

Caltech
green
labs



RECYCLING SLIDES

Visit the Allen Company Recycling website: <https://www.allancompany.com//>

Any questions please email: greenlabsinfo@caltech.edu

For more information visit <https://greenlabs.caltech.edu>

Why recycle?

Laboratories produce 5.5 million tons of plastic waste EVERY YEAR! This is about 2% of the total waste produced worldwide.

As scientists, we have a responsibility to protect the environment, as it is the very thing we study! Every action we make to make our labs sustainable, especially reducing, reusing, and recycling, makes a difference!





Responsibility for scientists to be better

- Science has a garbage problem
 - Numerous studies have shown this ^{1,2,3}
 - Including one done by the Resnick Institute in 2021⁴
 - For every ton of waste recycled, 5774 kWh of energy is saved (enough energy to run 43 houses for 1 year)
- We are biologists, and we are polluting the very thing we study, life on Earth
- Recycling plastic benefits everyone
 - Plastic takes hundreds of years to decompose³
 - Pollutes the environment with microplastics³
 - Recycling plastics result in 46-79% reduction in environmental impacts³

Did you know?

Caltech has recycling programs for TipOne and Genesee pipette tip boxes! Green Labs also supports Styrofoam recycling in some buildings!

[Check out our website for more details](#) on these programs, and to find the most up-to-date drop-off locations!

STYROFOAM RECYCLING GUIDE
Follow EH&S Guidelines for biohazardous, radioactive, chemical, and electronic waste. Please ensure any dry ice is completely sublimated before recycling.

ONLY CLEAN, WHITE #6 EPS FOAM

PLEASE DO NOT INCLUDE:

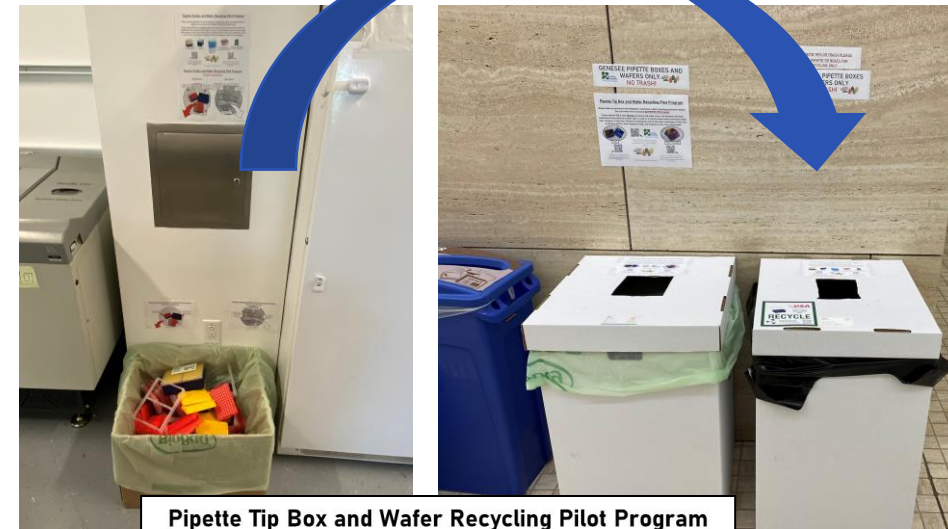
TAPE PACKING PEANUTS FOAM INSERTS STYROFOAM CUPS OR PLATES

PACKING LABELS CARDBOARD OR INSULATION ICE PACKS

Sign the petition here to support the reduction of Polystyrene (Styrofoam) waste at Caltech. [Or check our website for more information about this project or find Green Labs tips and tricks to make your lab more sustainable!](#)

Caltech green labs

Sustainably printed on 100% recycled paper!



Pipette Tip Box and Wafer Recycling Pilot Program

Green Labs has partnered with Genesee to implement a pilot recycling program for pipette box and wafers from Genesee! **NO PIPETTE TIPS PLEASE**

Please deposit **ONLY** your **Genesee** tip boxes and wafers here, and Genesee will either redistribute these plastics to other labs in need, or to recycle these wafers and boxes within their company. In this way, Genesee is making the end-of-life waste challenges of their own products a priority, thus closing the loop, and making our labs more sustainable!

RACK **REFILL TIP WAFER**

Download our 30-minute Green Labs Certification form and submit it to sustainability@caltech.edu to become Certified!


Check out Genesee's website or reach out to our representative for an amazing deal on biodegradable gloves or other sustainable lab products!

Check out our website for more tips and tricks to make your lab sustainable, or to check out other pilot programs Green Labs is implementing!

Caltech green labs **Genesee Scientific**
A Life Science Company

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What can you do?

1. RETURN products to the company, including:
 - NEB and Sigma-Aldrich (Styrofoam)
 - Thermo Scientific (low haz TS Art, Art Barrier, and SoftFit-L pipette tips and racks)
 - Corning, Falcon, and Axygen (product packaging)
2. REFUSE/REDUCE by ordering only once a week from companies that have unsustainable packaging practices, OR find alternative vendors to order from if possible.
3. REUSE packaging by asking around to see if your lab or labs nearby can use the items (such as Styrofoam packaging).
4. RECYCLE! Our current recycler is able to recycle most items with this symbol  that are larger than a credit card, as long as the items are clean!

Why should we sort our waste?

Landfill waste should go in bags, whereas recyclable materials are not bagged and have additional requirements for being

1. Correct
2. Clean
3. Compacted where appropriate.

Pre-sorting also saves Facilities from having to sort the materials themselves before sending to the recycler, meaning more items are actually recycled rather than sent to landfill!





Are there other ways our lab can recycle?

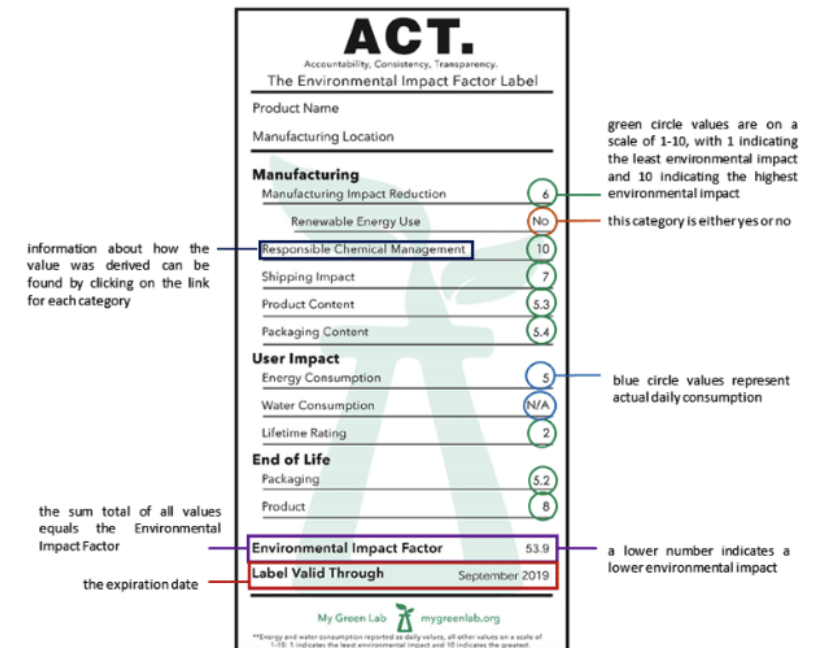
YES! Visit the links below, and reach out to us if you find other companies that have sustainable initiatives!

1. Green Labs [Pilot Programs](#) for Pipette Box and Wafer Recycling and Styrofoam
2. [Caltech e-waste and battery disposal program](#)
3. Recycle printer ink and toner cartridges: [Office Depot](#), [HP](#) (others have them, too, just google the brand name)
4. Thermo Scientific: [Takeback program for low haz TS Art, Art Barrier, and SoftFit-L pipette tips and racks](#)
5. [Recycle Corning, Falcon, Axygen product packaging](#)
6. Styrofoam Takeback programs from [New England Biolabs](#) and [Sigma-Aldrich](#)
7. [PolyCarbin](#) and [TerraCycle](#)** (Pay-for recycling program for non-hazardous coloured and clear lab plastics)
 - **If your lab has HHMI funding, you are eligible for glove recycling from TerraCycle!

What can you do in the lab (or office)?

When shopping, consider selecting products that have:

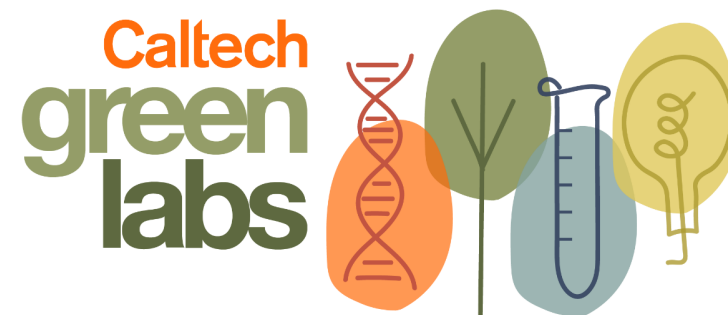
- [ACT Label Certification](#)
- Less packaging (or bulk order to reduce packaging)
- Waste return programs
- Options for right-sizing orders
- More sustainable alternatives



THE CHOICES YOU MAKE FOR YOUR LAB COUNT TOWARDS OUR SUSTAINABLE FUTURE!



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Download the [Green Labs Certification Form](#)

For more information visit <https://greenlabs.caltech.edu>

For more slide decks visit our [Fact Sheets website](#)

[Follow us on Instagram](#)



References and Additional Resources

[Visit our fact sheets website for more information!](https://greenlabs.caltech.edu/resources/fact-sheets) (<https://greenlabs.caltech.edu/resources/fact-sheets>)

- [Green Labs Pilot Programs \(including to recycle pipette tip boxes and wafers!\)](https://greenlabs.caltech.edu/green-labs-pilot-programs) (<https://greenlabs.caltech.edu/green-labs-pilot-programs>)
- [Recycling at UCLA Video](https://www.youtube.com/watch?v=HL_XhsbIHSo) (https://www.youtube.com/watch?v=HL_XhsbIHSo)
- [ACT Label Information](https://act.mygreenlab.org/) (<https://act.mygreenlab.org/>)
- Recycle printer ink and toner cartridges: [Office Depot](https://www.officedepot.com/l/services/ink-and-toner-cartridge-recycling) (<https://www.officedepot.com/l/services/ink-and-toner-cartridge-recycling>), [HP](https://www.hp.com/us-en/hp-information/recycling/ink-toner.html) (<https://www.hp.com/us-en/hp-information/recycling/ink-toner.html>)(others have them, too, just google the brand name)
- [NEB Styrofoam Return Program](https://www.neb.com/en-us/nebinspired-blog/recycling-Styrofoam) (<https://www.neb.com/en-us/nebinspired-blog/recycling-Styrofoam>)
- [Sigma-Aldrich Styrofoam Return Program](https://www.sigmaaldrich.com/US/en/services/support/recycling/polystyrene-cooler-return-program) (<https://www.sigmaaldrich.com/US/en/services/support/recycling/polystyrene-cooler-return-program>)
- [Corning, Falcon, and Axygen Product Packaging Recycle Program](https://corning.mailthisback.com/) (<https://corning.mailthisback.com/>)
- [ThermoFisher Takeback Program](https://www.thermofisher.com/us/en/home/life-science/lab-plasticware-supplies/pipettes-pipette-tips/recycle-pipette-tips.html) (to recycle low haz TS Art, Art Barrier, and SoftFit-L pipette tips and racks) (<https://www.thermofisher.com/us/en/home/life-science/lab-plasticware-supplies/pipettes-pipette-tips/recycle-pipette-tips.html>)
- [Caltech e-waste and battery disposal program](https://safety.caltech.edu/root-pages/ewaste-roundup) (<https://safety.caltech.edu/root-pages/ewaste-roundup>)
- [Allen Company Recyclers](https://www.allancompany.com/) (<https://www.allancompany.com/>)
- [Republic Waste Hauling Services](https://www.republicservices.com/?gclid=Cj0KCQjwyL24BhCtARIsALo0fSAHHTCiDIQ9yWhua_UD8r9cKzS6A-9sgM3TRi8RgWuHPir53otf2AMaAiNdEALw_wcB&utm_source=Google&utm_medium=cpc&utm_campaign=Core-Brand_21121086952&utm_term=republic%20services%20waste&utm_content=Brand-Waste_159656875626&utm_audience=MULTI&utm_geo=MULT&ef_id=Cj0KCQjwyL24BhCtARIsALo0fSAHHTCiDIQ9yWhua_UD8r9cKzS6A-9sgM3TRi8RgWuHPir53otf2AMaAiNdEALw_wcB:G:s&s_kwcid=AL!5568!3!694293588908!p!!republic%20services%20waste!21121086952!159656875626&gclid=aw.ds&gad_source=1) (https://www.republicservices.com/?gclid=Cj0KCQjwyL24BhCtARIsALo0fSAHHTCiDIQ9yWhua_UD8r9cKzS6A-9sgM3TRi8RgWuHPir53otf2AMaAiNdEALw_wcB&utm_source=Google&utm_medium=cpc&utm_campaign=Core-Brand_21121086952&utm_term=republic%20services%20waste&utm_content=Brand-Waste_159656875626&utm_audience=MULTI&utm_geo=MULT&ef_id=Cj0KCQjwyL24BhCtARIsALo0fSAHHTCiDIQ9yWhua_UD8r9cKzS6A-9sgM3TRi8RgWuHPir53otf2AMaAiNdEALw_wcB:G:s&s_kwcid=AL!5568!3!694293588908!p!!republic%20services%20waste!21121086952!159656875626&gclid=aw.ds&gad_source=1)
- [PolyCarbin Lab Plastics Recycling Program](https://polycarbin.com/pages/recycle?srsId=AfmBOopSLNFkuastfMutTymBk-4JswDHXpri8jqlzLgu0u1B_GVKka1g) (https://polycarbin.com/pages/recycle?srsId=AfmBOopSLNFkuastfMutTymBk-4JswDHXpri8jqlzLgu0u1B_GVKka1g)
- From slide 3:
 - 1: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKewitocAZ_aL0AhV_EDQIHQr8A2oQFnoECAUQAQ&url=https%3A%2F%2Fthewire.in%2Fthe-sciences%2Fscience-has-a-garbage-problem-why-arent-recycling-schemes-more-popular&usg=AOvVaw0zULE80XwiUgmms6d0Etle
 2. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKewj-yqjH_aL0AhUHJzQIHTxkA7sQFnoECBsQAQ&url=https%3A%2F%2Fsustain.ubc.ca%2Fstories%2Fgloves-lawn-furniture-ubc-nitrile-glove-recycling-pilot&usg=AOvVaw0EKKYnAcq2Ns4XfZzhk97s
 - 3: <https://www.koup.co/blogs/the-koup-blog/virgin-plastic-vs-recycled-plastic>
 - 4: <http://www.sustainability.caltech.edu/engage/green-labs-network>