

[REDACTED]

From: [REDACTED]
Sent: 09 November 2022 11:12
To: [REDACTED]
Cc: [REDACTED]
Subject: Dutch Papers
Attachments: Dutch PFOA Dupont (English).pdf; Dutch PFOA Dupont.pdf

Hi [REDACTED]

Good to meet at the conference yesterday. I promised you a couple of Dutch papers, see extracts and links below. The paper I looked at had emissions of about 1 – 2 tpa of PFOA to air from DuPont, which doesn't sound enormously different to the estimated releases from AGC. However, I'm reading tables in Dutch, errors are possible.

Dutch news article on releases from their DuPont PTFE factory

['Chemical factory Chemours discharged much more GenX into water than allowed for months' - Zembla - BNNVARA](#)

The Dutch limit of Gen-X releases is quoted as 5kg per year.

The article links to advice on vegetables grown near the factory

[PFAS in crops from vegetable gardens in Dordrecht, Papendrecht, Sliedrecht and Molenlanden | Rivm](#)

"Crops from vegetable gardens that are further than a kilometer from the chemical company Dupont / Chemours in Dordrecht can be eaten. For a number of these vegetable gardens, RIVM advises to alternate eating crops with fruit and vegetables from the supermarket. RIVM advises not to eat crops from vegetable gardens that are less than 1 kilometer northeast of the chemical company. By eating these crops, people get so much Pfas (Poly- and perfluoroalkyl substances) within which health effects cannot be excluded."

The author is RIVM, National Institute for Public Health and the Environment for the Netherlands. The impact relates to historical emissions of PFOA.

There is a link to breast milk study as well, but that does not seem to be very rigorous [Baby's environment Chemours exposed to too much PFAS via breast milk - Zembla - BNNVARA](#).

Paper attached on potential health impact on local residents and extract below.

We do not lead on public health, we may advise the Local Authority, UKHSA or FSA of the Dutch papers.

Please note that AGC have not been mentioned in any discussions with the Dutch regulator.

Best wishes

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Abstract

People living in the direct neighborhood of the Dupont/Chemours factory in Dordrecht have been exposed to perfluorooctanoic acid (PFOA) by air for many years. It is likely that they have been chronically exposed to higher values of PFOA than the limit value for chronic exposure derived by RIVM. Several scenarios for emission were used to estimate the exposure period above the limit value. In the most unfavourable case,

the limit value was exceeded for 25 years. At such a level of chronic exposure to PFOA, health effects, such as on the liver, cannot be excluded. The risk assessment did not indicate risks to the unborn child. The additional cancer risk seems to be limited.

RIVM made a risk assessment of the emission of PFOA from the factory in Dordrecht between the years 1970 and 2012 and possible health effects for people living in the neighborhood of the factory. This was based on an estimation of the distribution of PFOA in air and drinking water. PFOA levels were not elevated in drinking water for the population in the neighborhood of the factory. PFOA was used up to 2012 for the production of Teflon. In 2013, PFOA was placed on the European candidate list for Substances of Very High Concern (SVHC) because the substance is persistent, bioaccumulative, toxic for reproduction and may cause cancer. The RIVM limit value takes the accumulation of PFOA in the human body and long-term exposure into account, making it suitable for a risk assessment for exposure since the year 1970.

No negative health effects are expected for long term exposure below the level of the RIVM limit value for chronic exposure. At levels above the RIVM limit value, a risk for health effects exists. This study indicates that the RIVM limit value was not exceeded anymore after the year 2002. Based on the risk assessment, further research is recommended to decide if additional health research of the population surrounding the factory is indicated.

Possible health effects of PFOA by workers of this factory were outside the scope of the present assessment. Based on the results of this study, additional research into risks for workers is indicated.

RIVM has performed this research by request of the ministry of Infrastructure and the Environment (IenM) after questions in parliament. These were triggered by various studies on the health effects related to PFOA emission by a factory in the United States, where exposure to PFOA via drinking water and air was higher than in the case of the Dordrecht factory.

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