

**Safety Data Sheet dated 21/9/2021, version 5**

---

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Identification of the substance

Trade name: Palladium Powder

Trade code: D006

CAS number: 7440-05-3

EC number: 231-115-6

REACH: The substance is not subject to registration as it is produced in amounts less than 1 ton/year

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

Recommended use:

Galvanic, base and lab chemistry

**1.3. Details of the supplier of the safety data sheet**

Company:

CABRO SPA - AREZZO

Road Setteponti 141

52100 - Italy

CABRO SPA

Phone n. +39 0575 984442

Office hours: 9-13 / 14.30-17.30

Competent person responsible for the safety data sheet:

info@cabro.it

**1.4. Emergency telephone number**

CABRO SPA

Phone n. +39 0575 984442

Office hours: 9-13 / 14.30-17.30

Poison Information Center - 24/24h Careggi Hospital (Florence) - Phone +39 055 7947819

Poison Information Center - 24/24h Foggia Hospital - Phone +39 0881-732326

Poison Information Center - 24/24h Bergamo Hospital - Phone +39 800 883300

---

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

EC regulation criteria 1272/2008 (CLP)

⚠ Danger, Flam. Sol. 1, Flammable solid.

⚠ Warning, Skin Irrit. 2, Causes skin irritation.

⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.

⚠ Warning, STOT SE 3, May cause respiratory irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

**2.2. Label elements**

Hazard pictograms:



Danger

Hazard statements:

H228 Flammable solid.

H315 Causes skin irritation.

# Safety Data Sheet

## Palladium Powder



H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

### Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash ... Thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...  
P312 Call a POISON CENTER/doctor/... if you feel unwell.  
P370+P378 In case of fire: Use ... to extinguish.

### Special Provisions:

None

### Contains

Palladium powder

### Special provisions according to Annex XVII of REACH and subsequent amendments:

None

### 2.3. Other hazards

vPvB Substances: None - PBT Substances: None

### Other Hazards:

No other hazards

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Identification of the substance  
Chemical characterization: Palladium Powder  
Trade code: D006  
CAS number: 7440-05-3  
EC number: 231-115-6

Qty	Name	Ident. Number	Classification
100 %	Palladium powder	CAS: 7440-05-3 EC: 231-115-6	⚠ 2.7/1 Flam. Sol. 1 H228 ⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.3/2 Eye Irrit. 2 H319 ⚠ 3.8/3 STOT SE 3 H335

### 3.2. Mixtures

N.A.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### In case of skin contact:

Immediately take off all contaminated clothing.  
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.  
Wash thoroughly the body (shower or bath).  
Remove contaminated clothing immediately and dispose off safely.  
After contact with skin, wash immediately with soap and plenty of water.

#### In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time,

then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

---

## **SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media:

In case of fire: Use ... to extinguish.

Extinguishing media which must not be used for safety reasons:

None in particular.

**5.2. Special hazards arising from the substance or mixture**

Do not inhale combustion gases

Burning produces heavy smoke.

**5.3. Advice for firefighters**

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

---

## **SECTION 6: Accidental release measures**

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

For non emergency personnel:

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

**6.3. Methods and material for containment and cleaning up**

Wash with plenty of water.

**6.4. Reference to other sections**

See also section 8 and 13

---

## **SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Avoid contact with skin and eyes, inhalation of vapours and mists.

Use localized ventilation system.  
Don't use empty container before they have been cleaned.  
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.  
See also section 8 for recommended protective equipment.  
Advice on general occupational hygiene:  
Contaminated clothing should be changed before entering eating areas.  
Do not eat or drink while working.

**7.2. Conditions for safe storage, including any incompatibilities**

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.  
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.  
Keep away from food, drink and feed.  
Incompatible materials:  
None in particular.  
Instructions as regards storage premises:  
Cool and adequately ventilated.

**7.3. Specific end use(s)**

None in particular

---

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

No occupational exposure limit available

DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

**8.2. Exposure controls**

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

---

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Properties	Value	Method:	Notes
Appearance and colour:	Powder, Dark grey	--	--
Odour:	odorless	--	--

# Safety Data Sheet

## Palladium Powder



Odour threshold:	N.A.	--	--
pH:	N.A.	--	--
Melting point / freezing point:	1555 °C	--	--
Initial boiling point and boiling range:	2970 °C	--	--
Flash point:	N.A.	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	N.A.	--	--
Solubility in water:	N.A.	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	N.A.	--	--
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

### 9.2. Other information

Properties	Value	Method:	Notes
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

---

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

Stable under normal conditions

### **10.2. Chemical stability**

Stable under normal conditions

### **10.3. Possibility of hazardous reactions**

None

### **10.4. Conditions to avoid**

Stable under normal conditions.

### **10.5. Incompatible materials**

Avoid contact with combustible materials. The product could catch fire.

### **10.6. Hazardous decomposition products**

None.

---

## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

Toxicological information of the substance:

Palladium Powder - CAS: 7440-05-3

#### a) acute toxicity

Not classified

Based on available data, the classification criteria are not met

#### b) skin corrosion/irritation

The product is classified: Skin Irrit. 2 H315

#### c) serious eye damage/irritation

The product is classified: Eye Irrit. 2 H319

#### d) respiratory or skin sensitisation

Not classified

Based on available data, the classification criteria are not met

#### e) germ cell mutagenicity

Not classified

Based on available data, the classification criteria are not met

#### f) carcinogenicity

Not classified

Based on available data, the classification criteria are not met

#### g) reproductive toxicity

Not classified

Based on available data, the classification criteria are not met

#### h) STOT-single exposure

The product is classified: STOT SE 3 H335

#### i) STOT-repeated exposure

Not classified

Based on available data, the classification criteria are not met

#### j) aspiration hazard

Not classified

Based on available data, the classification criteria are not met

---

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

Adopt good working practices, so that the product is not released into the environment.

Palladium Powder - CAS: 7440-05-3

Not classified for environmental hazards

Based on available data, the classification criteria are not met

---

- 12.2. Persistence and degradability  
N.A.
- 12.3. Bioaccumulative potential  
N.A.
- 12.4. Mobility in soil  
N.A.
- 12.5. Results of PBT and vPvB assessment  
vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects  
None

---

### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods  
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

---

### SECTION 14: Transport information



- 14.1. UN number  
ADR-UN Number: 3089  
IATA-UN Number: 3089  
IMDG-UN Number: 3089
- 14.2. UN proper shipping name  
ADR-Shipping Name: METAL POWDER, FLAMMABLE, N.O.S.  
IATA-Shipping Name: METAL POWDER, FLAMMABLE, N.O.S.  
IMDG-Shipping Name: METAL POWDER, FLAMMABLE, N.O.S.
- 14.3. Transport hazard class(es)  
ADR-Class: 4.1  
ADR - Hazard identification number: 40  
IATA-Class: 4.1  
IATA-Label: 4.1  
IMDG-Class: 4.1
- 14.4. Packing group  
ADR-Packing Group: II  
IATA-Packing group: II  
IMDG-Packing group: II
- 14.5. Environmental hazards  
ADR-Environmental Pollutant: No  
IMDG-Marine pollutant: No
- 14.6. Special precautions for user  
ADR-Subsidiary hazards: -  
ADR-S.P.: 552  
ADR-Transport category (Tunnel restriction code): 2 (E)  
IATA-Passenger Aircraft: 445  
IATA-Subsidiary hazards: -  
IATA-Cargo Aircraft: 448  
IATA-S.P.: A3 A803  
IATA-ERG: 3L  
IMDG-EmS: F-G,  
S-G  
IMDG-Subsidiary hazards: -

IMDG-Stowage and handling: Category B H1

IMDG-Segregation: SG17 SG25 SG26 SGG7 SGG15

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

N.A.

---

## **SECTION 15: Regulatory information**

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) 2015/830

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 40

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

### **15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out for the substance.

---

## **SECTION 16: Other information**

Full text of phrases referred to in Section 3:

H228 Flammable solid.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.



## Safety Data Sheet Palladium Powder



Hazard class and hazard category	Code	Description
Flam. Sol. 1	2.7/1	Flammable solid, Category 1
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,  
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van  
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.