



# Chemours Consent Order Toxicity Studies: *Status Updates*

NC Secretaries' Science Advisory Board Meeting  
October 1, 2025

Frannie Nilsen, PhD  
DEQ Environmental Toxicologist



## *Consent Order Paragraph 14 PFAS*

PFMOAA

PMPA

PFO2HxA

PEPA

Nafion BP2

# Chemours Consent Order: Toxicity Study Details – P:14

“The following studies, which shall be conducted following applicable USEPA, OECD protocols as defined in the USEPA TSCA, OPPT or other appropriate programs as determined by DEQ.”

## Ecological Toxicity Studies:

- Algal acute (72-hour growth) toxicity study
- Daphnid acute toxicity study
- Daphnid chronic (reproduction) toxicity study
- Fish acute toxicity study
- Sediment 10-day freshwater invertebrates

***Aquatic Tox Studies:***  
*algae, zooplankton, fish, earthworms*

## Rodent Toxicity Studies

- 28-day oral immunotoxicity study in rats
- 28-day oral immunotoxicity study in mice
- 90-day repeated dose oral toxicity study in rats
- 90-day repeated dose oral toxicity study in mice

***Rodent Studies: mouse and rat;***  
*classic and immuno-toxicity*

# Aquatic Toxicity Studies – Completion Status

| P:14 PFAS Compound           | Algae           | Daphnia (acute) | Daphnia (chronic) | Fish            | Sediment                   |
|------------------------------|-----------------|-----------------|-------------------|-----------------|----------------------------|
| PFMOAA                       | ✓               | ✓               | ✓                 | ✓               | ✓                          |
| PMPA                         | ✓               | ✓               | ✓                 | ✓               | ✓                          |
| PEPA                         | ✓               | ✓               | ✓                 | ✓               | ✓                          |
| PFO2HxA                      | ✓               | ✓               | ✓                 | ✓               | ✓                          |
| Nafion BP2                   | ✓               | ✓               | ✓                 | ✓               | Final report expected soon |
| <i>Date presented to SAB</i> | <i>Dec 2024</i> | <i>Dec 2024</i> | <i>April 2025</i> | <i>Dec 2024</i> | <i>TBD – Dec?</i>          |

# *Rodent Toxicity Studies – Completion Status*

| P:14 PFAS Compound | Rat 28-day<br>Immuno- Tox | Rat 90-day<br>Classic Tox | Mouse 28-day<br>Immuno-Tox | Mouse 90-day<br>Classic Tox |
|--------------------|---------------------------|---------------------------|----------------------------|-----------------------------|
| Nafion BP2         | ✓                         | –                         | ✓                          | –                           |
| PFMOAA             | Analysis Underway         | –                         | Analysis Underway          | –                           |
| PMPA               | Analysis Underway         | –                         | Analysis Underway          | –                           |
| PEPA               | Analysis Underway         | –                         | Analysis Underway          | –                           |
| PFO2HxA            | Experiment Ongoing        | –                         | Experiment<br>Scheduling   | –                           |

– Not started

## *Rat 28-day Immuno-Tox Study Dates*

| <b>P:14 PFAS Compound</b> | <b>Start (dosing)</b> | <b>End (necropsy)</b> | <b>Draft report</b> | <b>Final report</b> | <b>Status</b>         |
|---------------------------|-----------------------|-----------------------|---------------------|---------------------|-----------------------|
| Nafion BP2                | 04 Jun 2024           | 03 Jul 2024           | 27 Sep 2024         | 26 Mar 2025         | Complete              |
| PFMOAA                    | 29 Jan 2025           | 27 Feb 2025           | 22 May 2025         | 18 Nov 2025         | Awaiting final report |
| PEPA                      | 04 June 2025          | 03 Jul 2025           | 29 Sep 2025         | 27 Mar 2026         | Awaiting final report |
| PMPA                      | 24 Jun 2025           | 23 Jul 2025           | 16 Oct 2025         | 14 Apr 2026         | Analysis Underway     |
| PFO2HxA                   | 16 Sep 2025           | 15 Oct 2025           | 14 Jan 2026         | 13 Jul 2026         | Experiment Underway   |

## Mouse 28-day Immuno-Tox Study Dates

| 14 PFAS Compound | Start (dosing)       | End (necropsy) | Draft report | Final report | Status            |
|------------------|----------------------|----------------|--------------|--------------|-------------------|
| Nafion BP2       | 14 Jul 2025          | 12 Aug 2025    | 05 Nov 2025  | 04 May 2026  | Analysis Underway |
| PFMOAA           | 29 July 2025         | 26 Aug 2025    | 05 Nov 2025  | 04 May 2026  | Analysis Underway |
| PEPA             | 28 July 2025         | 25 Aug 2025    | 19 Nov 2025  | 18 May 2026  | Analysis Underway |
| PMPA             | 21 Jul 2025          | 19 Aug 2025    | 12 Nov 2025  | 11 May 2026  | Analysis Underway |
| PFO2HxA          | Currently Scheduling |                |              |              |                   |

## *Next Steps: Studies Underway and Completed*

Receive final reports  
for  
earthworms/sediment  
experiment

- *Present all aquatic toxicity study results together at Dec 2025 SAB meeting.*

Receive/Review final  
reports for in-progress  
rodent 28-day studies

- Present at SAB meetings as they are received

# *Next Steps: Remaining Studies*

## Rodent Toxicity Studies:

- *90-day toxicity study in rats*
- *90-day toxicity study in mice*
- All 5 PFAS

## Doses and Scheduling

- Discuss with Chemours toxicologist and Charles River Labs scientists

*Thank you*

*Department of Environmental Quality*