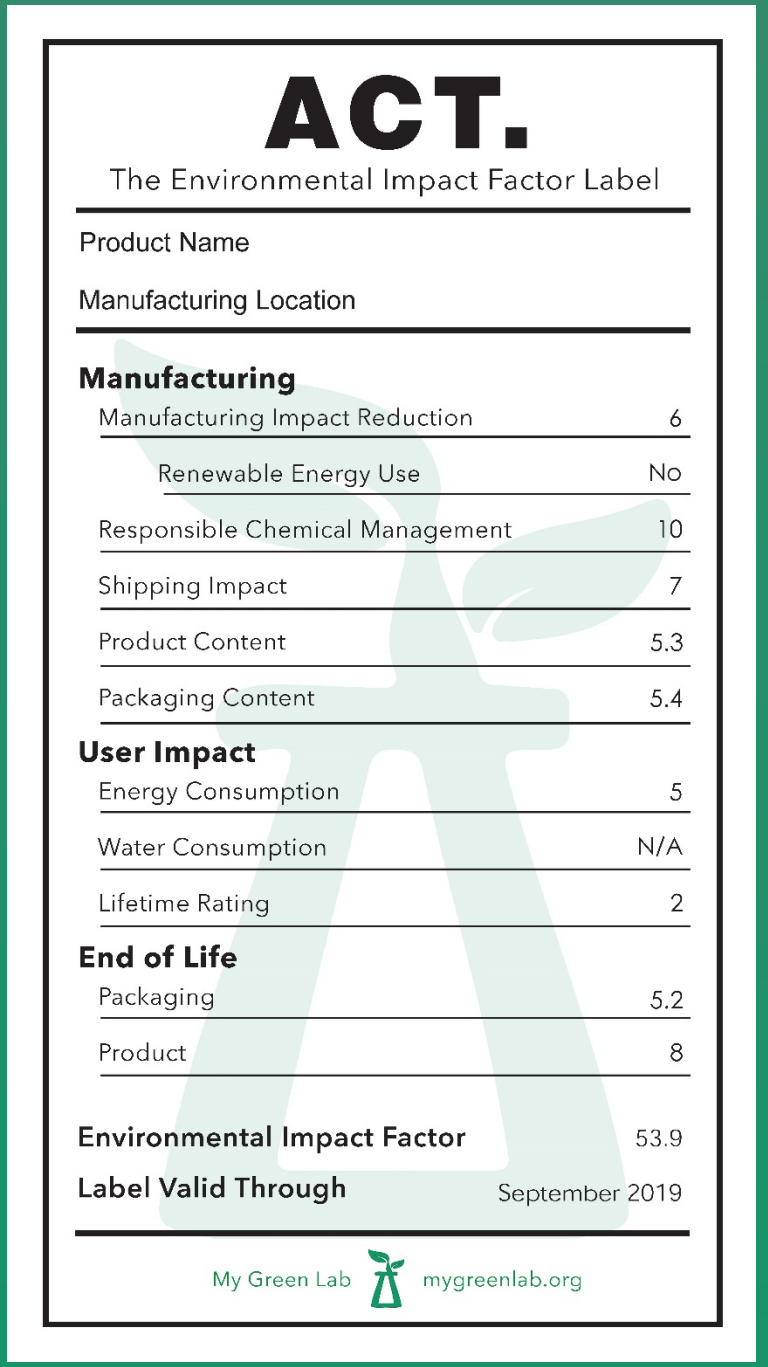
Sustainability Made Simple

a nutrition label for laboratory products

addresses a need of scientists, procurement specialists,
and manufacturers for increased transparency
and reduced environmental impact of laboratory products

ACT.

The Environmental Impact Factor Label



Accountability.

Consistency.

Transparency.

ACT.

The Environmental Impact Factor Label

Product Name

Manufacturing Location

Manufacturing

Manufacturing Impact Reduction	6
Renewable Energy Use	No
Responsible Chemical Management	10
Shipping Impact	7
Product Content	5.3
Packaging Content	5.4

User Impact

Energy Consumption	5
Water Consumption	N/A
Lifetime Rating	2

End of Life

Packaging	5.2
Product	8

Environmental Impact Factor 53.9

Label Valid Through September 2019

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The EIF Rating System

***Except for Energy and Water Consumption, these are 1 point per kWh or gallon respectively**

The Process

manufacturer provides documentation

audited by Sustainability Made Simple

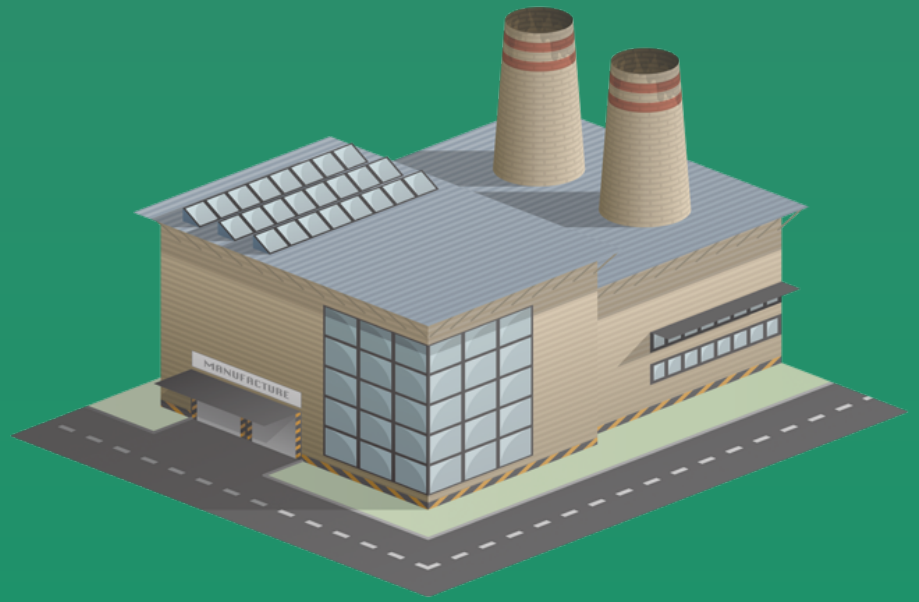
verified by My Green Lab

label issued

Manufacturing Impact Reductions

- Has the manufacturing facility implemented any new practices, technology, or initiatives within the process which resulted in the reduction of energy and/or water waste in the production of the product over the past five years?

- Does the facility manufacturing the product utilize renewable energy (e.g. solar, wind) to produce the product?



Responsible Chemical Management

- Does the manufacturer have process in place to safely manage hazardous chemicals within their products, process and supply chain?
- Does the product contain any bad actor chemicals like CMRs, PBTs or ’Red List’ chemicals?

Shipping Impact

- Where was the product produced?
- How much impact occurred due to shipping a product overseas to the US?
- Was the product made in the US?

Product Content

- Does the product contain any sustainable content? i.e. recycled content; bio-based content

Packaging Content

- Does the packaging material contain any sustainable content? i.e. recycled content; bio-based content; FSC certified materials

Energy Consumption

- How much energy does the product use over a 24 hour period?
- 1 point per kWh

water consumption

- How much water does the product use over a 24 hour period?
- 1 point per gallon

Lifetime Rating

- What is the expected useful life of this product?
- Is the product designed to be durable?
- Is the product used once and then disposed of?

Product End-of-Life

- How is the product able to be disposed of at the end of life?
- Does the manufacturer offer a take back program?
- Is the product easily recycled, or does it need to be disassembled?

Packaging End-of-Life

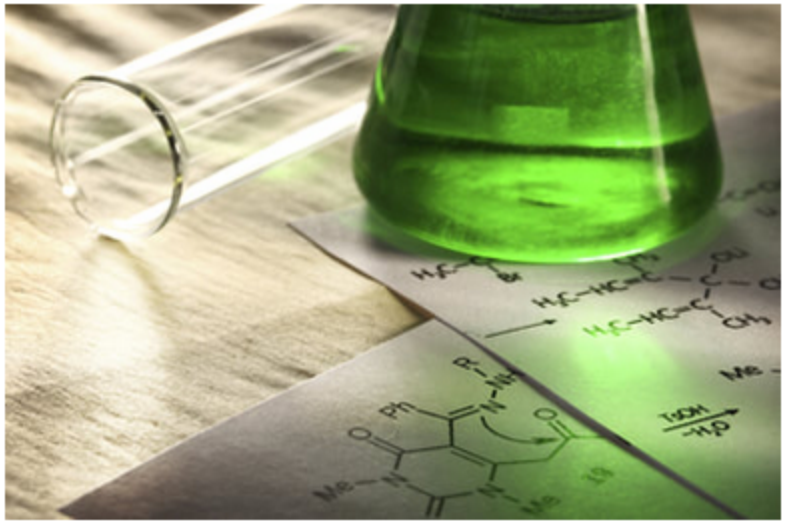
- How does the packaging material generally be disposed of at the end of life?
- Is the packaging material recyclable?
- Is there education from the manufacturer on how to properly dispose of this material?

ACT

in practice

CONSUMABLES

CHEMICALS & REAGENTS



EQUIPMENT

Pilot Program Participants

- **Eppendorf**
- **MilliporeSigma**
- **Priorclave NA**
- **Thermo Scientific**

Thermo Scientific Nalgene Rapid Filter Units

ACT.

The Environmental Impact Factor Label

Thermo Scientific Nalgene PES Filter Unit, 1000mL

Monterrey, Mexico

Manufacturing

Manufacturing Impact Reduction	10
Renewable Energy Use	No
Responsible Chemical Management	1
Shipping Impact	7
Product Content	10
Packaging Content	1

User Impact

Energy Consumption	0*
Water Consumption	N/A
Lifetime Rating	10

End of Life

Packaging	5.1
Product	10

Environmental Impact Factor 54.1

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MilliporeSigma beta-Amylase

ACT.

The Environmental Impact Factor Label

MilliporeSigma beta-Amylase (A7005) 10KU

St. Louis, Missouri, United States

Manufacturing

Manufacturing Impact Reduction	3
Renewable Energy Use	No
Responsible Chemical Management	1
Shipping Impact	1
Product Content	1
Packaging Content	10

User Impact

Energy Consumption	N/A
Water Consumption	N/A
Lifetime Rating	3

End of Life

Packaging	9
Product	9

Environmental Impact Factor 37

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Eppendorf CyroCube ULT Freezer

ACT.

The Environmental Impact Factor Label

Eppendorf CryoCube F740hi Air-Cooled Freezer

Malden, United Kingdom

Manufacturing	
Manufacturing Impact Reduction	6
Renewable Energy Use	No
Responsible Chemical Management	1
Shipping Impact	8.5
Product Content	1
Packaging Content	5
User Impact	
Energy Consumption	10.5*
Water Consumption	N/A
Lifetime Rating	8
End of Life	
Packaging	5
Product	8
Environmental Impact Factor	55
Label Valid Through	September 2019

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Priorclave 320L Autoclave

ACT.

The Environmental Impact Factor Label

Priorclave 320L Autoclave: Non-Vacuum Cycle

London, United Kingdom

Manufacturing	
Manufacturing Impact Reduction	6
Renewable Energy Use	No
Responsible Chemical Management	1
Shipping Impact	8.8
Product Content	1
Packaging Content	10
User Impact	
Energy Consumption	31
Water Consumption	76
Lifetime Rating	1
End of Life	
Packaging	5.3
Product	1
Environmental Impact Factor	141.1
Label Valid Through	September 2019

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Renewable Energy Use

The manufacturing facility at which the 320L Autoclave is made does not use renewable energy.

Responsible Chemical Management

The score of 1 in this category reflects proof of an Environmental Health and Safety platform for tracking hazardous chemistry throughout the manufacturing process, and for obtaining SDS/MSDS information for all raw materials.

Shipping Impact

The 320L Autoclave is manufactured in London, United Kingdom.

Product Content

The 320L Autoclave contains more than 50% recycled content.

Packaging Content

The packaging of the 320L Autoclave does not contain recycled material.

Energy Consumption

The energy consumption value assumes six cycles in twelve hours, and twelve hours of the unit being in standby mode.

Water Consumption

The water consumption value assumes six cycles in twelve hours, and twelve hours of the unit being in standby mode.

Product Lifetime

The 320L Autoclave has a verified lifetime expectancy of greater than 20 years.

Packaging End-of-Life

Ninety-nine percent of the packaging by weight is recyclable (the crate). The other packaging materials (Styrofoam, stretch wrap, bubble wrap) are not recyclable.

The Goal: connecting scientists with sustainability

The Business Case

The need for more adoption and communication!

what are your thoughts?

get involved!

- feedback on the ACT label
- sustainable procurement in labs – opportunities and challenges
- adoption of eco-labels
- other thoughts…?

Thank You


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