

SAFETY DATA SHEET**According to Regulation n. 1907/2006 and Regulation 830/2015****Dicloro[1,1' bis(diphenylphosphino)ferrocene]palladium(II)**

Revision n. II dd 21.01.2019

Replaces revision n I dd 15.09.2017

1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY**1.1 Product Identifier**

Denomination **Dichloro [1,1' bis(diphenylphosphino)ferrocene] palladium(II),**
 C.A.S. Registry Number 72287-26-4
 EINECS No. -
 Molecular weight 731.77 g/mol
 Formula bruta C₃₄H₂₈Cl₂FeP₂Pd
 Commercial Name **Diclorobis[(difenilfosfina)ferrocene]Palladium(II)**

1.2 Substance or Mixture Identified pertinent uses and suggested uses

Omogeneous Catalyst

1.3 Safety Data Sheet supplier information**EU market introducing responsible**

Name FAGGI ENRICO S.P.A.
 Address Via Majorana, 101/103 50019 Sesto Fiorentino FI
 Telephone number 055311861
 Fax number 055311791
 Qualified person responsible for SDS

lorenzo.magaldi@faggi.it**1.4 Emergency Telephone Number:** Tel. 0557947819 Centro Antiveleni di Firenze**1.5 Registry number**

For this product is not available a registration number as the annual produced or imported quantity is below one ton

2. HAZARDS IDENTIFICATION**2.1 Mixture classification according to Reg. (CE) n. 1272/2008 :**

Hazard Classes	Categories	Hazard codes
	Codes	
Skin irritation	2	H315
Eye irrit.	2	H319
STOT SE	3	H335

2.2 Label elements :**Pictograms:****Advices****ATTENTION**

H315 Cause skin irritation
H319 Cause serious eye irritation
H335 May cause respiratory irritation

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Safety advices

P261	Avoid breathing dust / fumes / gas / mist / vapours / spray
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection
P302+P352	IF ON SKIN: Wash with plenty of water
P333-P313	If skin irritation or a rash occurs: Get medical advice/attention.
P501	Dispose of contents / container in accordance with local / regional / national / international regulation

More

None

information

PBT : not applicable

- **Results of PBT and vPvB ev.**

vPvB : not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS**3.1 Substance Dichloro [1,1' bis(diphenylphosphino)ferrocene] palladium(II)**

CAS No : 72287-26-4

EINECS No.

CE No. : -

IUPAC No. -

4. FIRST AID MEASURES**4.1 Description of first aid measures**

Inhalation	Move the subject from exposure to fresh air. By security consult a doctor. If the subject is unconsciousness bring him into stable side position for transportation.
Ingestion	Call immediately a doctor. Let drink water immediately (at least 2 glasses)
Skin contact	Wash immediately with water and soap, rinsing carefully
Eye contact	Remove contact lenses. Wash immediately with plenty of water for at least 15 minutes, opening eyes. Consult a doctor if the problem persists.

Recommendations:

- **Need to consult immediately a doctor** YES
- **Possibility of delayed effects after exposure** YES
- **Move the exposed individual from exposure place to outdoor** YES
- **Remove individual's clothes and shoes** YES
- **Contaminated clothes handling** With gloves
- **For first aid responders, wear IPD** YES

4.2 Most important symptoms and effects, both acute and delayed

Skin and eye irritation

4.3 Indication of any immediate medical attention and special treatment needed

Consult immediately a doctor

5. FIREFIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media: CO₂, water dust or spray. Fight larger fires with water spray or alcohol resistant foam.

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Non suitable extinguishing media: None in particular

5.2 Special hazards arising from the substance or mixture

Avoid to breath smokes. If involved in a fire may generate: Carbon monoxide, hydrochloric acid, phosphorus oxides

5.3 Advice for firefighters

General information Do not allow water used to extinguish the fire flows into drain, in groundwater or surface water.

Devices Normal clothing to fight the fire, such as a compressed air breathing apparatus open circuit (EN137), full flame retardant (EN469), fire resistant gloves (EN659) and boots for firefighters (HOA29 or A30)

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 and keep upwind.

6.1.2. For emergency responders

Wear :

Gloves for chemical risks comply with the rule EN420 EN374

Complete acid-proof clothing in conformity with the UNI EN 13034: 2006

Half-facial masks with filters ABEK2P3 R complies with EN14387: 2004 + A1: 2008

6.2 Environmental precautions:

Do not allow to enter drainage system, ground water and surface water. In case of water penetration or infiltration to terrain, warn qualified authorities

6.3 Methods and materials for containment and cleaning up

6.3.1. Recommendations on how to contain a spill

Avoid powder formation

6.3.2. Recommendations on how to clean up a spill

Wash the area with plenty of water.

6.3.3. Other informations:

None

6.4 Reference to other sections:

-

7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

7.1.1. General recommendations

Store in original packaging and labeled. Maintain container well sealed in a fresh and dry space

7.1.2. General recommendations on personal hygiene

do not eat, drink or smoke in work areas; Wash hands thoroughly after use and remove contaminated clothing and protective equipment before entering areas where you eat.

7.2. Conditions for safe storage, including any incompatibilities

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

Keep away from oxidizing agents

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

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Keep protected from direct sunlight in a dry, cool and well-ventilated space.

7.2.4. Precautions for maintaining integrity of the substances

Containers must be well sealed and labeled. Close containers immediately after use

7.2.5. Provisions on ventilation, specific design for storage rooms or vessels, quantity limits under storage conditions, packaging compatibilities

Stockage spaces must be fresh and dry. Store in an area without manhole or access to sewerage

7.3. Specific end use

Omogeneous Catalyst

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

For this substance It has not been established values for professional and biological exposure limits corresponding to EC limits referred to in Directives 98/24 / EC and 2004/37 / EC

8.2. Exposure controls:

8.2.1. Appropriate engineering controls

Use under extractor hood. Verify periodically hood capacity.

8.2.2. Individual protection measures, such as personal protective equipment

Protection Eye / face

protective goggles for the eyes conform to Directive 89/686 / EEC and to the standard EN166: 2001

Skin protection (Hands)

Latex protective gloves or nitrile rubber comply with directive UE89/89/CEE and with standard(EX374). Gloves permeation time must be ≥ 480 min. and thickness of 0,11 mm.

Skin protection (Body)

Clothing complete conformity with the UNI EN 13034: 2006

Respiratory protection

Mask with P3 filters

Thermal hazards

Info not available

8.2.3. Environmental exposure controls

Maintain aspiration to all environments using local capture systems and ambient air change. Conveying the withdrawn volumes to an abatement system and then into the atmosphere. Do not use vacuum systems to air recirculation. Avoid any spillage in the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Basic Information on physical and chemical properties

Appearances

Red crystal powder

Odour

Odourless

Odour Threshold

Not defined

pH

Not applicable

Melting point/freezing

266-280°C

Initial boiling point and boiling range:

Not defined as product decompose

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	Flash point	Not flammable
	Evaporation Rate	Not available
	Flammability (solid & gas)	Not flammable
	Upper/Lower flammability or explosive limits	Not flammable and not explosive
	Vapour pressure	Not defined
	Vapour Density	Not defined
	Bulk density	Not applicable
	Solubility in water	Insoluble in water
	Partition coefficient n-octanol/Water	Not applicable
	Auto-ignition Temperature	Not applicable
	Decomposition Temperature	Not defined
	Viscosity	Not applicable
	Explosive Properties	Not classified as explosive
	Oxidizing Properties	Not Oxidizing
9.2.	Other informations	
	None	
10.	STABILITY AND REACTIVITY	
10.1	Reactivity	
	The product has catalytic properties	
10.2	Chemical stability	
	The substance is stable into the normal way of use	
10.3	Possibility of hazardous reactions	
	Reaction with strong oxidizing agents	
10.4	Conditions to avoid	
	Humidity	
10.5	Incompatible materials	
	Oxidizing agents	
10.6	Hazardous decomposition products	
	Carbon monoxide, hydrochloric acid, phosphorus oxides	
11.	TOXICOLOGICAL INFORMATION	
11.1	Information on toxicological effects	
	Acute toxicity:	Oral LD50 >1600 mg /kg(rat)
	Corrosion / irritation	May have irritant effects
	Eye irritations/damages	Causes serious eyes irritation

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	Sensitization	May cause skin irritation
	Mutagenicity	Data not available
	Carcinogenicity:	Data not available
	Reproductive toxicity	Data not available
	Specific target organ toxicity (STOT) - single exposure	Data not available
	Specific target organ toxicity (STOT) – repeated exposure	Data not available
	Inhalation hazards	Data not available
11.2	Information about exposure routes	
	respiratory apparatus	
11.3	Symptoms related to the physical, chemical and toxicological	
	Irritation	
11.4	Immediate, delayed and chronic effects from exposure to short and long term	
	Skin and eyes irritation. Risk of eyes injuries	
11.5	Interactive effects	
	Unknown interactive effects	
11.6	Absence of specific data	
	-	
11.7	Other Information	
	None	
12.	Ecological informations	
	Specific data for this substance are unknown, so dichloromethane data have been used	
	Toxicity	For this product specific data are unknown
	Persistence and degradability	No information available
	Bioaccumulative potential	No information available
	Mobility in soil	No information available
	Results of PBT and vPvB evaluation	No information available
	Other adverse effects	No information available
13.	DISPOSAL CONSIDERATIONS	
13.1.	13. Methods of Waste Treatment:	
	The substance and packages must be sent to approved facilities for the disposal of industrial waste	
14.	TRANSPORT INFORMATION	
	The substance is not submitted to ADR law	
15.	REGULATORY INFORMATION	
15.1	Legislazione	Applicabilità
	Reg. (CE) 1907/2006/CE Reach	SI
	Reg. (EC) 1272/2008 and subsequent CLP. amendments and additions	SI
	Reg. (EC) 2037/2000 "substances that deplete the ozone layer"	NO
	Reg. (EC) 850/2004 "Persistent organic pollutants"	NO
	Reg. (EC) 689/2008 "export and import hazardous chemicals"	NO
	Substance listed in Annex I of Dir. 96/82 / EC - "Seveso II"	NO
	Directive, which was transposed into national legislation by the Legislative Decree 334/99	

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- Italian Legislative Decree 81/2008 (Consolidated Act on protection of health and safety in the workplace), as amended Directive 2014/103/UE "Adr" SI
- 15.2 **Chemical Safety Assessment** NO
A chemical safety assessment has not been carried out.
16. **OTHER INFORMATION**
- 16.1 **Data compared to the previous version:**
Modified sections 1
- 16.2 **Abbreviations and acronyms**
ADR: European Agreement on the transport of dangerous goods by road
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
EINECS: European chemical substance inventory
CAS: Chemical Abstracts Service
- 16.3 **Key literature references and sources of the data on this MSDS:**
<http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>
platform ESIS <http://esis.jrc.ec.europa.eu>
Safety data sheets of the suppliers of substances used in the formulation
- 16.4 **Classification and procedure used to derive it in accordance with Reg. (EC) 1272/2008 in relation to the mixtures.**
Classification according to Regulation (CE) 1272/2008 **Classification Procedure**
- 16.5. **Formazioni adeguate per i lavoratori al fine di garantire la protezione della salute umana e dell'ambiente**
- Training in accordance with the provisions of the Legislative Decree 81/2008 (Consolidated Act on protection of health and safety in the workplace), as amended.
 - PPE use
- 16.6. **Other informations**
None

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