
Behind the “Chemical Recycling” Curtain

Public Record Requests Reveal Risky Chemicals at Facilities.
NRDC Issue Brief – July 2026



Shannon Goff, Advocacy Associate, Toxics and Environmental Health, NRDC
spuebla@nrdc.org



Dr. Veena Singla
Affiliate, UCSF
Program on Reproductive
Health and the Environment
veena.singla@ucsf.edu



Renée Sharp
Director, Plastics and
Petrochemical Advocacy,
Environmental Health
rsharp@nrhc.org

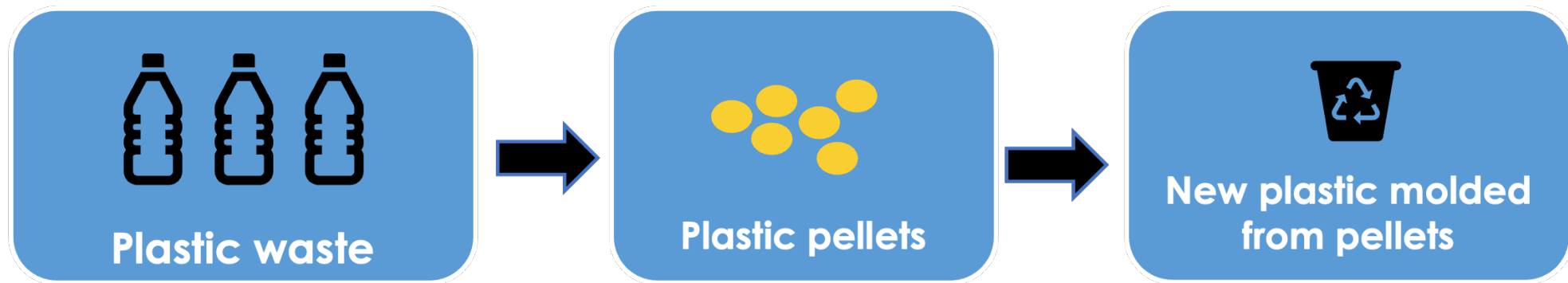
Today: looking behind the curtain

- About toxic “chemical recycling”
- Public records requests for information about hazardous chemicals at “chemical recycling” facilities across the US
- Facilities store and use large amounts of hazardous chemicals that are carcinogens and acutely toxic; raise risks of spills, fires, and explosions
- Hazardous chemicals are transported to and from facilities by highway and rail
- Some facilities are not following regulatory reporting requirements, leaving workers, first responders, and communities in the dark about potential threats

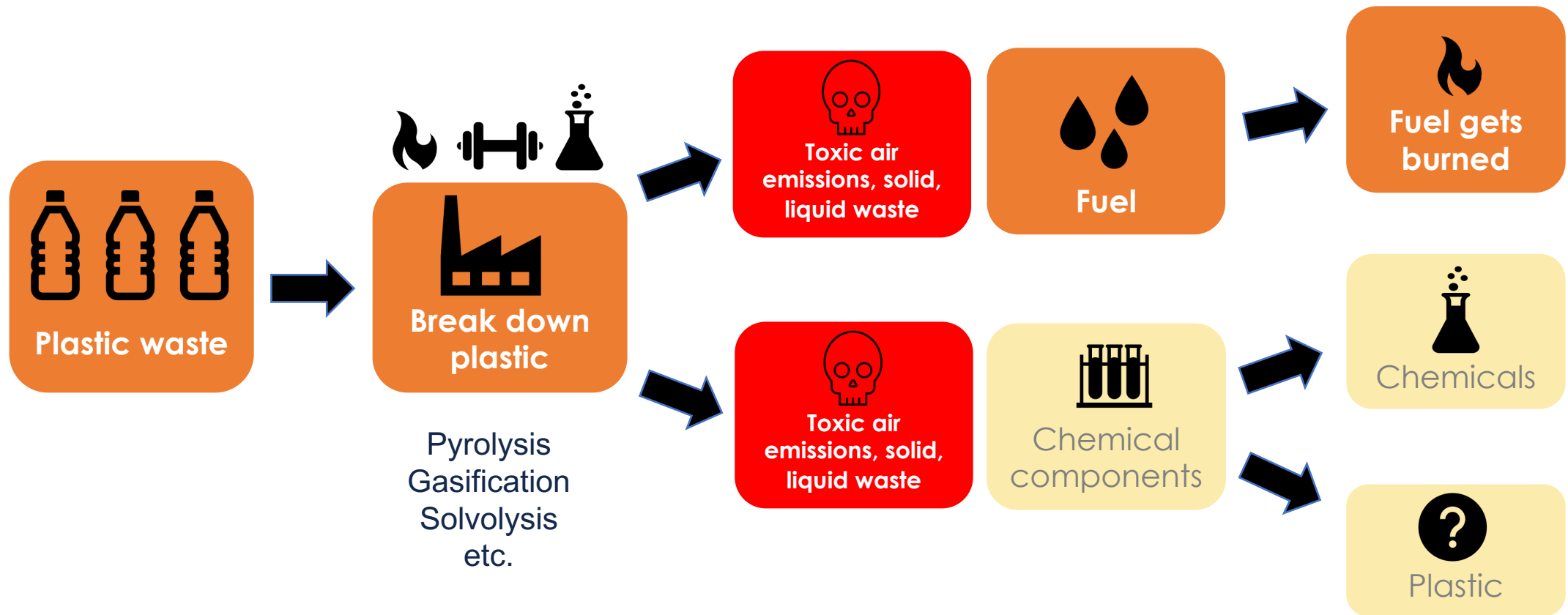
Origin of this project

Two major NRDC analyses of the “chemical recycling” industry revealed that it’s mostly not recycling at all but is rather greenwashed incineration.

Mechanical recycling: plastic → plastic



“Chemical recycling”: plastic → fuel, chemicals, toxic emissions, + waste



Other Findings

- Pyrolysis accounts for 80% of “chemical recycling” operating and proposed facilities in the U.S.
- More than a third of all states have at least one proposed or currently operating facility.
 - Tend to be in low-income communities and/or communities of color.
 - Even communities/states without facilities could still be impacted from the transportation of hazardous waste.

CHEMICAL RECYCLING:

fails to recycle plastic

leads to air and water pollution and toxic waste

harms environmental justice communities

facilities store and use hazardous chemicals

CHEMICAL RECYCLING:

fails to recycle plastic

leads to air and water pollution and toxic waste

harms environmental justice communities

facilities store and use hazardous chemicals

→ *What kinds? How much?*

EPCRA request process

Emergency Planning and Community Right-to-Know Act (EPCRA)

[About EPCRA](#)



[Emergency Planning](#)



[Emergency Release Notifications](#)



[Hazardous Chemical Inventory Reporting](#)



[State Reporting Requirements](#)

[Tier II Forms](#)

[Tier2 Submit Software](#)

[EPCRA Trade Secrets](#)

[EPCRA Site Map](#)

[Contact Us about the Emergency Planning and Community Right-to-Know Act \(EPCRA\)](#)

State Tier II Reporting Requirements and Procedures

To obtain Tier II reporting procedures and requirements for your state or territory, please click on the state or territory where the reporting facility is located.

At this time, EPA is not aware of any tribes that are implementing the [hazardous chemical inventory reporting requirements](#) under the Emergency Planning and Community Right-to-Know Act (EPCRA) sections 311-312. If your facility is on tribal lands, please contact your state and tribe to determine your reporting requirements.

[Alabama](#)

[Alaska](#)

[American Samoa](#)

[Arizona](#)

[Arkansas](#)

[California](#)

[Colorado](#)

[Connecticut](#)

[Delaware](#)

[District Of Columbia](#)

[Florida](#)

[Georgia](#)

[Guam](#)

[Hawaii](#)

[Idaho](#)

[Illinois](#)

[Indiana](#)

[Iowa](#)

[Kansas](#)

[Kentucky](#)

[Louisiana](#)

[Maine](#)

[Maryland](#)

[Massachusetts](#)

[Michigan](#)

[Minnesota](#)

[Mississippi](#)

[Missouri](#)

[Montana](#)

[Nebraska](#)

[Nevada](#)

[New Hampshire](#)

[New Jersey](#)

[New Mexico](#)

[New York](#)

[North Carolina](#)

[North Dakota](#)

[Ohio](#)

[Oklahoma](#)

[Oregon](#)

[Pennsylvania](#)

[Puerto Rico](#)

[Rhode Island](#)

[South Carolina](#)

[South Dakota](#)

[Tennessee](#)

[Texas](#)

[Utah](#)

[Vermont](#)

[Virgin Islands \(U.S.\)](#)

[Virginia](#)

[Washington](#)

[West Virginia](#)

[Wisconsin](#)

[Wyoming](#)

EPCRA request process

An official State of Ohio site. [Here's how you know](#) ▼

Language Translation



Environmental
Protection
Agency

Stay Compliant

Get Involved

Monitor Pollution

Get Funding

Find Regulations ? Help

Search

Ohio EPA / Divisions & Offices / Air Pollution Control / State Emergency Response Commission / SERC Public Information Request

Welcome

Announcements

Contacts

About DAPC

Programs

Asbestos Abatement &
Demolition

Guides & Manuals

E-Check

Open Burning

Permitting Resources

Reports & Data

SERC Public Information Request

On behalf of the State Emergency Response Commission (SERC), the Ohio EPA maintains information submitted to the SERC and is responsible for the receiving and fulfilling requests from the public for access to that information. A person who requests to receive a copy of information submitted under Ohio Revised Code Chapter 3750, Emergency Planning shall submit a separate application for each facility for which information is being requested.

[SERC developed "SERC Information Request Form" \(PDF\)](#)

[SERC developed "SERC Information Request Form" \(Word\)](#)

Contact:

serc@epa.ohio.gov

SERC Main line [800.644.2260](tel:800.644.2260)

Release/Spill Information ONLY:

If the request regards release/spill information under ORC Section 3750.06, please contact the Ohio EPA, Rich Boudier, Richard.boudier@epa.ohio.gov

Share this



TEXAS COMMISSION
ON ENVIRONMENTAL QUALITY

Open Records Request - Page 1 of 3

[What's This?](#) Time Remaining: 1:54:15

Some TCEQ records are available online.

Visiting the [TCEQ Data and Records](#) page before making an Open Records Request could save you some time and possibly some cost.

TCEQ records are available for public viewing unless one of the [Exceptions to Disclosure](#) applies.

Filling out this page is **OPTIONAL**. However, including the RN or the CN can speed up your request.

I want records for a Site/Facility/Location:

What Site or Facility are you looking for? Fill in one or more fields, then click "Add to List"

Regulated Entity Number (RN): [What's This?](#) [Search for RN](#) [How to Search for an RN](#)

Facility Name:

Customer Number(CN): [What's This?](#) [Search for CN](#)

Customer Name:

Additional ID: [What's This?](#) [Search for Permits/Registration/Program ID](#)

Program: [What's This?](#)

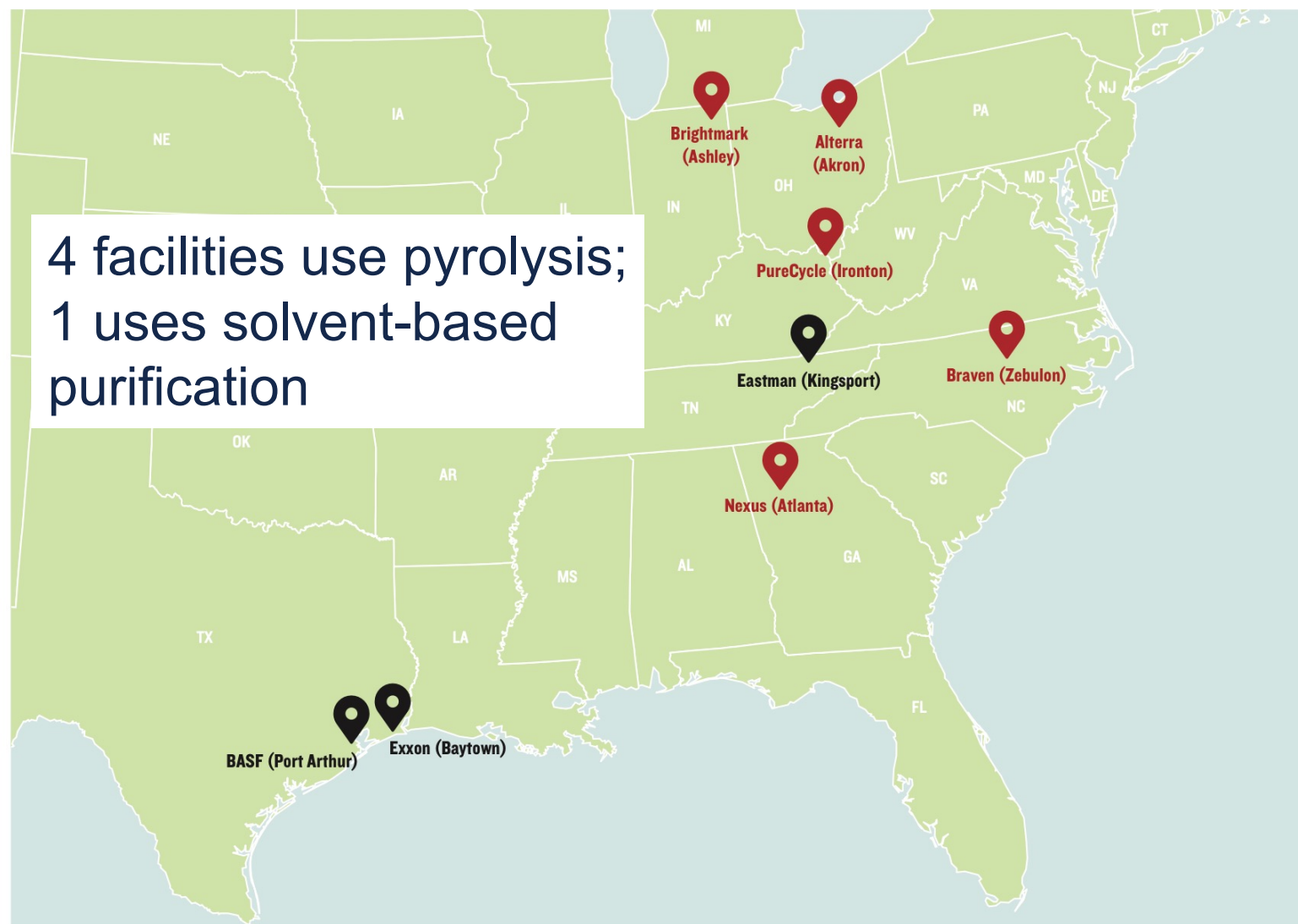
[Add to List](#)

Sites/Facilities [0]					
RN	Facility	Customer	Program	Additional ID	Remove
No records found					

Can you give us the Site/Facility Location?

Address or Specific Area Description:

FIGURE 1: MAP OF “CHEMICAL RECYCLING” FACILITIES FOR WHICH EPCRA DATA WERE REQUESTED



Alterra, Brightmark, Braven, and Nexus use pyrolysis and PureCycle uses solvent-based purification.

Red = Data are presented in this brief; Black = “Chemical recycling” facility is part of a larger complex so data specific to “chemical recycling” cannot be separated.

FIGURE 3: EXCERPT FROM BRIGHTMARK 2024 RESPONSE, HIGHLIGHTED TO SHOW PHYSICAL AND HEALTH HAZARDS OF PYROLYSIS OIL

Chemical Description	Physical Hazards	Health Hazards
Chemical ID: 412622 Check if Chemical Information is changed from the last submission: ☒ CAS #: 69013-21-4 Trade Secret: ☐ Chemical Name: Fuel oil, pyrolysis EHS: ☐ Contains ☐ Exceeds ☐ EHS: ☐ TPQ: EHS Name: ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas MS DS/ SD S Chemical Added On: If a retail gas station, check if you are storing less than 75,000 gallons of gasoline or 100,000 gallons of diesel entirely underground: ☐	☐ Combustible dust ☐ Corrosive to metal ☐ Explosive ☒ Flammable (gases, aerosols, liquids, or solids) ☐ Gas under pressure ☐ Hazard Not Otherwise Classified (HNOC) ☐ In contact with water emits flammable gas ☐ Organic peroxide ☐ Oxidizer (liquid, solid or gas) ☐ Pyrophoric (liquid or solid) ☐ Pyrophoric gas ☐ Self-heating ☐ Self-reactive	☐ Acute toxicity (any route of exposure) ☐ Aspiration hazard ☒ Carcinogenicity ☒ Germ cell mutagenicity ☐ Hazard Not Otherwise Classified (HNOC) ☒ Reproductive toxicity ☒ Respiratory or skin sensitization ☒ Serious eye damage or eye irritation ☐ Simple asphyxiant ☒ Skin corrosion or irritation ☒ Specific target organ toxicity (single or repeated exposure)

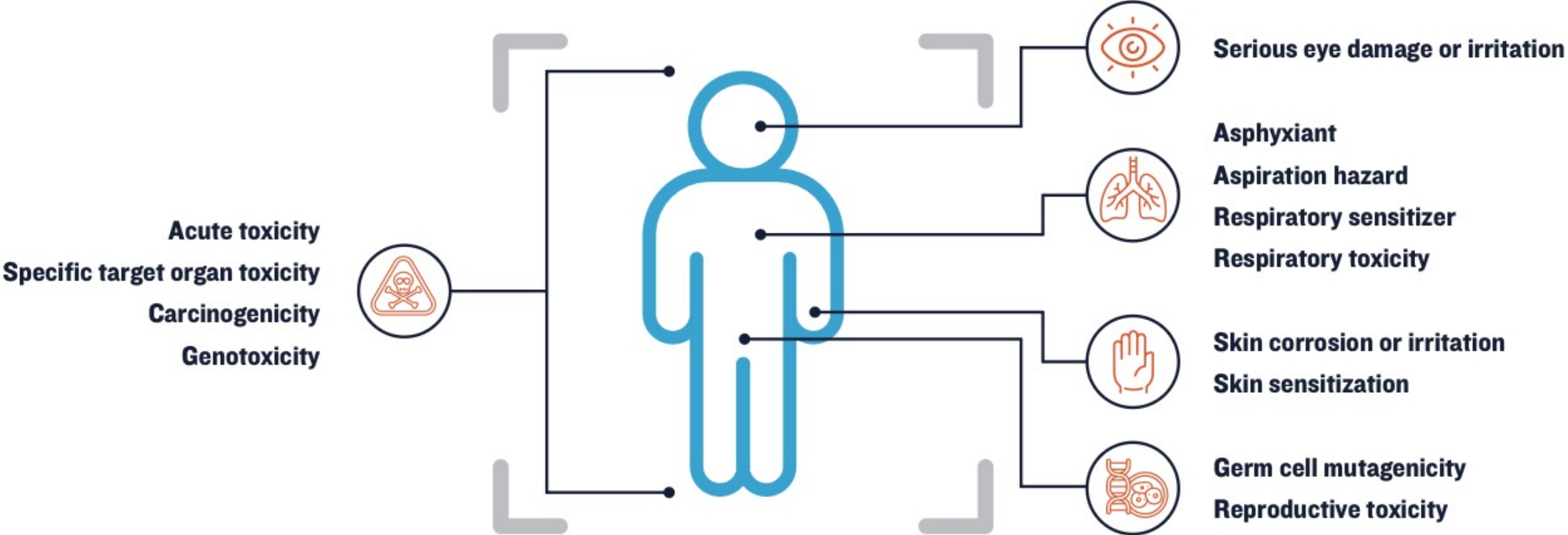
Table 2: Chemicals Reported by “Chemical Recycling” Facilities for 2024

Does not include equipment, mixture components (individual chemicals that make up chemical mixtures), and other information reported; see Appendix and online documents for full data reported. When multiple companies reported the same chemical, reported health hazards are combined. An asterisk (*) indicates that the health or physical hazard was not reported but is identified by authoritative lists as a hazard for that chemical; see more in section on “critical data are omitted.” CASRN = Chemical Abstracts Service Registry Number; ND = no data to determine likely chemical function.¹⁵ The likely chemical function was not reported; it was determined by chemical name (e.g., “gear oil”) or information in other sources. See Figure 2 for description of terminology. Orange = chemical inputs; yellow = energy inputs; lavender = waste outputs; blue = intermediate product output; and green = other product output.

Likely chemical function	Chemical name (alternate name(s)), CASRN	Reporting company	Health hazards reported	Physical hazards reported	Daily amount reported (pounds)
Input: chemicals—lubricant ¹⁶	HYGOLD P100N, 64742-65-0	Braven	■ Skin corrosion or irritation ■ Serious eye damage or eye irritation	None reported	“Below reporting thresholds”
Input: chemicals—lubricant	Gear oil/lubricant, CASRN not reported	Alterra	■ Acute toxicity (any route of exposure) ■ Specific target organ toxicity (single or repeated exposure)	Flammable (gases, aerosols, liquids, or solids)	max: 1,000–4,999 avg: 1,000–4,999
Input: chemicals—heat transfer fluid ¹⁷	Therminol 62, CASRN not reported	Brightmark	■ Aspiration hazard ■ Reproductive toxicity ■ Skin corrosion or irritation ■ Specific target organ toxicity (single or repeated exposure)	None reported	max: 17,431 avg: 17,431

FIGURE 4: HEALTH HAZARDS OF CHEMICALS REPORTED BY “CHEMICAL RECYCLING” FACILITIES

See Appendix for descriptions of the health hazards.



Physical hazards also reported

- Flammable
- Corrosive
- Explosive
- Compressed gas



Physical hazards also reported

- Flammable
 - **Every facility has flammable chemicals present on-site**
 - **Reported amounts from 60,000 to >3 million pounds on any given day**



**10,000 to 3 million pounds
of pyrolysis oil stored
on-site on any given day**

**In 2022, Brightmark
reported a spill of 170
gallons of pyrolysis oil**



Hazardous chemical incidents occur almost every day in the United States.

Shipping hazardous chemicals extends the risk of harm beyond the vicinity of the facilities.



Still missing critical data

Purpose or
function of the
chemical

Health and
physical hazards
reported not
consistent

Amounts not
always accurately
reported

Amounts below
EPCRA threshold

Chemical names or
CASRNs sometimes
omitted

Some facilities part
of larger complex

Summary

Large amounts of seriously hazardous chemicals shipped and stored around the country

Lack of awareness and transparency

Recommendations

Strengthen health, pollution, and community right-to-know safeguards.

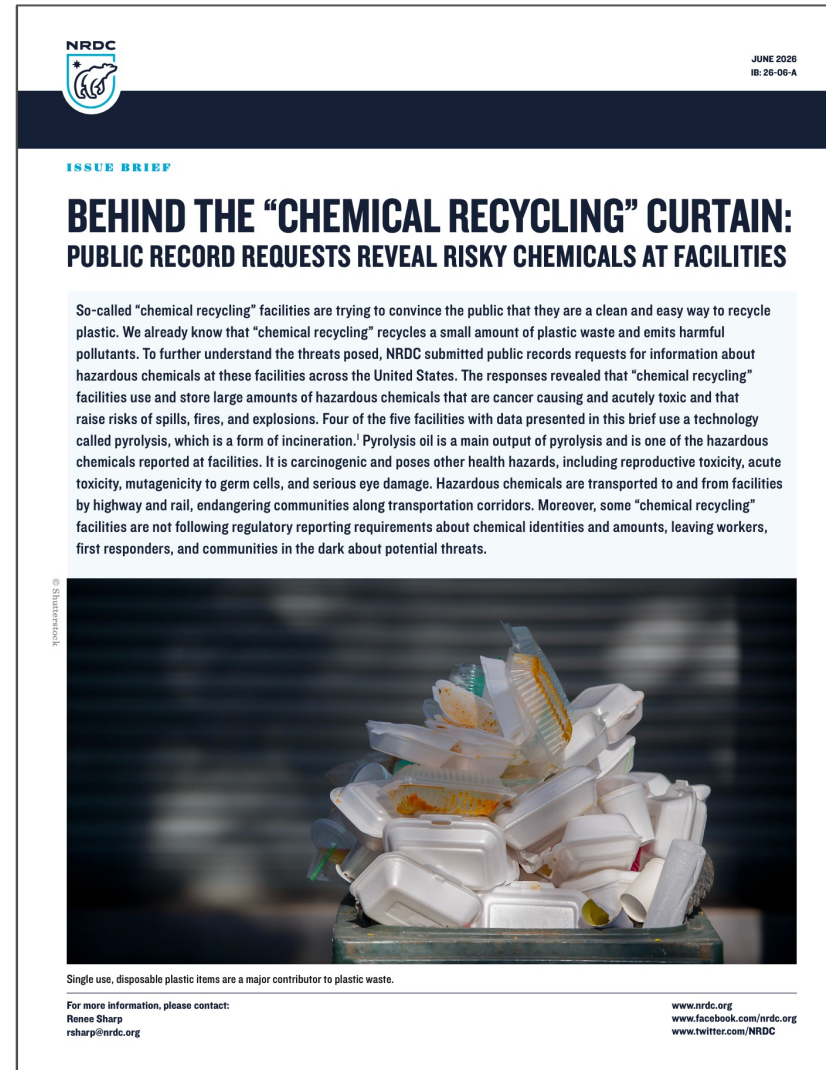
Require transparency and accountability for chemical recycling impacts.

Reject subsidies and greenwashing; prioritize real plastics solutions.

Call to action

We plan to send more requests for Tier II and Emergency Plan information.

- **Please connect if you have a facility you would like to be involved in the request for!**



<https://www.nrdc.org/resources/chemical-recycling>

Thank you

Shannon Goff, spuebla@nrdc.org

Renee Sharp, rsharp@nrdc.org

Veena Singla, veena.singla@ucsf.edu

