

## Safety Data Sheet

Product Name: **HighQuant**

Silver, dispersion - nanospheres 10 nm avg. particle size, 0.04 mg/ml in aqueous buffer, contains citrate as stabilizer

Product Number: **AGNS010**

Storage Temperature: 4 - 12 °C

Formula Weight: 107.87 g/mol **Ag**

---

### 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers Product name: Silver, dispersion

Product Number: AGNS020 Brand : Phornano, HighQuant AG

1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses :  
Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet Company: Phornano Holding GmbH,  
Kleinengersdorferstraße 24, 2100 KORNEUBURG, AUSTRIA

Telephone : +43 660 323 0447

1.4 Emergency telephone number: +43 1 406 43 43 Vergiftungsinformationszentrale (VIZ)

### 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements:

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: none

## Safety Data Sheet

Product Name: **HighQuant**

Silver, dispersion - nanospheres 10 nm avg. particle size, 0.04 mg/ml in aqueous buffer, contains citrate as stabilizer

Product Number: **AGNS010**

Storage Temperature: 4 - 12 °C

Formula Weight: 107.87 g/mol **Ag**

---

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Silver

3.2 Mixtures Molecular weight : 107.87 g/mol

No components need to be disclosed according to the applicable regulations.

### 4. FIRST AID MEASURES

4.1 Description of first aid measures:

If inhaled If breathed in: Move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Flush eyes with water as a precaution.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed:

No data available

## Safety Data Sheet

Product Name: **HighQuant**

Silver, dispersion - nanospheres 10 nm avg. particle size, 0.04 mg/ml in aqueous buffer, contains citrate as stabilizer

Product Number: **AGNS010**

Storage Temperature: 4 - 12 °C

Formula Weight: 107.87 g/mol **Ag**

---

### 5. FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture: No data available

5.3 Advice for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information: No data available

### 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid breathing vapors, mist or gas. For personal protection, see section 8.

6.2 Environmental precautions:

No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up:

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections: For disposal, see section 13.

## Safety Data Sheet

Product Name: **HighQuant**

Silver, dispersion - nanospheres 10 nm avg. particle size, 0.04 mg/ml in aqueous buffer, contains citrate as stabilizer

Product Number: **AGNS010**

Storage Temperature: 4 - 12 °C

Formula Weight: 107.87 g/mol **Ag**

---

### 7. HANDLING AND STORAGE

7.1 Precautions for safe handling: For precautions, see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature 4 - 12 °C Store in the dark. Air and light sensitive. Handle and store under inert gas. Storage class (TRGS 510): 12: Non Combustible Liquids

7.3 Specific end use(s): Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: Components with workplace control parameters; Contains no substances with occupational exposure limit values.

8.2 Exposure controls: Appropriate engineering controls; General industrial hygiene practice.

Personal protective equipment Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection Impervious clothing; The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection Respiratory protection not required. For nuisance exposures, use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved

## Safety Data Sheet

Product Name: **HighQuant**

Silver, dispersion - nanospheres 10 nm avg. particle size, 0.04 mg/ml in aqueous buffer, contains citrate as stabilizer

Product Number: **AGNS010**

Storage Temperature: 4 - 12 °C

Formula Weight: 107.87 g/mol **Ag**

---

under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure; No special environmental precautions required.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

- a) Appearance Form: liquid
- b) Odour: No data available
- c) Odour Threshold: No data available
- d) pH: 6 (typical)
- e) Melting point/freezing point No data available/0°C
- f) Initial boiling point and boiling range: 100°C/No data available
- g) Flash point: No data available
- h) Evaporation rate: No data available
- i) Flammability (solid, gas): No data available
- j) Upper/lower flammability or explosive limits No data available
- k) Vapour pressure: No data available
- l) Vapour density: No data available
- m) Relative density 0.986 g/cm<sup>3</sup>
- n) Water solubility: No data available

## Safety Data Sheet

Product Name: **HighQuant**

Silver, dispersion - nanospheres 10 nm avg. particle size, 0.04 mg/ml in aqueous buffer, contains citrate as stabilizer

Product Number: **AGNS010**

Storage Temperature: 4 - 12 °C

Formula Weight: 107.87 g/mol **Ag**

---

o) Partition coefficient: octanol/water No data available

p) Auto-ignition temperature: No data available

q) Decomposition temperature: No data available

r) Viscosity: No data available

s) Explosive properties: No data available

t) Oxidizing properties: No data available

9.2 Other safety information: No data available

### 10. STABILITY AND REACTIVITY

10.1 Reactivity: No data available

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: No data available

10.4 Conditions to avoid: No data available

10.5 Incompatible materials: No data available

10.6 Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions. - Silver/silver oxides  
Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.  
Other decomposition products - No data available  
In the event of fire: see section 5

## Safety Data Sheet

Product Name: **HighQuant**

Silver, dispersion - nanospheres 10 nm avg. particle size, 0.04 mg/ml in aqueous buffer, contains citrate as stabilizer

Product Number: **AGNS010**

Storage Temperature: 4 - 12 °C

Formula Weight: 107.87 g/mol **Ag**

---

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects:

Acute toxicity: No data available

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure: No data available

## Safety Data Sheet

Product Name: **HighQuant**

Silver, dispersion - nanospheres 10 nm avg. particle size, 0.04 mg/ml in aqueous buffer, contains citrate as stabilizer

Product Number: **AGNS010**

Storage Temperature: 4 - 12 °C

Formula Weight: 107.87 g/mol **Ag**

---

Aspiration hazard: No data available

Additional Information RTECS: Not available

May cause argyria (a slate-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver).

### 12. ECOLOGICAL INFORMATION

12.1 Toxicity: No data available

12.2 Persistence and degradability: No data available

12.3 Bioaccumulative potential: No data available

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects: No data available

### 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Product Offer surplus and non-recyclable solutions to a licensed disposal company. Contaminated packaging: Dispose of as unused product.

### 14. TRANSPORT INFORMATION DOT (US): Not dangerous goods



## Safety Data Sheet

Product Name: **HighQuant**

Silver, dispersion - nanospheres 10 nm avg. particle size, 0.04 mg/ml in aqueous buffer, contains citrate as stabilizer

Product Number: **AGNS010**

Storage Temperature: 4 - 12 °C

Formula Weight: 107.87 g/mol **Ag**

---

IMDG: Not dangerous goods

IATA: Not dangerous goods

15. REGULATORY INFORMATION SARA 302 Components No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. SARA 311/312 Hazards: No SARA Hazards Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components:

Water

CAS-No. 7732-18-5

Revision Date

Silver 7440-22-4 1993-04-24

New Jersey Right To Know Components:

Water

CAS-No. 7732-18-5

Revision Date

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## Safety Data Sheet

Product Name: **HighQuant**

Silver, dispersion - nanospheres 10 nm avg. particle size, 0.04 mg/ml in aqueous buffer, contains citrate as stabilizer

Product Number: **AGNS010**

Storage Temperature: 4 - 12 °C

Formula Weight: 107.87 g/mol **Ag**

---

### 16. OTHER INFORMATION HMIS Rating:

Health hazard: 0

Chronic Health Hazard: 0

Flammability: 0

Physical Hazard: 0

NFPA Rating Health hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0

Further information Copyright 2020 Phornano Holding GmbH. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Phornano Holding GmbH and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.phornano.com](http://www.phornano.com) and/or the quotation, invoice or packing slip for additional terms and conditions of sale.

Preparation Information Phornano Holding GmbH Product Safety +43 660 323 0447

Version: 2.2 Revision Date: February 17, 2020