

Supplemental Table 1

Supplemental Table 1: Results of a 4-parameter sigmoidal curve fit of the payload release from single payload ARSs reported in Figure 3. The 95% confidence interval of the maximum payload release (R_{max}), minimum payload release (R_{min}), and the acoustic pressure at which half of maximum payload release was observed (P_{50}) are listed in the format $S [S_L, S_H]$, where S is the average value, S_L is the lower bound value, and S_H is the upper bound value.

Time Point	Variable	PFP-ARS (0.33% v/v) (Figure 3A)	PFHep-ARS (0.67% v/v) (Figure 3B)	PFH-ARS (0.67% v/v) (Figure 3C)	PFhep-ARS (0.33% v/v) (Figure 3D)
Day 2	Bottom (%)	4.71 [N/A, 5.3]	0.58 [0.45, 0.70]	0.97 [0.34, 1.57]	0.65 [0.06, 1.21]
	Top (%)	21.75 [8.72, N/A]	3.23 [3.05, 3.49]	7.20 [6.79, 7.68]	13.90 [12.90, 15.41]
	P50 (MPa)	20.19 [2.88, 527.70]	3.04 [2.81, 3.36]	1.68 [1.49, 1.90]	3.29 [3.02, 3.67]
Day 3	Bottom (%)	8.53 [N/A]	0.67 [0.47, 0.85]	1.33 [0.66, 1.99]	1.38 [0.70, 2.01]
	Top (%)	79.00 [N/A]	4.94 [4.69, 5.27]	10.33 [9.86, 10.88]	17.15 [16.08, 18.66]
	P50 (MPa)	76.15 [N/A]	2.93 [2.73, 3.17]	1.70 [1.54, 1.87]	3.23 [2.99, 3.54]

Supplemental Table 2

Supplemental Table 2: Results of a 4-parameter sigmoidal curve fit of the payload release from dual payload ARSs reported in Figure 4. The 95% confidence interval of the maximum payload release (R_{max}), minimum payload release (R_{min}), and the acoustic pressure at which half of maximum payload release was observed (P_{50}) are listed in the format $S [S_L, S_H]$, where S is the average value, S_L is the lower bound value, and S_H is the upper bound value.

Time Point	Variable	PFP/PFHep-ARS (PFP, 0.33% v/v) (Figure 4A)	PFP/PFHep-ARS (PFHep, 0.67% v/v) (Figure 4B)	PFH/PFHep-ARS (PFH, 0.67% v/v) (Figure 4C)	PFH/PFHep-ARS (PFHep, 0.33% v/v) (Figure 4D)
Day 2	Bottom (%)	2.36 [2.12, 2.56]	0.98 [0.75, 1.17]	0.74 [0.15, 1.27]	0.58 [0.32, 0.77]
	Top (%)	7.39 [5.04, N/A]	4.69 [4.12, 6.20]	6.58 [6.00, 7.75]	1.64 [1.45, 2.85]
	P50 (MPa)	7.78 [3.93, 271.40]	3.61 [2.99, 5.44]	3.21 [2.83, 3.78]	3.12 [2.39, 7.40]
Day 3	Bottom (%)	3.32 [3.02, 3.59]	1.29 [1.01, 1.54]	1.18 [0.56, 1.75]	0.60 [0.28, 0.88]
	Top (%)	8.65 [7.34, 16.59]	7.12 [6.38, 8.66]	9.43 [8.82, 10.40]	3.19 [2.85, 3.98]
	P50 (MPa)	4.66 [3.34, 14.40]	3.62 [3.10, 4.75]	3.12 [2.84, 3.46]	3.98 [3.50, 4.73]