***In vitro* intestinal toxicity of commercially available spray disinfectant products advertised to contain colloidal silver**

**Table 1. Consumer product silver concentration Total Claimed, Total Measured and Soluble (Filtrate)**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Product Total Ag Claimed Total Ag Measured Filtrate (soluble Ag)

(mg/L) (mg/L) (mg/L)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1 120 18.9 ± 0.9 18.6 ± 0.5

2 500 960.8 ± 28.6 4.9 ± 0.1

3 NR 6.0 ± 1.1 BDL

4 NR 6.1± 0.1 BDL

5 NR 8.7 ± 0.7 0.2 ± 0.1

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NR Not Reported

BDL Below Detection Limit

**Table 2. Hydrodynamic diameter, primary particle size for selected products**

**before and after treatment with Synthetic Stomach Fluid (SSF).**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hydrodynamic Diameter TEM Particle Diameter

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Product NTA Mean (nm) DLS\_Z-AVG (nm) PDI P-1 (nm) P-2 (nm)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1 184 ± 125 166 ± 31 0.43 2.3 30-200

1+ SSF 232 ± 57 180 ± 29 0.33 ND ND

2 77 ± 38 47 ± 0.6 0.48 4.5 20-40

2+ SSF 278 ± 120 715 ± 65 0.23 ND ND

3 199 ± 209 245 ± 11 0.29 15.5 15-30

3 + SSF 132 ± 180 ND ND ND ND

4 222 ± 177 220 ± 5.8 0.34 5.2 15-30

4 + SSF 63 ± 48 ND ND ND ND

5 200 ± 72 421 ± 40 0.43 ND 20-50

5 + SSF 311 ± 130 ND ND ND ND

ND Not Determined

**Table 3. Suggested Cause for Cellular Response**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Product Soluble Ag Sufficient Particulate Ag Sufficient Unexplained Response

to Cause Cell to Cause Cell Contribution from Product

Response Response Matrix

(mg/L after 1:5) (mg/L after 1:5) (mg/L after 1:5)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1 Yes (3.7) No (1.6) No

2 No (1.0) Yes (191) No

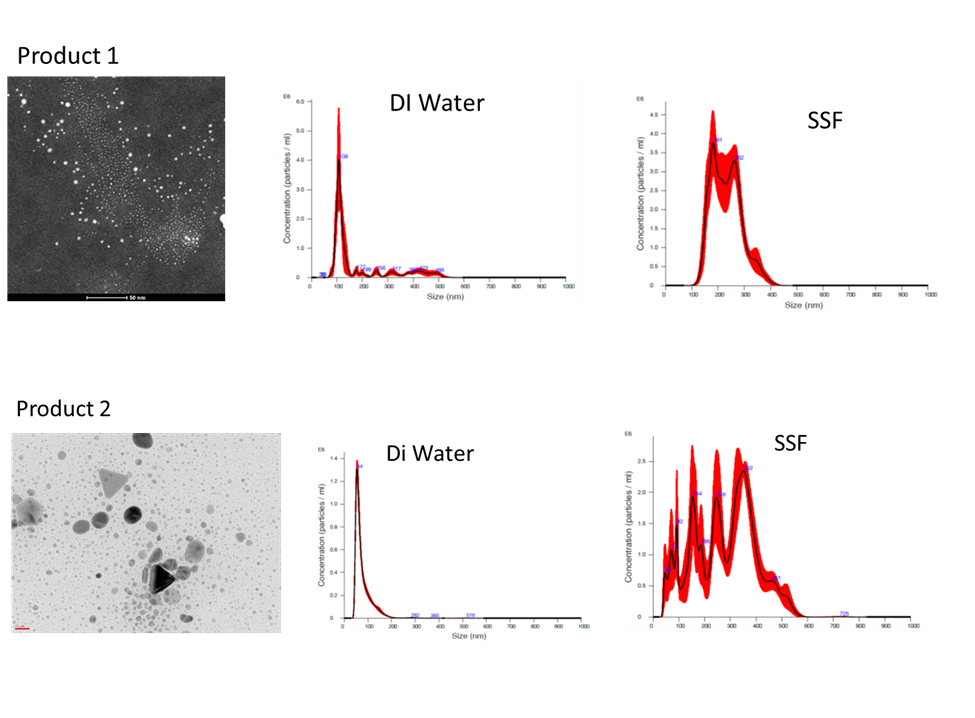
3 No (BDL) No (1.2) Yes

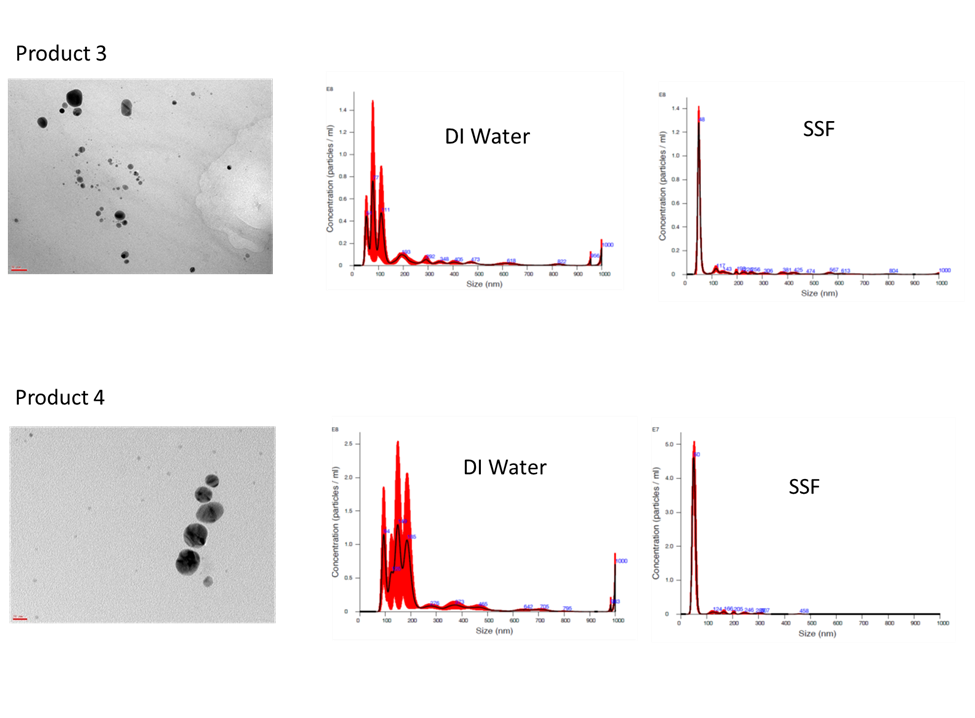
4 No (BDL) No (1.2) Yes

5 No (BDL) No (4.3) Yes

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BDL Below Detection Limit





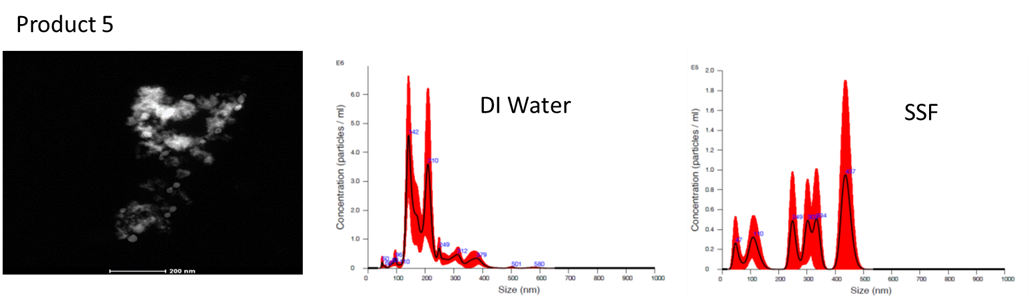


Fig. 1

Table S-1. Characteristics of Colloidal Silver Product Suspensions

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Product pH Cl- (ppm) S (ppm)

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1 6.6 BDL 27.9

2 7.9 39.8 40.4

3 10.6 25.1 BDL

4 10.0 25.3 BDL

5 2.5 10.6 9.8

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BDL Below Detection Limit

Table S-2. Estimated Total Ag Doses from Recommended Product Use

Product Product Application Total Measured Ag Recommended Dose Dose/Day (External, Internal) (mg/L) (mL) (ug Ag)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1 Internal 18.9 0.4 7.6

2 Both 961 1 961

3 External 6.0 Light Spray ND

4 External 6.1 Light Spray ND

5 External 8.7 Hard Surface Spray ND

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ND Not Determined

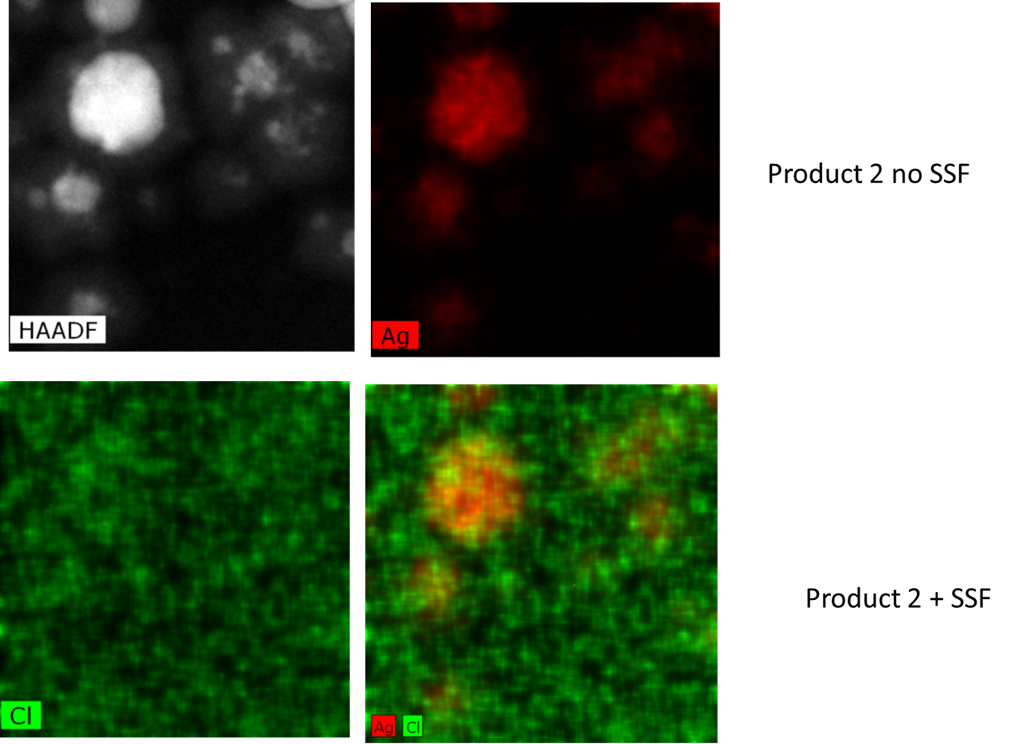


Fig. S-1