

# Material Safety Data Sheet

## Palladium powder

Revision Date: 1/10/2018

Date Issued: 8/14/2019

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY / UNDERTAKING

<b>Product name</b>	Palladium powder
<b>Product code</b>	NM-0041
<b>CAS</b>	7440-05-3
<b>REACH No.</b>	A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
<b>Identified uses</b>	Laboratory chemicals, Manufacture of substances
<b>Supplier</b>	IoLiTec Ionic Liquids Technologies GmbH Salzstrasse 184 D – 74076 Heilbronn Germany
<b>Telephone</b>	+49 (0)7131-89839-0
<b>Fax</b>	+49 (0)7131-89839-109
<b>Emergency telephone</b>	+49 (0)176-84850874
<b>Email</b>	msds@iolitec.de

### 2 HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Flammable solids, Category 2, H228

Specific Target Organ Toxicity - Single exposure: Respiratory tract irritation, Category 3, H335

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### Classification (67/548/EEC or 1999/45/EC)

Flammable metal powder

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008, GHS)

Pictogram



Signal word

Danger

Hazard statement(s)

H228

Flammable solid.

H335

May cause respiratory irritation.

Precautionary statement(s)

P210

Keep away from heat/sparks/open flames/hot surfaces . - No smoking.

P261

Avoid breathing dust/fume/gas/mist/vapours/spray.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P370+378

In case of fire: Use sand or fire extinguisher class D for extinction

P422

Store contents under nitrogen or argon.

Caution - substance not yet tested completely.

Supplemental Hazard Statements none

#### Labelling (67/548/EEC or 1999/45/EC)

Hazard symbol(s)



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### R-phrases(s)

R11 Highly flammable.  
 R36/37/38 Irritating to eyes, respiratory system and skin.

### S-phrases(s)

S6 Keep under inert gas  
 S16 Keep away from sources of ignition - No smoking  
 S22 Do not breathe dust  
 S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

Caution - substance not yet tested completely.

### 3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	Contents	Health(Class)	Risk(R/No.)
Palladium	99.9%		Substance not yet fully tested!
Formula	Molecular Weight		
Pd	106.42 g/mol		

### 4 FIRST AID MEASURES

**General** Contaminated clothing should be removed and washed before being reused.

**Inhalation** Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/oxygen.

**Ingestion** Immediately rinse mouth and provide fresh air. Do not induce vomiting. Get medical attention immediately.

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<b>Skin</b>	Wash the skin immediately with soap and water. Get medical attention immediately.
<b>Eyes</b>	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

### 5 FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Use: Dry chemical powder. Do not use water.
<b>Special risks</b>	Flammable powder. Emission of toxic fumes under fire conditions possible.
<b>Protective measures in fire</b>	Wear self-contained breathing apparatus and protective clothing.

### 6 ACCIDENTAL RELEASE MEASURES

<b>Personal precautions during spill</b>	Wear protective clothing and avoid inhalation as well as skin or eye contact. Keep away from ignition sources.
<b>Precautions to protect environment</b>	Do not wash into water courses. Do not allow this material to be released to the environment without proper governmental permits.
<b>Spill cleanup methods</b>	Avoid contact with skin or inhalation of spillage, dust or vapor, Avoid dust formation. Collect and reclaim or dispose in sealed containers in license waste. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

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### 7 HANDLING AND STORAGE

#### Usage precautions

Keep away from heat, sparks and open flame.  
Do not use in confined spaces without adequate ventilation.

#### Storage precautions

Store in a tightly closed container in a cool, dry, well ventilated area.

#### Storage criteria

Chemical storage.  
Do not store together with oxidizing salts, acids. Store away from air/water.

### 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Personal protective equipment

##### 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).

##### 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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### 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.

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### Respiratory protection

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).

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Powder
<b>Color</b>	Black
<b>Odor/taste</b>	No characteristic odor.

## 10 STABILITY AND REACTIVITY

<b>Stability</b>	No particular stability concerns if handled according to specifications.
<b>Conditions to avoid</b>	Reacts violently with: oxidizing agents, acids, bases, halogens, interhalogens, alkali metals and water.
<b>Hazardous Decomposition Products</b>	Metal oxide fume.

## 11 TOXICOLOGICAL INFORMATION

### Acute toxicity

no data available

### Skin corrosion/irritation

no data available

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### **Serious eye damage/eye irritation**

no data available

### **Respiratory or skin sensitization**

no data available

### **Germ cell mutagenicity**

no data available

### **Carcinogenicity**

no data available

### **Reproductive toxicity**

no data available

### **Specific target organ toxicity - single exposure**

Inhalation - May cause respiratory irritation.

### **Specific target organ toxicity - repeated exposure**

no data available

### **Aspiration hazard**

no data available

### **Potential health effects**

#### **Ingestion**

May be harmful if swallowed.

#### **Inhalation**

May cause respiratory irritation.

#### **Skin**

May cause irritation.

#### **Eyes**

May cause irritation.

### **Additional Information**

RTECS: Not available

**Full Data on the toxicity of this product are not available. Hazardous properties cannot be excluded.**

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### 12 ECOLOGICAL INFORMATION

**Environmental hazards** Avoid washing into water courses. Avoid contaminating public drains or water supply.

### 13 DISPOSAL CONSIDERATIONS

**Disposal method** Contact specialist disposal companies.  
Dispose of in accordance with Local Authority requirements. Recover and reclaim or recycle, if practical.

### 14 TRANSPORT INFORMATION

**UN number: UN 3089**

**UN proper shipping name**

ADR/RID: METAL POWDER, FLAMMABLE, N.O.S.,  
Palladium

IMDG: METAL POWDER, FLAMMABLE, N.O.S.,  
Palladium

IATA: metall powder, flammable, n.o.s., palladium

**Transport hazard class(es)**

ADR/RID: 4.1

IMDG: 4.1

IATA: 4.1

**Packaging group**

ADR/RID: III

IMDG: III

IATA: III



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### Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 15 REGULATORY INFORMATION

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

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

no data available

### Chemical Safety Assessment

no data available

### Country specific information:

#### Germany

German Water Hazard Class

Substance No: 1443 non-hazardous to waters

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### 16 OTHER INFORMATION

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