Institute of Public Health in Ostrava
Centre of Hygienic Laboratories
CAI Accredited Testing Laboratory No.1393 according to ČSN EN ISO/IEC 17025:2018
Partyzánské náměstí 2633/7, Moravská Ostrava, 702 00 Ostrava

TEST REPORT No. 60066/2020

Customer : Silverlab Healthcare
A4 Kimbult Industrial Park
9 Zeiss Road
2170 Honeydew
Jihoafrická republika

Set No. : 35222
Sample Received : 18.11.2020 10:15
Sample Analyzed : 18.11.2020 - 30.11.2020
Ref. No. : ZU/32460/2020
File No. : S-ZU/32460/2020
File code : 2.0.4

Sample information	
Sample No.:	**109150**
Sampling date:	not mentioned **Sampling time:** not mentioned
Sample name:	Product: 18 ppm Ionano silver, solution code M/Q610-419-xxx, Batch number: 2247, Manufacture date: 06/05/2020
Sample amount:	500 ml
Sample Type:	colloids
Sampled by:	customer
Mode of sampling:	not mentioned
Purpose:	on the request customers

Results - chemical analysis

Parameter	Value	Unit	Type	Method used	Uncertainty
Ag	32,5	mg/l	A	SOP OV 201 [1]	20%
mean particle size	81	nm	A	SOP OV 204 [1]	20%

Notice to sampling: The sampling itself is not a subject of accreditation.

Sample information	
Sample No.:	**109151**
Sampling date:	not mentioned **Sampling time:** not mentioned
Sample name:	Product: 18 ppm Ionano silver, solution code M/Q610-419-xxx, Batch number: 2298, Manufacture date: 29/09/2020
Sample amount:	500 ml
Sample Type:	colloids
Sampled by:	customer
Mode of sampling:	not mentioned
Purpose:	on the request customers

Results - chemical analysis

Parameter	Value	Unit	Type	Method used	Uncertainty
Ag	15,5	mg/l	A	SOP OV 201 [1]	20%
mean particle size	473	nm	A	SOP OV 204 [1]	20%

Notice to sampling: The sampling itself is not a subject of accreditation.

Sample information	
Sample No.:	**109152**
Sampling date:	not mentioned **Sampling time:** not mentioned
Sample name:	Product: 18 ppm Ionano silver, solution code M/Q610-419-xxx, Batch number: 2306, Manufacture date: 04/10/2020
Sample amount:	500 ml
Sample Type:	colloids
Sampled by:	customer
Mode of sampling:	not mentioned
Purpose:	on the request customers

Results - chemical analysis

Parameter	Value	Unit	Type	Method used	Uncertainty
Ag	19,4	mg/l	A	SOP OV 201 [1]	20%
mean particle size	5	nm	A	SOP OV 204 [1]	20%

Notice to sampling: The sampling itself is not a subject of accreditation.

Sample information	
Sample No.:	**109153**
Sampling date:	not mentioned **Sampling time:** not mentioned
Sample name:	Product: 18 ppm Ionano silver, solution code M/Q610-419-xxx, Batch number: 2322, Manufacture date: 25/10/2020
Sample amount:	500 ml
Sample Type:	colloids
Sampled by:	customer
Mode of sampling:	not mentioned
Purpose:	on the request customers

Results - chemical analysis

Parameter	Value	Unit	Type	Method used	Uncertainty
Ag	17,1	mg/l	A	SOP OV 201 [1]	20%
mean particle size	15	nm	A	SOP OV 204 [1]	20%

Notice to sampling: The sampling itself is not a subject of accreditation.

Sample information	
Sample No.:	**109154**
Sampling date:	not mentioned **Sampling time:** not mentioned
Sample name:	Product: 18 ppm Ionano silver, solution code M/Q610-419-xxx, Batch number: 2323, Manufacture date: 25/10/2020
Sample amount:	500 ml
Sample Type:	colloids
Sampled by:	customer
Mode of sampling:	not mentioned
Purpose:	on the request customers

Results - chemical analysis

Parameter	Value	Unit	Type	Method used	Uncertainty
Ag	17,2	mg/l	A	SOP OV 201 [1]	20%
mean particle size	77	nm	A	SOP OV 204 [1]	20%

Notice to sampling: The sampling itself is not a subject of accreditation.

Sample information	
Sample No.:	**109155**
Sampling date:	not mentioned **Sampling time:** not mentioned
Sample name:	Product: 18 ppm Ionano silver, solution code M/Q610-419-xxx, Batch number: 2324, Manufacture date: 04/10/2020
Sample amount:	500 ml
Sample Type:	colloids
Sampled by:	customer
Mode of sampling:	not mentioned
Purpose:	on the request customers

Results - chemical analysis

Parameter	Value	Unit	Type	Method used	Uncertainty
Ag	14,6	mg/l	A	SOP OV 201 [1]	20%
mean particle size	5	nm	A	SOP OV 204 [1]	20%

Notice to sampling: The sampling itself is not a subject of accreditation.

Method specification :

SOP OV 201 (ČSN EN ISO 17294-1, ČSN EN ISO 17294-2)

SOP OV 204 (metodika zpracovaná v rámci EU projektu NANoREG: „SOP for measurement of hydrodynamic Size-Distribution and Dispersion Stability by Dynamic Light Scattering (DLS), 2016)

Laboratory workplace:

(1) - analyses performed at Ostrava (Partyzánské náměstí 2633/7, Moravská Ostrava, 702 00 Ostrava)

Methods in TYPE column: "A" within the scope of accreditation

< the result is below the quantification limit, > the result is higher than the value presented

Results deal with tested samples only.

If the laboratory is not responsible for the sampling phase, the results refer to the sample as received.

Without a written consent of the laboratory, this Report can be reproduced only complete.

These expanded uncertainties of measurement are obtained by multiplying of standard uncertainty of measurement by extending coefficient k=2 (for confidence level 95%). Uncertainty of sampling not included.

If the sampling is not subject to accreditation, information about the sample, except the sample number, was provided by the customer and the laboratory is not responsible for this information.

Checked by: Lach Karel, Ing. CSc.
Completed by: Lach Karel, Ing. CSc.
Number of pages: 3
Date: 30.11.2020

Mgr. Ivona Smolová
Deputy Head of Hygienic Laboratories Center

Zdravotní ústav se sídlem v Ostravě
Centrum hygienických laboratoří
Zkušební laboratoř akreditovaná ČIA č.1393
www.zuova.cz

End of protocol

Size Distribution Report by Number

Sample Details

Sample Name: 109150 35222 2020 M/Q610-419 Batch 2247 avg

SOP Name: nanoAg.sop

General Notes: Average result created from record number(s): 1 2 3 4

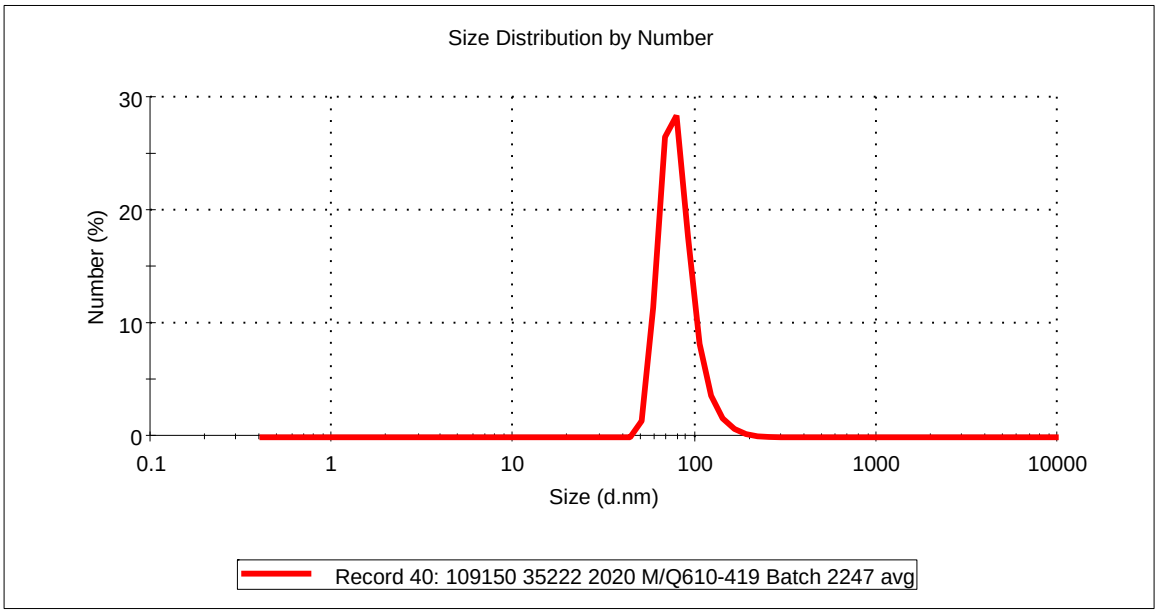
File Name:	Silverlab_Healthcare.dts	**Dispersant Name:**	Water
Record Number:	40	**Dispersant RI:**	1.330
Material RI:	0.14	**Viscosity (cP):**	0.8872
Material Absorbtion:	3.99	**Measurement Date and Time:**	27. listopadu 2020 10:55:20

System

Temperature (℃):	24.9	**Duration Used (s):**	80
Count Rate (kcps):	125.0	**Measurement Position (mm):**	4.65
Cell Description:	Disposable sizing cuvette	**Attenuator:**	9

Results

	Size (d.nm):	% Number
Peak 1:	81.43	100.0
Peak 2:	0.000	0.0
Peak 3:	0.000	0.0



Size Distribution Report by Number

Sample Details

Sample Name: 109151 35222 2020 M/Q610-419 Batch 2298 avg

SOP Name: nanoAg.sop

General Notes: Average result created from record number(s): 8 9 10 11

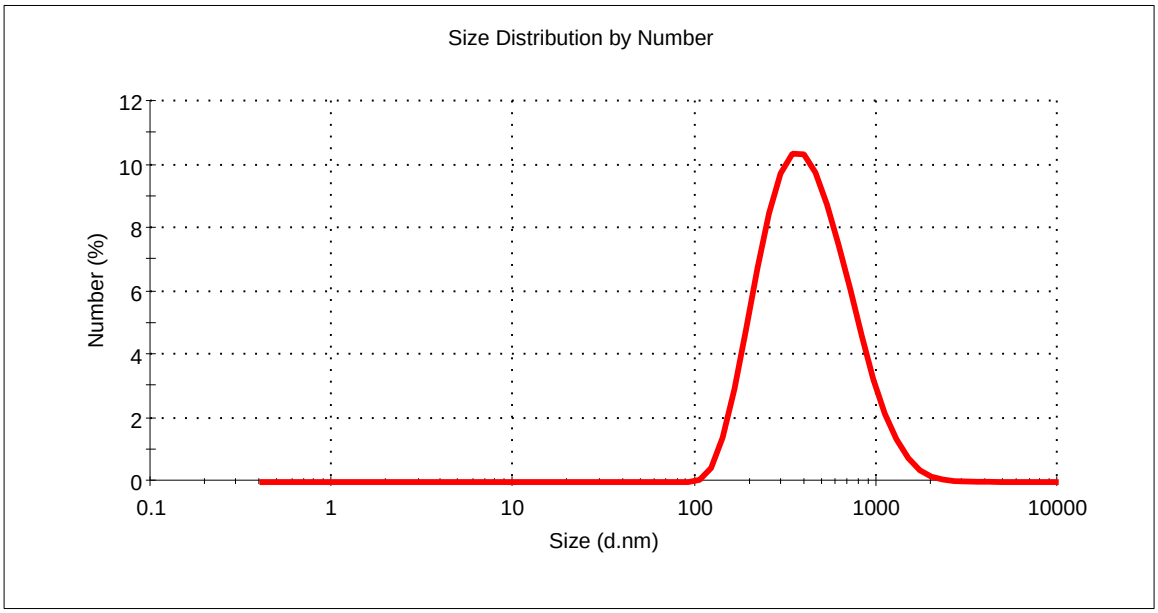
File Name:	Silverlab_Healthcare.dts	**Dispersant Name:**	Water
Record Number:	41	**Dispersant RI:**	1.330
Material RI:	0.14	**Viscosity (cP):**	0.8872
Material Absorbtion:	3.99	**Measurement Date and Time:**	27. listopadu 2020 10:55:55

System

Temperature (℃):	25.0	**Duration Used (s):**	70
Count Rate (kcps):	217.9	**Measurement Position (mm):**	1.25
Cell Description:	Disposable sizing cuvette	**Attenuator:**	10

Results

	Size (d.nm):	% Number
Peak 1:	473.3	100.0
Peak 2:	0.000	0.0
Peak 3:	0.000	0.0



Size Distribution Report by Number

Sample Details

Sample Name: 109152 35222 2020 M/Q610-419-xxx Batch2306 avg

SOP Name: nanoAg.sop

General Notes: Average result created from record number(s): 12 13 14 15

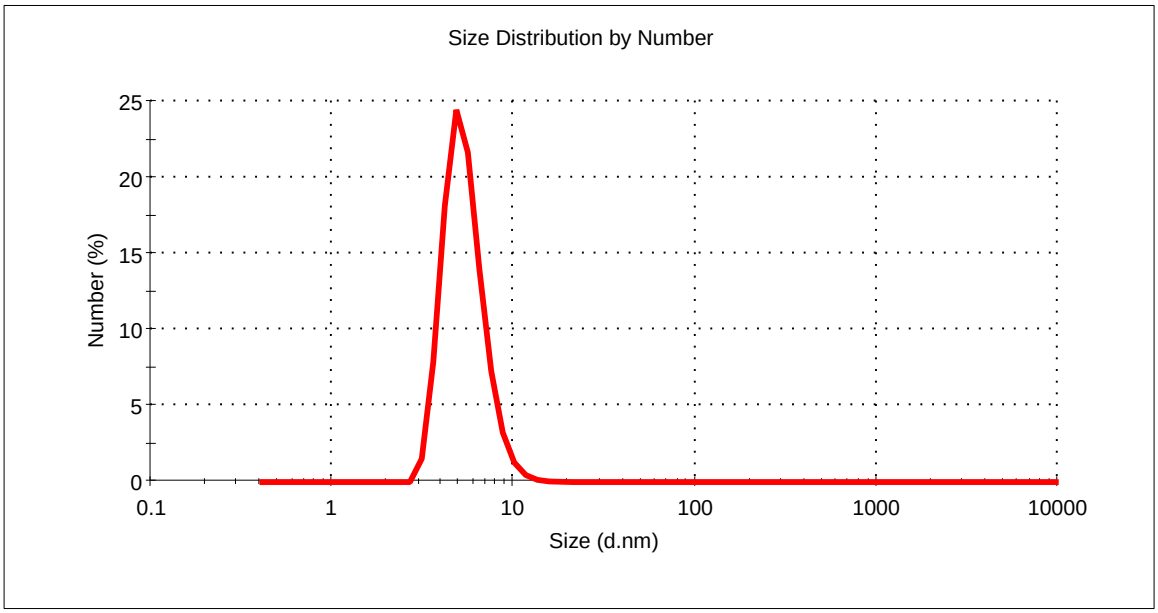
File Name:	Silverlab_Healthcare.dts	**Dispersant Name:**	Water
Record Number:	45	**Dispersant RI:**	1.330
Material RI:	0.14	**Viscosity (cP):**	0.8872
Material Absorbtion:	3.99	**Measurement Date and Time:**	27. listopadu 2020 10:58:48

System

Temperature (℃):	24.9	**Duration Used (s):**	60
Count Rate (kcps):	430.6	**Measurement Position (mm):**	0.85
Cell Description:	Disposable sizing cuvette	**Attenuator:**	6

Results

	Size (d.nm):	% Number
Peak 1:	5.444	100.0
Peak 2:	0.000	0.0
Peak 3:	0.000	0.0



Size Distribution Report by Number

Sample Details

Sample Name: 109153 35222 2020 M/Q610-419-xxx Batch2322 avg

SOP Name: nanoAg.sop

General Notes: Average result created from record number(s): 18 19 20 21 22 23

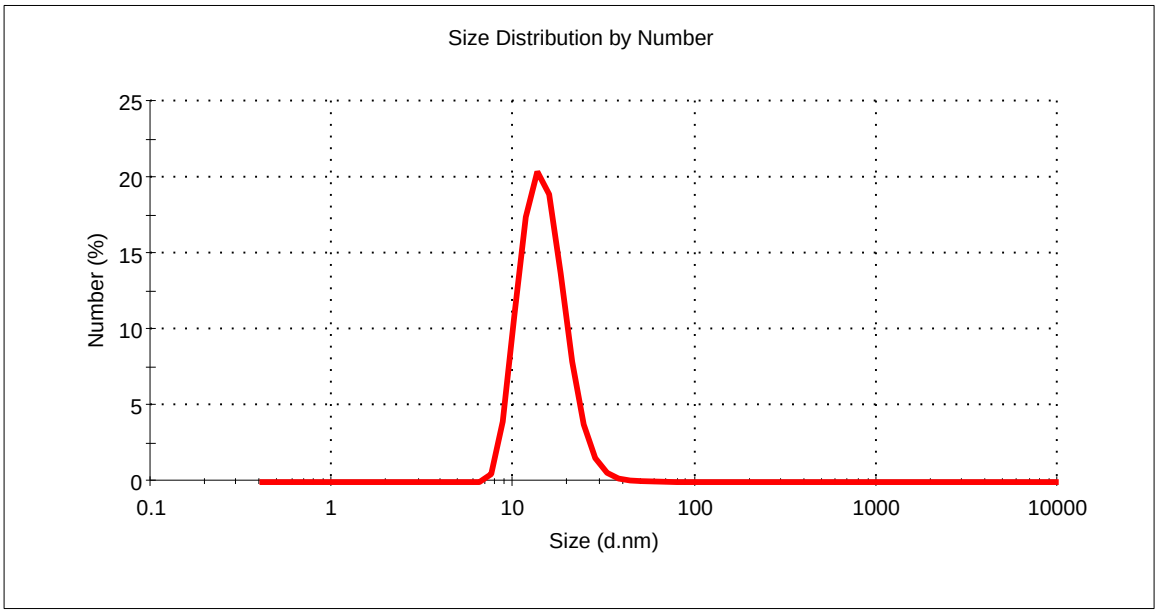
File Name:	Silverlab_Healthcare.dts	**Dispersant Name:**	Water
Record Number:	42	**Dispersant RI:**	1.330
Material RI:	0.14	**Viscosity (cP):**	0.8872
Material Absorbtion:	3.99	**Measurement Date and Time:**	27. listopadu 2020 10:56:45

System

Temperature (℃):	24.9	**Duration Used (s):**	60
Count Rate (kcps):	347.6	**Measurement Position (mm):**	4.65
Cell Description:	Disposable sizing cuvette	**Attenuator:**	8

Results

	Size (d.nm):	% Number
Peak 1:	15.16	100.0
Peak 2:	0.000	0.0
Peak 3:	0.000	0.0



Size Distribution Report by Number

Sample Details

Sample Name: 109154 35222 2020 M/Q610-419-xxx Batch 2323 avg

SOP Name: nanoAg.sop

General Notes: Average result created from record number(s): 24 25 26 27

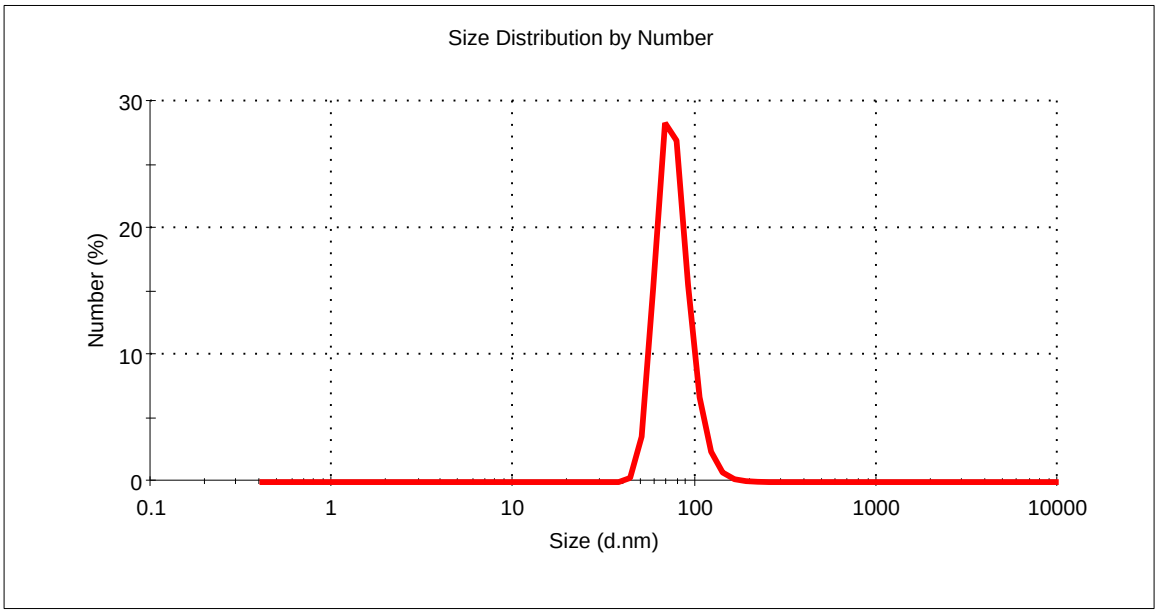
File Name:	Silverlab_Healthcare.dts	**Dispersant Name:**	Water
Record Number:	43	**Dispersant RI:**	1.330
Material RI:	0.14	**Viscosity (cP):**	0.8872
Material Absorbtion:	3.99	**Measurement Date and Time:**	27. listopadu 2020 10:57:08

System

Temperature (℃):	25.0	**Duration Used (s):**	60
Count Rate (kcps):	325.2	**Measurement Position (mm):**	4.65
Cell Description:	Disposable sizing cuvette	**Attenuator:**	8

Results

	Size (d.nm):	% Number
Peak 1:	77.17	100.0
Peak 2:	0.000	0.0
Peak 3:	0.000	0.0



Size Distribution Report by Number

Sample Details

Sample Name: 109155 35222 2020 M/Q610-419-xxx Batch 2324 avg

SOP Name: nanoAg.sop

General Notes: Average result created from record number(s): 28 29 32 33 34 37 38

File Name:	Silverlab_Healthcare.dts	**Dispersant Name:**	Water
Record Number:	44	**Dispersant RI:**	1.330
Material RI:	0.14	**Viscosity (cP):**	0.8872
Material Absorbtion:	3.99	**Measurement Date and Time:**	27. listopadu 2020 10:58:01

System

Temperature (℃):	25.0	**Duration Used (s):**	60
Count Rate (kcps):	508.6	**Measurement Position (mm):**	0.85
Cell Description:	Disposable sizing cuvette	**Attenuator:**	6

Results

	Size (d.nm):	% Number
Peak 1:	5.441	100.0
Peak 2:	0.000	0.0
Peak 3:	0.000	0.0