

Comments on the PFAS proposal

Zhejiang Quhua Fluor- Chemistry Co., LTD.

We, Zhejiang Quhua Fluor-Chemistry Co., LTD., would like to make a comment on the current PFAS proposal, As a chemicals manufacturer, We have been making unremitting efforts to comply with domestic and international regulations, and continue to conduct strict self-review of products exported to the EU for compliance. We have long supported ambitious attempts by the EU to reduce the risks caused by toxic and hazardous substances and to take practical measures in good faith to meet the requirements of EU chemicals regulations, including that of REACH.

Zhejiang Quhua Fluor-Chemistry Co., Ltd. is a manufacturer of fluorinated gases. The HFCs and HfOs produced by our company are included in the restricted list of the EU PFAS proposal. As a stakeholder, we intend to put forward our views in the public consultation of ECHA. We believe that:

P32 of PFAS Proposal : Some fluorinated gases (such as some HFOs) eventually degrade into PFAAs, such as TFA or PFBA. So these gases also contribute to the overall exposure and risk of PFAAs.

The following public sources show different views:

1. Opinion of the European Refrigerant Association:

Although the degradation of HFO and HFC can produce TFA (trifluoroacetic acid), TFA is a naturally occurring substance that is present in seawater and soil, and scientists strongly believe that the concentration of trifluoroacetic acid will not adversely affect aquatic plants and animals.

2. S. Madronich and et al., Protection of stratospheric ozone from Climate Change and changes in Tropospheric air quality. Photochemical & Photobiological Sciences, Published online 13 June 2023.

2.1 Abstract

Recent modelling studies have shown that increased UV radiation is associated with depletion and that stratospheric ozone contributes to a small increase (about 3%) in global mean OH concentrations over the period 1980-2020. Alternatives to ozone-depleting substances include chemicals that react with OH radicals, thereby preventing the transport of these chemicals into the stratosphere. Some of these chemicals, such as HFCS, which are currently being phased out, and Hfos, which are now being increasingly used, break down into Tfas, whose impact in the environment is being further investigated. One such product, trifluoroacetic acid (TFA), has no obvious degradation pathway and may

accumulate in some water bodies, but will not produce negative effects before 2100.

2.2 3.6.3 Environmental persistence of trifluoroacetic acid

Persistence is one of the criteria used to identify persistent organic pollutants (POPs), such as those governed by the Stockholm Convention. Durability alone is considered a criterion for regulatory action. The recommended threshold for this classification is a degradation half-life greater than 6 months. The stability of TFA and its salts indicates a half-life of greater than 6 months, but our view is that persistence should only be considered as a regulatory standard for substances that are moderately or highly toxic and/or bioaccumulative in organisms and/or undergo nutritional amplification. At low to moderate exposures currently measured in the environment or projected in the distant future, TFA does not bioaccumulate and is not toxic.

3. Evaluation Report 2022: Stratospheric ozone depletion, Environmental effects of ultraviolet radiation and interactions with climate change, United Nations Environment Programme (UNPE) Ozone Secretariat

The role of ultraviolet radiation in the troposphere: TFA has a long environmental lifetime, can accumulate in surface and groundwater, and

is found in blood, drinking water, beverages, dust, plants, and agricultural soils. However, due to its high solubility, it does not interact with biomolecules in water and it does not bioaccumulate. It is unlikely to adversely affect terrestrial and aquatic life. However, due to uncertainties regarding the deposition of TFA and its potential impact on Marine life, an assessment is recommended.

Fluorine is a highly safe compound in terms of toxicity and flammability, has many applications and is particularly efficient. In addition, trifluoroacetic acid, which is a naturally degradable fluorinated gas, has been shown in reports submitted by the German and Norwegian Environmental agencies to pose low toxicity to organisms and humans, as detailed in their restriction recommendation 3,4. These results suggest that fluorinated gases should not be regulated in the same way as PFOA and PFOS.