

Safety data sheet
According to Regulation n. 1907/2006 and Regulation 878/2020
PALLADIUM ACETATE II



Revision 9 – 24.09.2024
Replaces revision 8 - 22.11.2022

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

1.1 Product identifier

Chemical name	Palladium Acetate (II)
C.A.S. Registry Number	3375-31-3
EINECS number	222-164-4
Molecular weight	224.5 g/mol
Brute formula	(CH ₃ COO) ₂ Pd
Product code	145

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

Recommended uses: Industrial use. Synthesis catalyst.
Uses advised against: none in particular

1.3 Details of the supplier of the safety data sheet

Name	FAGGI ENRICO S.P.A.
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 111 - Medical helpline operating in England, in Scotland (NHS 24) and in Wales (NHS Direct Wales).

1.5 Registration number Exempt under Article 6(1)

2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture according to Regulation (EC) n. 1272/2008

Hazard class	Category codes	Hazards indications
Skin sens.	1	H317
Eye Dam.	1	H318
Aquatic acute	1	H400
Aquatic chronic.	1	H410

2.2 Label elements:

Pictograms



Signal word

DANGER

Hazard statement

H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H400	Very toxic to aquatic organisms
H410	Very toxic to aquatic life with long lasting effects

Precautionary advise

P273	Do not disperse in the environment
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P280	Wear protective gloves / protective clothing / eye protection / face protection
P305+P351+P338	In case of contact with eyes: rinse thoroughly for several minutes. Remove any contact lenses if easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor
P333+P313	If skin irritation or rash occurs: seek medical attention

2.3 Other hazards

It does NOT contain PBT / vPvB substances according to Regulation (EC) 1907/2006, annex XIII
 It does NOT contain substances that interfere with the endocrine system in accordance with Regulation (EC) 1907/2006 art.59 paragraph 1 and in accordance with the criteria established in Regulation (EU) 2017/2100 and Regulation (EU) 2018/605.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance : PALLADIUM ACETATE (II) ≤ 100%

CAS number : 3375-31-3
 EINECS number : 222-164-4
 Index Number : Not available
 STA: Oral LD50 > 5110 mg/kg (rat)
 Acute M factor : 100
 Chronic M factor: 10

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Take the person to a very well ventilated area and consult a doctor for safety. If the person is unconscious, keep him stable on his side during transport.
Ingestion	Call a doctor immediately. Make victim drink water (two glasses at most). Do not induce vomiting.
Contact with skin	Immediately wash with water and rinse thoroughly.
Contact with eyes	Rinse with plenty of running water for at least 15 minutes while keeping the eyelids open (remove contact lenses if it is easy to do so). Consult an ophthalmologist.

Recommendations:

- Need to see a doctor immediately YES
- Possibility of delayed effects following exposure NO
- Move the exposed individual from the place of exposure to the open air YES
- Remove the clothing and shoes of the exposed individual YES
- How to handle contaminated clothing Use gloves
- For those providing first aid, wear PPE YES

4.2 Most important symptoms and effects, both acute and delayed

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Irritation and burning to eyes and skin

4.3 Indication of any immediate medical attention and special treatment needed

Consult a doctor immediately

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media Suitable extinguishing media: CO₂, powder or water spray.
Extinguish large fires with water spray or alcohol-resistant foam.

Unsuitable extinguishing media No one in particular

5.2 Special hazards arising from the substance or mixture

In case of fire, toxic fumes may be produced: carbon monoxide.

5.3 Advice for firefighters

General Prevent the water used to extinguish the fire from flowing into the sewer,
informations groundwater or surface water.

Equipment Protective helmet with visor, fireproof clothing, fireproof gloves, an
overpressure mask with a facepiece that covers the entire face of the
operator or self-contained breathing apparatus in the event of large
quantities of smoke.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Move away from the contaminated area immediately and keep upwind.

6.1.2. For emergency responders

Wear :

Gloves for chemical risks compliant with EN420 EN374 Standards

Complete clothing compliant with the UNI EN 13034: 2006 standard

Semi-face masks with ABEK2P3 R filters conforming to EN14387: 2004 + A1: 2008

6.2 Environmental precautions

Prevent infiltration into the sewer, groundwater and surface water

6.3 Methods and material for containment and cleaning up

6.3.1. Advice in order to contain a spill

Avoid formation of dust

6.3.2. Advice in order to clean-up a spill

Wash contaminated area with water

6.3.3 Other information

None

6.4 Reference to other sections

None

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Recommendations in order to manipulate the substance or the mixture in a safe manner, such as containment measures and prevention of fire and aerosol and powders formation

Store in the original labeled packaging. Close immediately after use

7.1.2. General recommendation on work 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 Safe storage, including any incompatibilities

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7.2.1. Risk management associated with explosive atmospheres, corrosive conditions, flammability hazards, incompatible substances or mixtures, evaporative conditions, potential ignition sources

Store in an area without drains or access to sewers and away from humidity and direct light.

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

Store in closed and labeled containers

7.2.3. Conditions for keeping substances / mixtures intact

Keep in a cool and dry place in tightly closed containers at temperatures not exceeding 25 ° C

7.2.4 Provisions relating to ventilation, specific design of storage rooms or containers, quantitative limits in storage conditions, compatibility of packaging

Use approved ADR packaging

7.3. Specific end use(s)

Industrial use. Catalyst for synthesis

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

DNEL

Up to now, no data is available

PNEC

Up to now, no data is available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Periodically check the range of the extractor hood.

8.2.2. Individual protection measures, such as personal protective equipment

Eye/face protection

Splash goggles compliant with Directive 89/686 / EEC and standard EN166: 2001

Skin protection (hands)

Chemical gloves according to EN 420 EN 374

Glove material:

Natural latex

Material thickness: 0.5 mm

Penetration time: ≥ 15 min DIN EN374 method

Skin protection (body)

Complete clothing compliant with the UNI EN 13034: 2006 standard

Respiratory protection

semifacial mask with P3 filters

Thermal hazards

none

8.2.3. Environmental exposure controls

Maintain suction in all environments using localized collection systems and ambient air exchange. Convey the aspirated volumes to an abatement system and then into the atmosphere. Do not use recirculating air suction systems. Avoid any spillage into the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state

Dust

Color

Orange

Odor

Undefined

Melting point / freezing point

450 ° C

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Boiling point or initial boiling point and boiling range	Not applicable
Flammability	Not inflammable
Lower and upper explosive limits	Not explosive
Flash point	Not inflammable
Self-ignition temperature	Not inflammable
Decomposition temperature	Not inflammable

pH	Unavailable
Kinematic viscosity	Not applicable
Solubility	922 mg / L at 20 ° C and pH 3.5
Partition coefficient n-octanol / water (logarithmic value)	-0.17 to 20 ° C
Vapor pressure	0.002 Pa at 25 ° C
Density and / or relative density	2.35 g/cm ³
Relative vapor density	> 220 ° C
Characteristics of the particles	<100 µm: 87.7%

9.2. Other information

None

10. STABILITY AND REACTIVITY

10.1 Reactivity

No relevant information

10.2 Chemical stability

The product is stable under normal working conditions

10.3 Possibility of hazardous reactions

No relevant information

10.4 Conditions to avoid

strong heating

10.5 Incompatible materials

Aluminum and iron

10.6 Hazardous decomposition products

carbon monoxide

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Oral LD50 > 5110 mg / kg bw (rat)

Skin corrosion / irritation Based on available data, the classification criteria are not met
 Corrosive to eyes (Category 1), according to EU CLP criteria (EC 1272/2008).

Serious eye damage/irritation

Respiratory or skin sensitization Based on the outcome of a LLNA assay (according to OECD429, GLP compliant), Palladium(II) acetate is classified as Skin sensitiser 1

Germ cell mutagenicity Based on available data, the classification criteria are not met

Carcinogenicity Based on available data, the classification criteria are not met

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	Reproductive toxicity	Based on available data, the classification criteria are not met
	STOT – single exposure	Based on available data, the classification criteria are not met
	STOT – repeated exposure	Based on available data, the classification criteria are not met
11.2	Information on other hazards	
	None	
12.	ECOLOGICAL INFORMATION	
12.1	Toxicity	EC50 (48h) (invertebrates): 75 µg/L NOEC (48h) (invertebrates): 50 µg/L NOEC (72h) (algae): 0.47 µg/L EC10 (72h) (algae): 1.73 µg/L
12.2	Persistence and degradability	Data not available
12.3	Bioaccumulative potential	Data not available
12.4	Mobility in soil	Data not available
12.5	Results of PBT and vPvB assessment	Not applicable
12.6	Endocrine disrupting properties	No known effects
12.7	Other adverse effects	No known effects
13.	DISPOSAL CONSIDERATIONS	
13.1.	Waste treatment methods	The substance and its packaging must be disposed of as hazardous waste by authorized companies.
14.	TRANSPORT INFORMATION	
14.1	UN number or ID number	UN3077
14.2	Official UN shipping name	Environmentally hazardous substance, solid, n.o.s
14.3	Transport hazard class(es)	
	ADR/RID/IMDG/ICAO-IATA: Class:	9
	ADR/RID/IMDG/ICAO-IATA: Label:	9 + mark environmental hazard
	ADR: Tunnel restriction code	-
	IMDG - EmS:	F-A S-B
14.4	Packing group	III
14.5	Dangers for the environment	
	ADR/RID/ICAO-IATA:	Product dangerous for environment
	IMDG: Marine Contaminant:	yes
14.6	Special precautions for user	
	Transport must be carried out by vehicles authorized for the transport of dangerous goods according to the provisions of the current edition of the A.D.R. Agreement. and the applicable national provisions. Transport must be carried out in the original packaging and, in any case, in packaging which is made of materials which cannot be attacked by the contents, and which are not likely to generate dangerous reactions. Those responsible for loading and unloading dangerous goods must have received appropriate training on the risks presented by the preparation and on any procedures to be adopted in the event of emergency situations.	
14.7	Maritime transport in bulk according to IMO instruments	
	Bulk transport is not foreseen	
15.	REGULATORY INFORMATION	

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15.1	<p>Safety, health and environmental regulations/legislation specific for the substance or mixture</p> <p>Reg. (EC) 1907/2006 / EC Reach</p> <p>Reg. (EC) 1272/2008 CLP and subsequent changes and additions</p> <p>Reg. (CE) 2037/2000 "Substances that deplete the ozone layer"</p> <p>Reg. (EC) 850/2004 "Persistent organic pollutants"</p> <p>Reg. (EC) 689/2008 "export and import of dangerous chemicals"</p> <p>Substance listed in Annex I of Dir. 2012/18 / EU so-called Seveso</p> <p>Legislative Decree 81/2008 Consolidated Law on health and safety at work</p> <p>Directive 2014/103 / EU "Adr"</p> <p>Reg. (CE) 1907/2006/CE Reach art. 59 – Candidate List of Substances of Very High Concern (SVHC)</p> <p>Reg. (CE) 1907/2006/CE Reach - Annex XIV – Authorisation List</p> <p>Reg. (CE) 1907/2006/CE Reach - Annex XVII – Restriction List</p> <p>https://echa.europa.eu/it/substances-restricted-under-reach</p>	<p>Applicability</p> <p>YES</p> <p>YES</p> <p>NO</p> <p>NO</p> <p>NO</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>NO</p> <p>NO</p> <p>Limited use</p> <p>Item 75</p> <p>(check link)</p>
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15.2 **Chemical safety assessment**
 A chemical safety assessment was not carried out

16.

OTHER INFORMATION

Changes compared to the previous edition
 Changes to sections: 8-11-12-14-16

Acronim and abbreviation legend
 ADR: European Agreement concerning the International Carriage 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
 STA: Acute Toxicity Estimate
 PBT: Persistent, Bioaccumulative and Toxic.
 vPvB: (very persistent and very bioaccumulative). Very persistent and very bioaccumulative
 LD: lethal dose
 PNEC: predicted no effect concentration
 DNEL: derived no effect level
 TLV (ceiling value): threshold limit value
 STEL: short-term exposure limit
 EU-OEL: European occupational exposure limit
 TWA: time-weighted average
 EC: effective concentration
 NOAEL: no observed adverse effect level
 LC: lethal concentration
 NOEC: no observed effect concentration
 LOEC: lowest observed effect concentration
 Bw: body weight
 Koc: organic carbon-water partition coefficient

Main references and data sources
 ECHA's data bank on registered substances and soon to be registered substances:
<https://chem.echa.europa.eu/>

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

Training on Chemical Risk pursuant to Legislative Decree 81/08 Title IX dangerous substances

PPE training