

*Supplementary Materials*

# Comprehensive Evaluation of Odor-Causing VOCs from the Painting Process of the Automobile Manufacturing Industry and Its Sustainable Management

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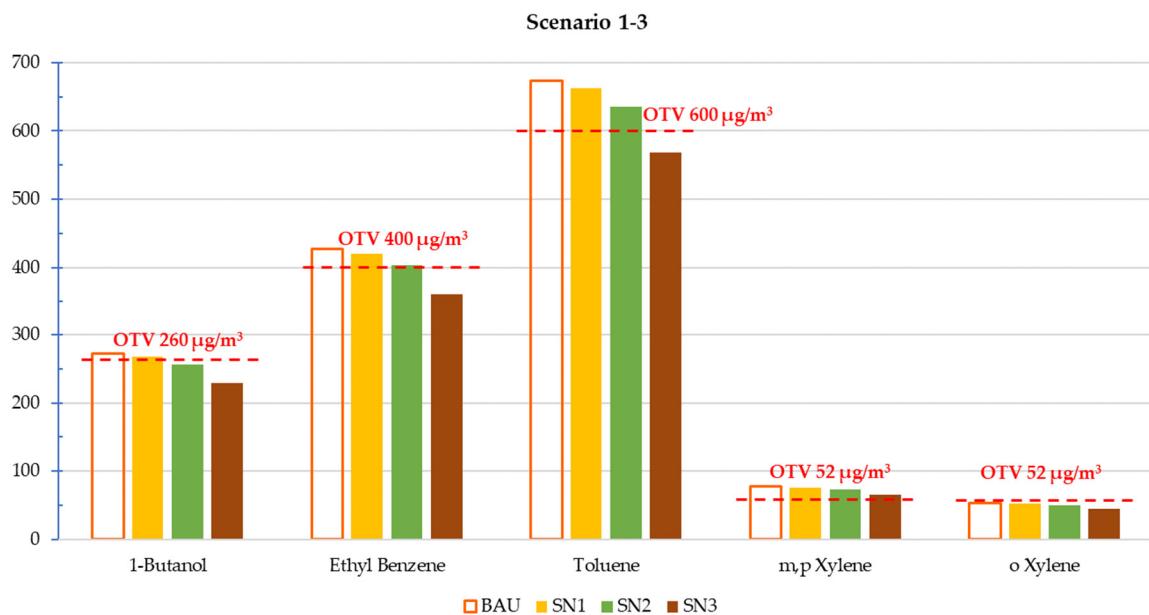
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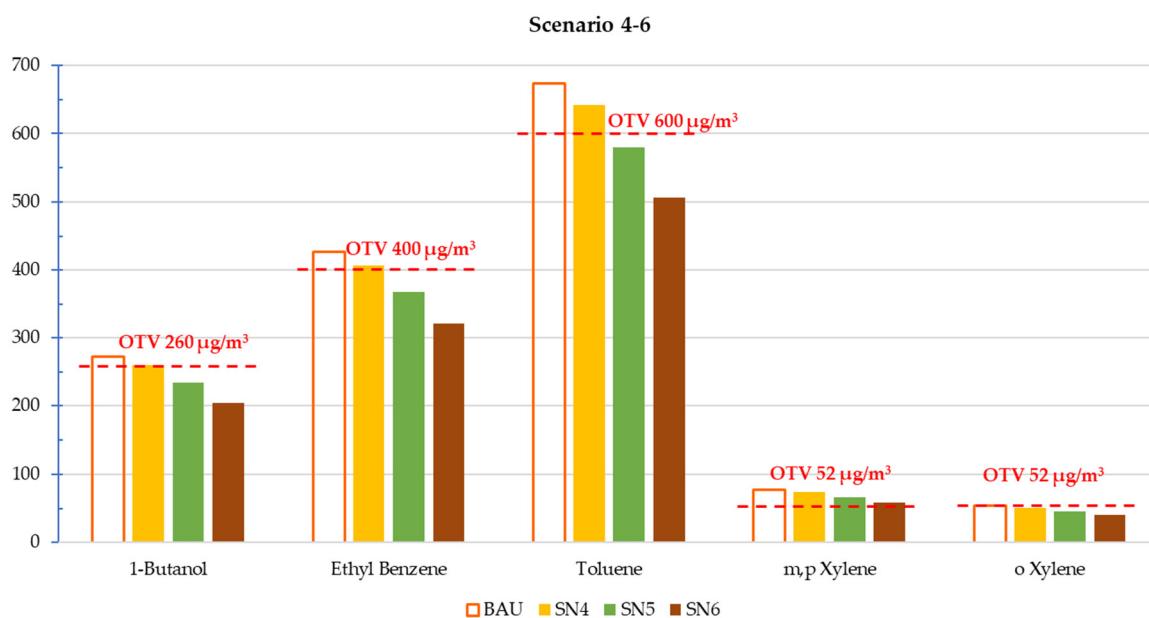
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**Table S1.** VOCs emissions from each unit of the wastewater treatment system.

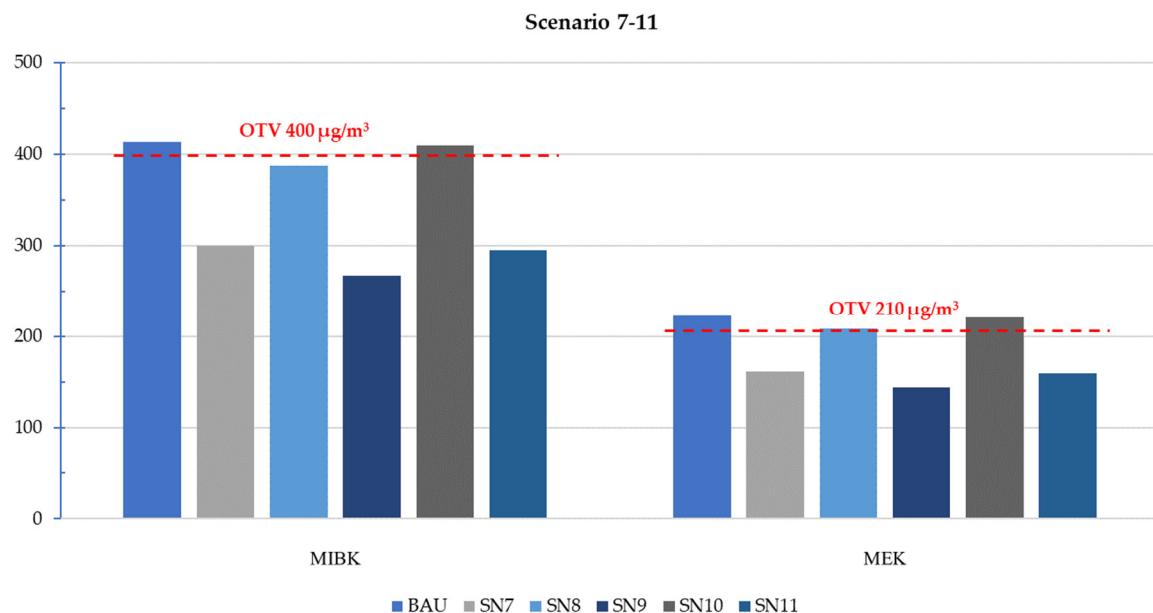
No.	Unit name	Methyl Ethyl Ketone			Methyl Isobutyl Ketone		
		Air emission rate (g/s)	Total emission (Mg/year)	Percent	Air emission rate (g/s)	Total emission (Mg/year)	Percent
0	Drop from pipe	$5.69 \times 10^{-4}$	$1.79 \times 10^{-2}$	2.3	$2.79 \times 10^{-3}$	$8.80 \times 10^{-2}$	9.2
1	RW	$7.75 \times 10^{-3}$	$2.44 \times 10^{-1}$	30.7	$1.03 \times 10^{-2}$	$3.25 \times 10^{-1}$	34.1
2	PA_1	$4.26 \times 10^{-3}$	$1.34 \times 10^{-1}$	16.9	$8.08 \times 10^{-3}$	$2.55 \times 10^{-1}$	26.8
3	RA	$3.64 \times 10^{-3}$	$1.15 \times 10^{-1}$	14.4	$3.64 \times 10^{-3}$	$1.15 \times 10^{-1}$	12.1
4	FC	$3.10 \times 10^{-3}$	$9.78 \times 10^{-2}$	12.3	$1.64 \times 10^{-3}$	$5.18 \times 10^{-2}$	5.4
5	SD_1	$1.28 \times 10^{-3}$	$4.02 \times 10^{-2}$	5.1	$1.42 \times 10^{-4}$	$4.47 \times 10^{-3}$	0.5
6	HD_1	$1.50 \times 10^{-3}$	$4.73 \times 10^{-2}$	5.9	$1.10 \times 10^{-3}$	$3.15 \times 10^{-2}$	3.6
7	PA_2	$1.60 \times 10^{-3}$	$5.04 \times 10^{-2}$	5.0	$1.10 \times 10^{-3}$	$3.45 \times 10^{-2}$	3.5
8	AR	$1.05 \times 10^{-3}$	$3.32 \times 10^{-2}$	4.2	$2.85 \times 10^{-4}$	$8.99 \times 10^{-3}$	0.9
9	SD_2	$3.40 \times 10^{-5}$	$1.07 \times 10^{-3}$	0.1	$5.44 \times 10^{-6}$	$1.72 \times 10^{-4}$	0.1
10	HD_2	$3.24 \times 10^{-5}$	$1.02 \times 10^{-3}$	0.1	$4.98 \times 10^{-6}$	$1.57 \times 10^{-4}$	0.1
11	FN	$6.50 \times 10^{-4}$	$2.05 \times 10^{-2}$	2.6	$5.30 \times 10^{-5}$	$1.67 \times 10^{-3}$	0.2
12	ST	$1.00 \times 10^{-4}$	$3.15 \times 10^{-3}$	0.4	$8.95 \times 10^{-6}$	$2.82 \times 10^{-4}$	0.1



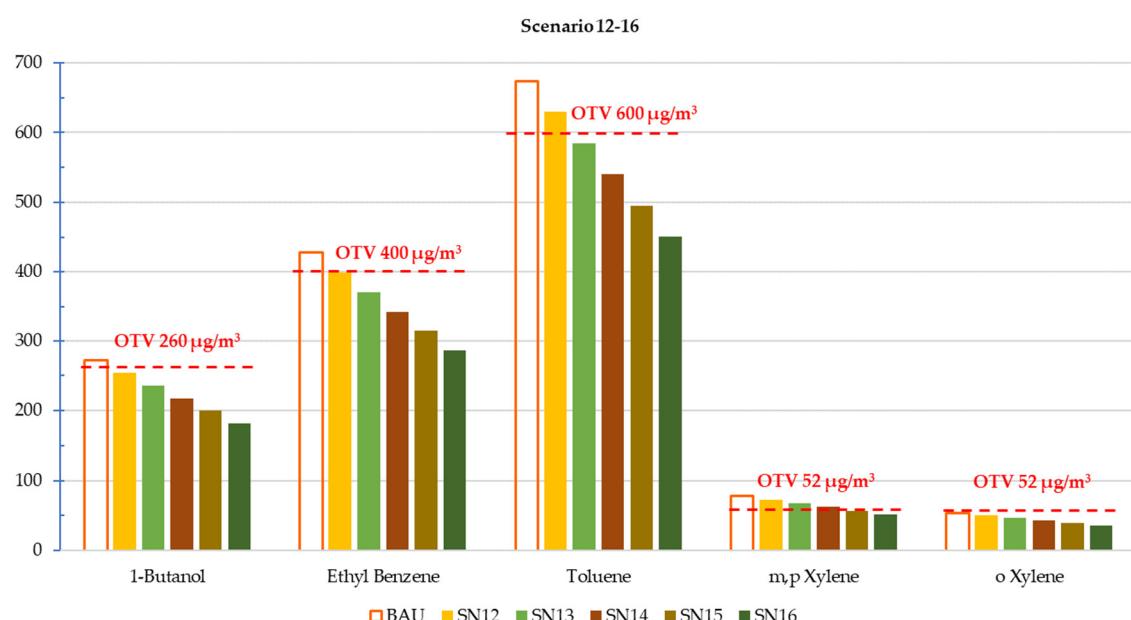
**Figure S1.** Peak concentration of target chemicals at the maximum ground level concentration (MGLC) after modification for Scenario 1 – 3.



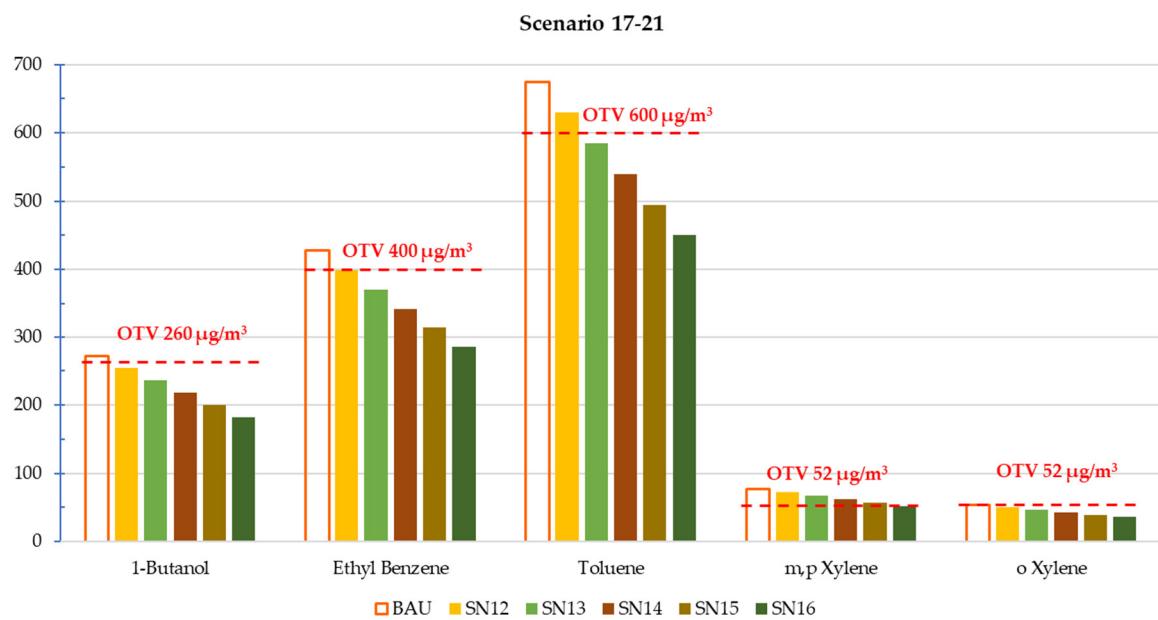
**Figure S2.** Peak concentration of target chemicals at the maximum ground level concentration (MGLC) after modification for Scenario 4 – 6.



**Figure S3.** Peak concentration of target chemicals at the maximum ground level concentration (MGLC) after modification for Scenario 7 – 11.



**Figure S4.** Peak concentration of target chemicals at the maximum ground level concentration (MGLC) after modification for Scenario 12 – 16.



**Figure S5.** Peak concentration of target chemicals at the maximum ground level concentration (MGLC) after modification for Scenario 17 – 21.