

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2026-02-10  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Palladium nitrate dihydrate  
Product Number : P294583  
Brand : aladdin  
CAS-No. : 32916-07-7

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

Oxidizing solids (Category 1), H271

Corrosive to metals (Category 1), H290

Acute toxicity, Oral (Category 4), H302

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

## 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

|      |                                                      |
|------|------------------------------------------------------|
| H290 | May be corrosive to metals                           |
| H302 | Harmful if swallowed                                 |
| H314 | Causes severe skin burns and eye damage              |
| H318 | Causes serious eye damage                            |
| H400 | Very toxic to aquatic life                           |
| H410 | Very toxic to aquatic life with long lasting effects |

Precautionary statement(s)

|                |                                                                                                          |
|----------------|----------------------------------------------------------------------------------------------------------|
| P210           | Keep away from heat, hot surface, sparks, open flames and other ignition sources.<br>- No smoking.       |
| P220           | Keep away from clothing and other combustible materials.                                                 |
| P221           | Take any precaution to avoid mixing with combustibles/...                                                |
| P234           | Keep only in original container.                                                                         |
| P260           | Do not breathe dust/fume/gas/mist/vapors/spray.                                                          |
| P264           | Wash hands [and ...] thoroughly after handling.                                                          |
| P270           | Do not eat, drink or smoke when using this product.                                                      |
| P273           | Avoid release to the environment.                                                                        |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.                               |
| P283           | Wear fire resistant or flame retardant clothing.                                                         |
| P310           | Immediately call a POISON CENTER or doctor/physician.                                                    |
| P330           | Rinse mouth.                                                                                             |
| P363           | Wash contaminated clothing before reuse.                                                                 |
| P390           | Absorb spillage to prevent material damage.                                                              |
| P391           | Collect spillage.                                                                                        |
| P301+P312      | IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.                                        |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.                                                       |
| P303+P361+P353 | IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower]. |
| P304+P340      | IF INHALED: Remove person to fresh air and keep 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. |
| P306+P360      | IF ON CLOTHING: Rinse Immediately contaminated CLOTHING and SKIN with plenty of water before removing clothes.                   |
| P370+P378      | In case of fire: Use ... to extinguish.                                                                                          |
| P371+P380+P375 | In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.                     |
| P405           | Store locked up.                                                                                                                 |
| P406           | Store in corrosive resistant/... container with a resistant inner liner.                                                         |
| P501           | Dispose of contents/container to an approved waste disposal plant.                                                               |

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

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                                                                                                                                                                                                   |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Synonyms         | : Pd(NO <sub>3</sub> ) <sub>2</sub> x n H <sub>2</sub> O; Palladium dinitrate hydrate; Palladium(II) nitrate hydrate; Palladous nitrate hydrate; Palladium modifier; Palladium(II) nitrate - nitric acid solution |
| Formula          | : Pd(NO <sub>3</sub> ) <sub>2</sub> ·2H <sub>2</sub> O                                                                                                                                                            |
| Molecular weight | : 266.46                                                                                                                                                                                                          |
| CAS No.          | : 32916-07-7                                                                                                                                                                                                      |
| EC-NO.           | : 681-918-4                                                                                                                                                                                                       |

| Component                   | Classification                                                                                                                                                                                           | Concentration  |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Palladium nitrate dihydrate | Ox. Sol. 1; Met. Corr. 1; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H271, H290, H302, H314, H318, H400, H410 basis M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 10 | ≥99.95% metals |

## 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.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Do NOT induce vomiting. 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**

no data available

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

no data available

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**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**

Dry powder Dry sand

**Unsuitable extinguishing media**

no data available

**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**

Use water spray to cool unopened containers.

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**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## 6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

## 6.4 Reference to other sections

For disposal see section 13.

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# 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 away from sources of ignition - No smoking.

## 7.2 Conditions for safe storage, including any incompatibilities

Sensitive to light, easy to absorb moisture, avoid light, and store with argon filling

## 7.3 Specific end use(s)

no data available

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# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

## 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.

### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses 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. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374

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derived from it.

**Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

no data available

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                   |
|-------------------------------------------------|-------------------|
| a) Appearance                                   | no data available |
| b) Odour                                        | no data available |
| c) Odour Threshold                              | no data available |
| d) pH                                           | no data available |
| e) Melting point/freezing point                 | no data available |
| f) Initial boiling point and boiling range      | 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                             | 1.118             |
| n) Water solubility                             | no data available |
| o) Partition coefficient: n-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 N                       | no data available |
| t) Oxidizing properties N                       | no data available |

### 9.2 Other safety information

no data available

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## SECTION 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

Amines, Bases, Aluminum, Brass, Copper, Corrodes steel, Iron, Organic materials, Reducing agents

### 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male and female - 200 - 2.000 mg/kg

#### Skin corrosion/irritation

no data available

#### Serious eye damage/eye irritation

no data available

#### Respiratory or skin sensitisation

no data available

#### Germ cell mutagenicity

no data available

#### Carcinogenicity

no data available

#### Reproductive toxicity

no data available

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**SECTION 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**

no data available

**12.6 Other adverse effects**

Very toxic to aquatic life with long lasting effects.

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**SECTION 13:****13.1 Disposal considerations****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals

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in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

**Contaminated packaging**

Dispose of as unused product.

## SECTION 14: Transport information

**DOT (US)**

UN number: 1477

Packing group: II

Class: 5.1

Proper shipping name: NITRATES,  
INORGANIC, N.O.S.

Reportable Quantity(RQ):no data  
available

Poison Inhalation Hazard:no data  
available

Environmental Hazards: no

**IMDG**

UN number: 1477

Packing group: II

EMS-No:no data available

Proper shipping name: NITRATES, INORGANIC, N.O.S.

**IATA**

UN number: 1477

Packing group: II

Class: 5.1

Proper shipping name: NITRATES, INORGANIC, N.O.S.

## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

## SECTION 16: Other information

**Prepared By**

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

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**Revision Summary**

SDS sections updated v1

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