

# Supplementary Materials: Ex Vivo Model to Assess the Exposure of Patients to Plasticizers from Medical Devices During Pre-CAR-T Cells' Apheresis

Raphaëlle Lautraite, Lise Bernard, Pascale Halle, Philip Chennell, Yoann Le Basle, Justyna Kanold and Valérie Sautou

**Table S1.** Raw data of the quantification of plasticizer in the different sections of the apheresis set, and in the anticoagulant bag.

MD	location of cut	sample detail for screening	Plasticizer identification	Plasticizer technical file	sample mass for identification	Major plasticizer Concentrations (µg/mL)	Major plasticizer Concentrations Mean (µg/mL)	SD	CV (%)	Major plasticizer content (g/100g)	Major plasticizer content Mean (g/100g)	SD	CV (%)	Minor plasticizer concentration (µg/mL)
Apheresis set	Inlet line (1)	section 1	10.4	DEHP	DEHP	11	165			37.5				
						10.7	165	156.166666	15.2997	9.80	38.5514036	892132.03255	5.50	/
						10	138.5			187	396	597	%	
		section 2	10.8	DEHP	DEHP	10.9	164	149.666666	12.4230	8.30	32.2727234	2872.81370	8.20	/
		section 3	10.5	DEHP +BBP	DEHP	10.7	143	149.666666	12.4230	8.30	32.2727234	2872.81370	8.20	/
	Orange	section 1	10.4	DEHP	DEHP	10.9	168.8			38.71559				< LOQ
						10.4	163.6	165.6	2.8	1.70	39.3269239	445541.93641	4.90	< LOQ
						10.2	164.4			40.29411				< LOQ
		section 2	10.9	DEHP	DEHP	10.5	175.2	173.333333	11.9102	6.90	41.71428	571	40.552563	61453
Apheresis set	Inlet line manifold (3)	section 1	10.4	DEHP	DEHP	10.9	168.8			38.71559				< LOQ
						10.4	163.6	165.6	2.8	1.70	39.3269239	445541.93641	4.90	< LOQ
						10.2	164.4			40.29411				< LOQ
		section 2	10.9	DEHP	DEHP	10.5	175.2	173.333333	11.9102	6.90	41.71428	571	40.552563	61453
	green	section 1	10.4	DEHP	DEHP	10.9	168.8			38.71559				< LOQ
						10.4	163.6	165.6	2.8	1.70	39.3269239	445541.93641	4.90	< LOQ
						10.2	164.4			40.29411				< LOQ
		section 2	10.9	DEHP	DEHP	10.5	175.2	173.333333	11.9102	6.90	41.71428	571	40.552563	61453
Apheresis set	Return line (6)	section 1	10.4	DEHP	DEHP	10.9	168.8			38.71559				< LOQ
						10.4	163.6	165.6	2.8	1.70	39.3269239	445541.93641	4.90	< LOQ
						10.2	164.4			40.29411				< LOQ
		section 2	10.9	DEHP	DEHP	10.5	175.2	173.333333	11.9102	6.90	41.71428	571	40.552563	61453
	Return line (6)	section 1	10.4	DEHP	DEHP	10.9	168.8			38.71559				< LOQ
						10.4	163.6	165.6	2.8	1.70	39.3269239	445541.93641	4.90	< LOQ
						10.2	164.4			40.29411				< LOQ
		section 2	10.9	DEHP	DEHP	10.5	175.2	173.333333	11.9102	6.90	41.71428	571	40.552563	61453

Manifold to channel (24)	white 1	10.4	DEHP	DEHP	10.8	128.2	121.75	2.10158 67	1.70 %	29.67592 593				< LOQ	/
					10.3	122				29.61165 049					
					10.5	119.5				28.4523829.059190.52541	07	719	%		
					10.6	124.5				29.36320 755					
	white 2	10.9	DEHP + DEHA (min)	DEHP	10.9	121.2	122.4	4.13279 566	3.40 %	27.79816 514				< LOQ	
					10.6	127				29.9528328.694771.12188	622	506	%	< LOQ	
					10.5	119				28.333333 333				< LOQ	
	pink	10.8	DEHP + DEHA (min)	DEHP	10.8	139.6	136.133333	8.92038 863	6.60 %	32.31481 481				< LOQ	
					10.4	126				30.2884631.989251.56364	411	124	%	< LOQ	
					10.7	142.8				33.36448 598				< LOQ	
	yellow w	10.2	DEHP + DEHA (min)	DEHP	10.5	108.2	119.066666	10.2256 214	8.60 %	25.76190 476				< LOQ	
					11	120.5				27.3863627.450931.72222	795	853	%	< LOQ	
					11	128.5				29.20454 545				< LOQ	
Return line manifold (8)	white	10	DEHP	DEHP	11	127	130.333333	7.57187 779	5.80 %	28.86363 636					/
					10.2	125				30.6372530.558931.65753	906	298	%		
					10.8	139				32.17592 593					
	green	10.2	DEHP	DEHP	10.6	130.2	131.133333	1.44683 563	1.10 %	30.70754 717					
					10.3	130.4				31.65048 544	31.12869	0.47945 944	1.50 %	/	
					10.7	132.8				31.02803 738					
Channel (18)	10.9	DEHP +BBP	NA												
	10.5	DEHP +BBP													
Anticoag ulant (AC) line (9)	10.2	DEHP + DEHA (min)	DEHP	10	124.4	134.266666	12.1232 559	9.00 %	31.1				< LOQ		
				10	130.6				32.65	32.446961.25780	97	484	%	< LOQ	
				11	147.8				33.59090 909				< LOQ		
Saline line (10)	section n 1	10.6	DEHP	DEHP	10.5	243	245.833333	26.3644 331	10.7 0%	57.85714 286					/
					10.4	273.5				65.7451959.435105.68771	182	77	%		
					10.1	221				54.70297 03					
	section n 2	11	DEHP + DEHA (min)	DEHP	10.1	145	144.333333	1.60727 513	1.10 %	35.89108 911	34.861421.55868	364	151	%	/
					10	142.5				35.625					

collect line (25)	10.6	DEHP + DEHA (min)	DEHP	11	145.5	103	6.42806347	6.20%	33.06818182					3.90%	< LOQ		
				10.3	106.2				25.77669903								
				10	95.6				24.98657097283								
				10.6	107.2				25.28301887								
Collection bag (24)	Tubulue	10.7	DEHP + DEHA (min)	?	BTHC	122.8333333	10.40833	8.50%	30.56818182					7.60%	< LOQ		
									11	134.5	26.2614628337872						
									10.9	114.5	28.18396226						
									10.6	119.5	28.18396226						
ACDA bag	Spike port	/	10.8	DEHP	DEHP ?	189.875	82.5775609	43.50%	48.19711538					44.40%	/		
									50								
									27.18446602								
									68.80733945								
									29.35779656								
									817								
									78.75								
									38.57142857								
									22.52358491								
Pocket	/	10.8	DEHP	DEHP		120	7.93725393	6.60%	29.71698113					6.00%	/		
									10.7	123	28.7383128294621						
									10.5	111	26.42857143						

**Table S2.** Raw data of the quantification of DEHP released in the water/ethanol.

Simulation Solution	Simulation Number	DEHP Concentration (µg/mL)	DEHP Concentration Mean (µg/mL)	SD	CV	DEHP dose (mg)	Exposure Dose (mg/kg/jour)	Concentration (µg/mL) Mean	SD
Water/ethanol	Simulation 1	17.16	17.13	0.7	4.09%	85.67	1.22	19.78	2.588753454
		17.82						Dose (mg) Mean	
		16.42						SD	
	Simulation 2	19.86	19.9	0.09	0.44%	99.5	1.42	98.9	12.94376727
		20						Exposure dose Mean	
		19.84						SD	
	Simulation 3	22.28	22.31	0.52	2.33%	111.53	1.59	1.41	0.184910961
		21.8							
		22.84							