

CERTIFICATE

Certificate number SLRC20I_210122 21-01-25 09:30 A

Client	Organisation	SLR Consulting
	Contact	Richard Johnson
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	Telephone	0117 906 4280
Project	Project Code	SLRC20I_210122
	Lab technician	Scott Martin & George Dunmore
Investigated item	<p>Odour concentration in $\text{ou}_\text{E}/\text{m}^3$, determined by sensory measurement of odour concentration of an odour sample supplied in a sampling bag.</p> <p>The information included within this certificate relates to Olfasense UK's UKAS accredited odour concentration measurement procedures including pre-dilution. Sampling procedures and transit conditions are outside of the control of the laboratory and are not covered within the scope of Olfasense UK's odour concentration measurement accreditation.</p>	
Identification	The odour sample bags were labelled individually. The label showed the identification of the bag. This identification is referenced within the results.	
Method	<p>The odour concentration measurements were performed according to the European Standard EN13725:2003 'Air quality – Determination of odour concentration by dynamic olfactometry', and according to those parts as described in the internal procedure QD01: 'Procedure for olfactometry based on EN13725:2003'. The odour perception characteristic of the panel within the presentation series for the samples was analogous to that for the butanol calibration. The forced-choice method of presentation was used and at least two rounds are presented to determine the panel threshold. Sample bags are manufactured from PET, Nalophane and are not re-used.</p>	
Measuring range	The dilution range of the olfactometer is 1:49927 to 1:12.6. The lower limit of detection is $30 \text{ ou}_\text{E}/\text{m}^3$. If the concentration of the odour sample exceeded the higher dilution factors the odour sample may have been pre-diluted. If samples are pre-diluted in the laboratory this is specified under the column <i>Pre-dilution factor Z</i> in Table 1.	
Environment	The measurements were performed in an air and odour conditioned room, at a temperature of $T \leq 25^\circ\text{C}$ and with a fluctuation of less than $\pm 3^\circ\text{C}$. The CO_2 concentration is $\leq 0.15\%$. The laboratory is stationary and permanent.	
Dates and times	The measurement dates and times are specified together with the results in Table 1.	
Results	The measurement results are presented in Table 1 of this certificate.	
Uncertainty	The confidence limits for a value x for one measurement according to EN13725, with a cover factor $k = 2$ are: $x \cdot 2.40^{-1} \leq x \leq x \cdot 2.23$. The most recent interlaboratory comparison result is $A = 0.062$.	
Traceability	The measurements have been performed using standards for which the traceability to (inter)national standards has been demonstrated. The assessors are individually selected to comply with fixed criteria and are monitored in time to keep within the limits set. The results from the assessors are traceable to primary standards (PSM's) of n-butanol in nitrogen.	



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Table 1 Measurement results

Analysis file	Sample ID	Client Reference	Analysis result [ouE.m ⁻³]	Pre-dilution factor Z	Odour concentration [ouE.m ⁻³]	Date and time of sampling	Date and time of analysis	Number of valid panel members	Number of valid ITE values	Remarks
210121ARJ	21012202	Unshred 09	157	-	157	21-01-2021 10:26	22-01-2021 09:25	4	8	
210121BRJ	21012203	Unshred 08	400	-	400	21-01-2021 10:50	22-01-2021 09:34	4	8	
210121CRJ	21012204	Unshred 07	135	-	135	21-01-2021 11:09	22-01-2021 09:41	4	8	
210121DRJ	21012205	Shred 07	99	-	99	21-01-2021 11:29	22-01-2021 09:49	4	8	
210121ERJ	21012206	Shred 08	156	-	156	21-01-2021 11:45	22-01-2021 10:07	4	8	
210121FRJ	21012207	Shred 09	107	-	107	21-01-2021 11:58	22-01-2021 10:16	4	8	
210121GRJ	21012208	Food 07	396	-	396	21-01-2021 12:13	22-01-2021 10:24	4	8	
210121HRJ	21012209	Food 08	538	-	538	21-01-2021 12:26	22-01-2021 10:33	4	8	
210121IRJ	21012210	Food 09	1040	-	1040	21-01-2021 12:43	22-01-2021 10:42	4	8	
210121JRJ	21012211	AHP 01	145	-	145	21-01-2021 13:04	22-01-2021 10:50	4	8	
210121KRJ	21012212	AHP 02	115	-	115	21-01-2021 13:14	22-01-2021 11:09	4	8	
210121LRJ	21012213	AHP 03	--	-	--	21-01-2021 13:25	22-01-2021 11:18	4	-	The volume of sample was insufficient to complete a valid analysis in accordance to EN 13725. The estimated odour concentration based on 7 ITE values is 102 ouE/m3.

* Please note the client reference and date/time of sampling is data provided by the client

Certificate approved by:



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Amber Simm

Bristol, 25 January, 2021,



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