Revision n. IV of 2021.09.28 Replaces revision n. III of 2019.10.04



#### 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

#### 1.1 Identificatore del prodotto

Chemical name PALLADIUM
C.A.S. Registry Number 7440-05-3
EINECS number 231-115-6
Molecular weight 106.4 g/mol

Brute formula Pd Product code 22 - 1222

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

silversmith goldsmith - galvanic - catalysts. Industrial use.

No use advised against in particular

#### 1.3 Information on the supplier of the safety data sheet

First name FAGGI ENRICO S.P.A.

Street address Via Majorana, 101/103 50019 Sesto Fiorentino FI

Telephone number 055311861 Fax number 055311791

Competent person responsible for

the safety data sheet lorenzo.magaldi@faggi.it

**1.4** Emergency telephone number Ph 0557947819 Poison Control Center of Florence

#### 1.5 Registration number

01-2120140175-66-XXXX

#### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance according to Regulation (EC) no. 1272/2008: Not dangerous

2.2 Label elements: not applicable

2.3 Other dangers Powdered palladium can become flammable. Inhalation of

• **Results of PBT and vPvB** dust can cause sensitization.

assessment PBT: not applicable vPvB: not applicable

#### 3. **COMPOSITION INFORMATION ON INGREDIENTS**

**3.1 Substance:** PALLADIUM

Numero CAS 7440-05-3 Numero EINECS 231-115-6

#### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

Inhalation: not applicable Ingestion: not applicable Skin contact: not applicable Contact with eyes: not applicable

#### **RECOMMENDATIONS:**

Need to see a doctor immediately
 Possibility of delayed effects following exposure
 Move the exposed individual from the place of exposure to open NO

Remove clothing and shoes of the exposed individual
 How to handle contaminated clothing
 For those providing first aid, wear PPE
 NO

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

In rare cases it can cause sensitization

Revision n. IV of 2021.09.28 Replaces revision n. III of 2019.10.04



4.3 Indication of any need to immediately consult a doctor and special treatments

#### 5. FIRE FIGHTING MEASURES

5.1 Fire fighting

**Suitable extinguishing media** CO2, powder or water spray extinguishers

**Unsuitable extinguishing** Do not use water on the molten metal due to the danger of

media violent development of steam.

5.2 Special hazards arising from the substance or mixture

In powder form it can be pyrophoric

5.3 Special recommendations for firefighters

Normal firefighting clothing, such as self-contained open-circuit compressed air breathing apparatus (EN137), flame retardant suit (EN469), flame retardant gloves (EN659) and firefighter boots (HOA29 or A30)

#### 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1. For those who do not intervene directly

None

6.1.2. For those who intervene directly

Collect the material avoiding the formation of dust.

6.2 Environmental precautions

None

- 6.3 Methods and materials for containment and cleaning up
  - 6.3.1. Recommendations on how to contain a spill

None

6.3.2. Recommendations on how to clean up a spill

None

*6.3.3.* Any other information

None

6.4 References to other sections

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#### 7. HANDLING AND STORAGE

- 7.1. Precautions for Safe Handling
  - 7.1.1. Recommendations that allow the substance or mixture to be handled safely, such as containment and prevention measures for fires and for the formation of aerosols and dusts

Avoid the formation of dust.

7.1.2. Generic recommendations on occupational hygiene

Do not eat, drink and smoke in work areas. Wash your hands after use. Remove contaminated clothing and protective equipment before entering eating areas

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Management of risks associated with explosive atmospheres, corrosive conditions, flammability hazards, incompatible substances and mixtures, evaporation conditions, potential sources of ignition

Avoid the formation of dust.

7.2.3. Containment of the effects of weather conditions, pressure, temperature, sunlight, humidity and vibrations

None

7.2.4. Conditions for keeping substances / mixtures intact

None

Revision n. IV of 2021.09.28 Replaces revision n. III of 2019.10.04



<i>7.2.5.</i>	Provisions relating to ventilation, specific design of storage rooms or containers,
	quantitative limits in storage conditions, compatibility of packaging

7.3. Specific end uses

Industrial use

8. EXPOSURE CONTROL / PERSONAL PROTECTION

8.1. Control parameters

None

8.2. Exposure controls

8.2.1. Appropriate technical controls

None

8.2.2. Individual protection measures, such as personal protective equipment

Eye / face protectionNot necessarySkin protection (hands)Not necessarySkin (body) protectionNot necessary

**Respiratory protection** Use a dust mask with P3 filters if dust is generated

during use

Thermal hazards None 8.2.3. Environmental exposure controls

Nobody

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Grey powder

Smell Odorless

Odor threshold Not applicable
pH Not applicable
Melting point / freezing point 1554.9 ° C
Initial boiling point and boiling range 2963 ° C

Flash point

Evaporation rate

Flammability (solid, gas)

Upper / lower flammability or explosive

Not inflammable
Not applicable

limits

Not applicable Vapor pressure Vapor density Not applicable Relative density (in solid form) 12.2 g / cm3 The solubility (ies) Insoluble Partition coefficient n-octanol / water Not applicable Self-ignition temperature Not applicable Decomposition temperature Not applicable Viscosity Not applicable **Explosive properties** Not explosive

Not oxidizing

9.2. Other information

None

10. STABILITY AND REACTIVITY'

10.1 Reactivity

No relevant information

10.2 Chemical stability

The material is stable

Oxidizing properties

10.3 Possibility of hazardous reactions

Revision n. IV of 2021.09.28 Replaces revision n. III of 2019.10.04



			Palladium is a catalytic substance and	can cause re	action in contact with a large		
			number of organic and inorganic substan				
	10.4		Conditions to avoid	ices with a ris	ok of the ana explosion.		
			Dust formation				
	10.5		Incompatible materials				
			None				
	10.6		Hazardous decomposition products				
			Nobody				
11.			TOXICOLOGICAL INFORMATION				
	11.1		Information on the hazard classes defined in Regulation (EC) No. 1272/2008				
			Acute toxicity		Non toxic		
			Skin corrosion / irritation		Not corrosive		
			Serious eye damage / eye irritation		Not corrosive		
			Respiratory or skin sensitization		Not sensitizing		
			Germ cell mutagenicity		Not mutagenic		
			Carcinogenicity		Not carcinogenic		
			Reproductive toxicity		Non toxic		
			Specific target organ toxicity (STOT) sing	gle	Not applicable		
			exposure	_			
			Specific target organ toxicity (STOT) rep	eated	Not applicable		
			exposure				
			Aspiration hazard		It can irritate the mucous		
					membranes in case of		
	11.2		Information on other because		inhalation of dust		
	11.2		Information on other hazards				
12.			None INFORMAZIONI ECOLOGICHE				
12.	12.1		Toxicity	The metal r	palladium is not toxic to		
	12.1		Toxicity	aquatic org			
	12.2		Persistence and degradability	Not applica			
	12.3		Bioaccumulation potential	Not applica			
	12.4		Mobility in soil	Not applica			
	12.5		Results of PBT and vPvB assessment	Not applicable			
	12.6		Properties of interference with the	Not applica			
			endocrine system				
	12.7		Other adverse effects				
13.			DISPOSAL CONSIDERATIONS				
	13.1.		Waste treatment methods				
			The product can be recovered				
14.			INFORMAZION ON TRASPORT				
	14.1		UN number or ID number		Not applicable		
	14.2		UN proper shipping name		Not applicable		
	14.3		Transport hazard class		Not applicable		
	14.4		Packing group		Not applicable		
	14.5		Environmental hazards		Not applicable		
	14.6		Special precautions for users		Not applicable		
4-	14.7 Bulk sea transport in accordance with IMO acts						
15.							
	15.1 Health, safety and environmental legislation and regulations Applicability						
	specific to the substance or mixture						

Revision n. IV of 2021.09.28 Replaces revision n. III of 2019.10.04

Reg. (EC) 1907/2006 / EC Reach	YES
Reg. (EC) 1272/2008 CLP and following changes and additions	YES
Reg. (CE) 2037/2000 "Substances that deplete the ozone	NO
layer"	
Reg. (EC) 850/2004 "Persistent organic pollutants"	NO
Reg. (EC) 689/2008 "export and import of dangerous	NO
chemicals"	
Substance listed in Annex I of Dir. 2012/18 / EU so-called	NO
Seveso	
Legislative Decree 81/2008 Consolidated Law on health and	NO
safety at work	
Directive 2014/103 / EU "Adr"	NO

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

A chemical safety assessment was not carried out

#### 16. OTHER INFORMATION

#### Changes compared to previous edition

Amendment to section 1

#### Key to abbreviations and acronyms

Day (EC) 4007/2006 / EC Daysh

ADR: European agreement concerning the international transport of dangerous goods by road

GHS: Globally Harmonized System of Classification and Labeling of Substances

**EINECS: European Inventory of Chemical Substances** 

CAS: Chemical Abstract Service

#### Main bibliographic references and data sources

ECHA database on registered substances and those under registration:

http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances

### Adequate training for workers in order to ensure the protection of human health and the environment

Training on DPI