

1H-perfluorohexane Mass Balance (v4.1) (2020 & 2021)				
1	Total 1H-perfluorohexane Usage (kg)	2020 29888	2021 27670	Notes Estimate based on January to November 2021 usage from the Month End spreadsheet + estimated usage in December 2021
2	Total ETFE Production (kg)	2020 1190635	2021 1432294	Notes Estimate based on January to November 2021 production from the Month End spreadsheet + estimated usage in December 2021
3	1H-perfluorohexane Emissions to Water (River) (kg)	2020 0	2021 35	Notes This is based on an assumption of 1.5ppm solubility of C6H in water at the key measurement points - This is below the limit of detection (10ppm). If the result was up to 10ppm that would result in up to 200kg emission.
4	1H-perfluorohexane Emissions to Air (kg)	2020 18552	2021 24502	Notes The key factors in the difference between 2021 and previous years is the measurement of filter change losses and previously unidentified drains & venting.
5	1H-perfluorohexane to Thermal Oxidiser (kg)	2020 477	2021 605	Notes Similar to previous years, however, calculation method is more robust
6	1H-perfluorohexane Lost in Product (kg)	2020 42	2021 1213	Notes Note that the increase in product quantity is due to measurements in the UK of UK produced product. While this accounts for the increase stated it is unlikely to be an actual increase
7	1H-perfluorohexane Lost via waste to Landfill (kg)	2020 80.2	2021 844	Notes The increase is accounted for by measurement of individual waste sources rather than as before an estimate of the overall composition that proved to be an underestimate
8	1H-perfluorohexane Chemical waste disposal (kg)	2020 0	2021 749	Notes This waste is from the Isododecane Distillation column and is a potentially a new waste product - recovery could be considered at an off-site location, otherwise disposal is required.
9	Total 1H-perfluorohexane Consumption (kg/kg)	2020 0.0251	2021 0.0193	Notes
10	Total 1H-perfluorohexane Losses (kg)	2020 19151	2021 27949	Notes/Improvements
11	Total 1H-perfluorohexane Losses unaccounted for (kg)	2020 10737	2021 -279	Notes/Improvements The improvement in mapping is due to systematic identification of loss routes, a concerted team effort across projects, technical support, production & QC departments. There is still areas of uncertainty in some areas (particularly the SLG unit performance), however, over 99% of the mapping derives from measurement & observation combined with sound assumptions and extrapolation

Looking Ahead

In 2022, AGCCE will look to further refine the data and measurements and identify methods to reduce losses.

This will lead to a scope and program of work to address the key loss contributors. Priority will be given to the biggest losses identified in the mapping process.

Ongoing measurements will help to ensure that improvements made are checked and consolidated.

The mass balance will be rechecked to demonstrate the effectiveness of the improvements and to assist with future compliance.

A continuous improvement cycle of Plan Do Check Act will be used to drive the process.