

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifier: NanoScientifica Au Particles**CAS Number: 7440-57-5**

Relevant identified uses of the substance: Scientific research and development

Supplier details:

NanoScientifica Scandinavia AB
Organization number: 559254-6393
Utlandagatan 12
SE-412 61 Göteborg
Tel: +46 73 481 5693

Emergency telephone number (Sweden)
112 (for emergencies)
1177 (for medical advice)
11 414 (for non-emergency incidents)
113 13 (for information about none acute accidents and emergencies)

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Eye irritation (Category 2A), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H319 Causes serious eye irritation.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ eye protection/ face protection.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

3.2. Mixtures

Gold

Identification number(s):

CAS number: 7440-57-5/ EC number: 231-165-9

Water

Identification number(s):

CAS number: 7732-18-5/ EC number: 231-791-2

Hazardous components

Component: Palladium (Pd) nanoparticles

Classification: Eye Irrit. 2A; STOT SE 3;

H319

Concentration:

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

General notes:

i) If inhaled: Supply patient with fresh air. If breathing has stopped, provide artificial respiration. If breathing is difficult, give oxygen. Keep patient warm. Seek immediate medical advice.

ii) In case of skin contact: Immediately wash off with soap and copious amounts of water; rinse thoroughly. Seek immediate medical advice.

iii) in case of eye contact: Remove contacts if presents. Rinse opened eye for several minutes under running water. Consult a physician.

iv) if swallowed: Seek medical treatment. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

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

4.3. Indication of any immediate medical attention and special treatment needed: No data available

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media: *Suitable extinguishing agents:* Carbon dioxide, alcohol-resistant foam, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2. Special hazards arising from the substance or mixture: The product is not flammable. *If this product is involved in a fire, the following can be released:* Carbon monoxide and carbon dioxide

5.3. Advice for firefighters: *Protective equipment:* Wear self-contained respirator. Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures: Use personal protective equipment, chemical resistant gloves, chemical safety glasses. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources

6.2. Environmental precautions: Do not let product enter drains.

6.3. Methods and materials for containment and cleanup: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Prevention of secondary hazards: No special precautions required.

6.5. Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry, well-ventilated place and, away from light. Recommended storage between 2-8 °C. DO NOT FREEZE.

7.2.1. Requirements to be met by storerooms and receptacles: Store in a cool location.

7.2.2. Information about storage in one common storage facility: Do not store together with acids or bases. Store away from oxidizing agents. Store away from halogens. Store away from acid anhydrides.

7.2.3. Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well-sealed containers.

7.3. Specific end use(s)

No data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Components with workplace control parameters: Contains no substances with occupational exposure limit values

8.2. Exposure controls

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday

8.2.1. Personal protective equipment: Follow typical protective and hygienic practices for handling chemicals. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment.

8.2.1.1. Breathing equipment: Use suitable respirator when high concentrations are present.

8.2.1.1.1. Recommended filter device for short term use: The EPA mandates the use of full face respirators with minimum N100 grade cartridges if there is any risk of exposure to the dust. For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.1.1.2. Protection of hands: Impervious gloves. Inspect gloves prior to use. Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.

8.2.1.3. Eye/face protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

8.2.1.4. Skin protection: For any handling steps where the substance is in particulate form or in a suspension with pure water where the substance is not solubilized, the gloves must be comprised of material that successfully passes ASTM F-1671. For any handling steps where the substance is part of a carrier liquid, other than the aqueous suspension noted in the previous paragraph, gloves must be comprised of material that successfully passes ASTM F-739 (continuous liquid contact method). Gloves must be changed before they show degradation and before the designated breakthrough time for the carrier liquid (as determined by the ASTM F-739 testing or by the manufacturer). 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.

8.1.1.5. 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.

8.1.1.6. Control of environmental exposure: Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Red liquid

Odor: No data available

Odor threshold: No data available.

pH: No data available.

Melting point/Melting range: No data available.

Boiling point/Boiling range: No data available.

Sublimation temperature / start: No data available

Flash point: No data available.

Flammability (solid, gas): No data available.

Ignition temperature: No data available.

Decomposition temperature: No data available

Autoignition: No data available.

Danger of explosion: Product is not explosive.

Relative density: No data available.

Vapor density: No data available.

Evaporation rate: No data available.

Viscosity

i) Dynamic at 20 °C (68 °F): No data available.

ii) Kinematic: No data available.

Other information: No data available

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity: No data available

10.2. Chemical stability: Stable under recommended storage conditions.

10.3. Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.

10.4. Possibility of hazardous reactions: No data available

10.5. Conditions to avoid: No data available

10.6. Incompatible materials: Acids, Strong oxidizing agents, Halogens, Acid anhydrides

10.7. Hazardous decomposition products: Carbon monoxide and carbon dioxide.

Other decomposition products: no data available

In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

LD/LC50 values that are relevant for classification:

-Oral

LD50

No data available

-Dermal

LD50

No data available

-Inhalative

LC50/8H

No data available

Skin irritation or corrosion: May cause irritation

Eye irritation or corrosion: Causes serious eye irritation.

Sensitization: No sensitizing effects known.

Germ cell mutagenicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance.

Carcinogenicity

IARC-3: Not classifiable as to carcinogenicity to humans.

ACGIH A4: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals.

Reproductive toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.

Specific target organ system toxicity - repeated exposure: No effects known.

Specific target organ system toxicity - single exposure: Inhalation - May cause respiratory irritation.

Aspiration hazard: No effects known.

Subacute to chronic toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.

Additional toxicological information:

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity Aquatic 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. Additional ecological information: Do not allow undiluted product or large quantities to reach groundwater, water courses, or sewage systems. Avoid transfer into the environment.

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

12.7. Other adverse effects:

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

Products: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Recommendation: Consult official regulations to ensure proper disposal.

13.2. Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

13.3. Recommended cleansing agent:

Water, if necessary with cleansing agents.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.1 UN number

ADR/RID: -	IMDG: -	IATA: -
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14.2 UN proper shipping name

ADR/RID: -	IMDG: -	IATA: -
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14.3 Transport hazard class(es)

ADR/RID: -	IMDG: -	IATA: -
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14.4 Packing group

ADR/RID: -	IMDG: -	IATA: -
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14.5 Environmental hazards

ADR/RID: no	IMDG no	IATA: no
	Marine pollutant:	

14.6 Special precautions for user

No data available

SECTION 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) N° 1907/2006///1272/2008

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: 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

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Eye Irrit. Eye irritation

H319 Causes serious eye irritation.

HMIS Rating

Health hazard: 1

Chronic Health Hazard:

Flammability: 0
Physical Hazard 0

NFPA Rating

Health hazard: 1
Fire Hazard: 0
Reactivity Hazard: 0

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). 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. Nanoscientifica Scandinavia shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 2020. NANOSCIENTIFICA SCANDINAVIA. GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
