

Safety data sheet
According to Regulation n. 1907/2006 and Regulation 878/2020
PD CHLORIDE IN SOLUTION 200 g / l



Revision n. VII – 01.12.2022
Replaces revision n VI - 07.07.2022

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

1.1 Product identifier

Chemical name PD CHLORIDE IN SOLUTION 200 g / l
Product code 185

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

Intended uses Industrial use
Uses advised against Check section 15

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

A registration number is not available for this product as it is a mixture.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Hazard classes	Category codes	Hazard statements
Met. Corr.	1	H290
Acute Tox.	4	H302
Skin Corr.	1B	H314
Eye Dam.	1	H318
Skin Sensitive	1	H317
STOT SE	3	H335
Aquatic chronic	1	H400
Aquatic acute	1	H410

2.2 Label elements

Pictograms



Signal word

DANGER

Hazard statements

H290 May be corrosive to metals
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H335 May cause respiratory irritation
H410 Very toxic to aquatic life with long lasting effects

Precautionary statements

P270 Do not eat, drink or smoke during use

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P280	Wear protective gloves / clothing. Protect eyes / face
P303+P361+P353	IN CASE OF CONTACT WITH SKIN (or hair): immediately take off contaminated clothing. Rinse the skin / take a shower
P305+P351+P338	IN CASE OF CONTACT WITH THE EYES: rinse thoroughly for several minutes. Remove any contact lenses if easy to do. Continue rinsing
P301 + P330+P331	IF SWALLOWED rinse mouth. Do not induce vomit.
P304+P340	IN CASE OF INHALATION: transport the injured person to fresh air and keep him in a position that favors INHALATION.

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

3.2 Mixture

Product identifier	Concentration	Classification Hazard classes and category codes	Indications of danger
Palladium (II) Chloride CAS : 7647-10-1 EC : 231-596-2 Index number: not available ATE: LD50 oral 576 mg/kg bw (rat) M factor acute: 100 M factor chronic: 10	20 % ≤ C ≤ 30 %	Met. Corr. 1 Acute Tox. 4 Skin Sens. 1 Eye Dam. 1 Aquatic Acute 1 Aquatic Chronic 1	H290 H302 H317 H318 H400 H410
Hydrochloric acid 31 -33% CAS: 7647-01-0 EC: 231-595-7 N. Reach: 01-2119484862-27-XXXX ATE: LC50 (rat) (inhalation): 4701 ppm Specific limits: Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 %	25 % ≤ C ≤ 50 %	Met. Corr. 1 Skin Corr. 1 B STOT SE 3	H290 H314 H335

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Eye Irrit. 2; H319: 10 % ≤ C < 25 %

STOT SE 3; H335: C ≥ 10 %

M factor: not applicable

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation Bring the injured person to fresh air. If breathing is stopped, give artificial respiration. Consult a physician.

Ingestion Drink a lot of water. Do not induce vomiting. Consult a physician.

Contact with skin Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and wash it before reuse.

Contact with eyes Rinse with plenty of running water for at least 15 minutes Do not use eye drops or ointments. Consult a physician.

Recommendations:

YES

• Need to see a doctor immediately

YES

• Possibility of delayed effects following exposure

YES

• Move the exposed individual from the place of exposure to the open air

YES

• Remove the clothing and shoes of the exposed individual

With gloves

• How to handle contaminated clothing

YES

• For first aiders, wear PPE

YES

4.2 Most important symptoms and effects, both acute and delayed

Eye, nose and throat irritation, chest pain, choking, skin irritation, corneal burns, skin burn (after severe exposure), nausea, vomiting. Abundant and haemorrhagic mucous secretions, bronchitis, pulmonary edema, corneal necrosis, tissue necrosis, gastrointestinal tract perforation

4.3 Indication of any immediate medical attention and special treatment needed

Consult a doctor immediately. Emergency showers and eye washing systems must be available in the workplace.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media Water spray, carbon dioxide, foam

Unsuitable extinguishing media None in particular

5.2 Special hazards arising from the substance or mixture

In case of fire it can develop hydrochloric acid, toxic for inhalation. The product reacts with metals to develop hydrogen, which is highly flammable.

5.3 Advice for firefighters

Prevent the water used to extinguish the fire from flowing into the sewer, groundwater or surface water. Cool containers at risk with water.

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Equipment: Normal fire-fighting 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 non-emergency personnel

Keep away from contaminated area 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

Contain spill with appropriate absorbent material (sand, sawdust) and keep in hermetic sealed container

6.3.2. Advice in order to clean-up a spill

Wash the area with plenty of 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

Keep in original closed and labeled container

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 for safe storage, including any incompatibilities

Keep away from bases, strong oxidants and metals

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

Store in the original containers and close them immediately after use.

7.2.2. Control of weather conditions, ambient pressure, temperature, sunlight, humidity, and vibration

Store in a dry and cool place.

7.2.3. Conditions to maintain the integrity of the substance or mixture

Packages must be kept closed and labeled

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7.2.4. Advice regarding the ventilation, specific design for storage rooms or vessels, quantity limits under storage conditions, packaging compatibilities

Use PE and PP plastic packaging or other resistant materials. Keep the packages in the containment basin.

7.3. Specific end use(s)

Industrial use

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8-hour limit value: 5 ppm mg / 7,5 mg/m³ Legislative Decree 81/08

Short term limit value: 10 ppm 15 mg / m³ Legislative Decree 81/08

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Ventilation systems. Emergency showers and eye washing system near the work area. Periodically check the range of the extractor hood.

8.2.2. Individual protection measures, such as personal protective equipment

Eye/face protection Protective goggles for eyes compliant with Directive 89/686 / EEC and with standard EN166: 2001

Skin protection (hands) Chemical risk gloves compliant with EN420 EN374 standards

Skin protection (body) Complete antacid clothing compliant with the UNI EN 13034: 2006

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

Thermal hazards Info not available

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	Liquid
Colour	Brown red
Odour	Pungent, irritating
Melting point/freezing point	About -50 ° C
Boiling point or initial boiling point and boiling range	About 107 ° C
Flammability	Not inflammable
Lower and upper explosion limit	Not explosive
Flash point	Not inflammable
Auto-ignition temperature	Not inflammable
Decomposition temperature	Not applicable
pH	Undefined
Kinematic viscosity	1.73 mm ² / s at 20 ° C
Solubility	Completely soluble in water

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Partition coefficient n-octanol/water (log value)	Not applicable
Vapour pressure	12 hPa at 25 ° C
Density and/or relative density	1.5 g / ml
Relative vapour density	Data not available
Particle characteristics	Not applicable

9.2. Other information

None

10. STABILITY AND REACTIVITY

10.1 Reactivity

Hydrochloric acid is a strong acid with corrosive action with numerous metals. It can produce corrosive vapors.

10.2 Chemical stability

Stable under normal storage conditions

10.3 Possibility of hazardous reactions

Hydrochloric acid can react with oxidizing products (peroxides, permanganates, chromates, persulfates ...) generating toxic gases. Reacts with metals generating hydrogen with production of heat; danger of explosion. It can produce chlorine from light or other catalysts. Reacts violently with bases and amines

10.4 Conditions to avoid

Exposure to heat and sunlight.

10.5 Incompatible materials

Strong bases, oxidizing agents, metals

10.6 Hazardous decomposition products

It does not decompose but can develop hydrochloric acid vapors

11. TOXICOLOGICAL INFORMATION (Hydrochloric acid)

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

Acute toxicity	LC50 (rat) (inhalation): 4701 ppm
Skin corrosion / irritation	Corrosive to the skin
Serious eye damage/irritation	Risk of serious eye damage. Rabbit 0.5 ml Cat. 1 (irreversible effects on the eyes)
Respiratory or skin sensitization	Can cause allergic reaction to the skin
Germ cell mutagenicity	Based on the available data, the classification criteria are not met
Carcinogenicity	Based on the available data, the classification criteria are not met
Reproductive toxicity	Based on the available data, the classification criteria are not met
STOT – single exposure	Highly irritating to the respiratory tract and lungs
STOT – repeated exposure	Based on the available data, the classification criteria are not met

11.2 Information on other hazards

None

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12.	ECOLOGICAL INFORMATION (Hydrochloric acid)	
12.1	Toxicity	Fish, acute LC50 pH 3.25 normalized to 20.5 mg / l / 96h Invertebrates: EC50 pH 4.7 normalized to 0.73 mg / l / 72h
12.2	Persistence and degradability	It is not biodegradable and dissociates in water. Adsorption / desorption in the soil is impossible
12.3	Bioaccumulative potential	Insignificant given the high solubility in water
12.4	Mobility in soil	It does not reach sediment / soil and therefore cannot be ingested by birds or mammals
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	3264
14.2	UN proper shipping name	Inorganic liquid, corrosive, acid n.o.s. (hydrochloric acid)
14.3	Transport hazard class(es)	8
14.4	Packing group	II
14.5	Environmental hazards	YES
14.6	Special precautions for user	Use approved packaging
14.7	Maritime transport in bulk according to IMO instruments	n.a.
15.	REGULATORY INFORMATION	
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	Applicability
	Reg. (EC) 1907/2006 / EC Reach	YES
	Reg. (EC) 1272/2008 CLP and subsequent changes and additions	YES
	Reg. (CE) 2037/2000 "Substances that deplete the ozone layer"	NO
	Reg. (EC) 850/2004 "Persistent organic pollutants"	NO
	Reg. (EC) 689/2008 "export and import of dangerous chemicals"	NO
	Substance listed in Annex I of Dir. 2012/18 / EU so-called Seveso	NO
	Legislative Decree 81/2008 Consolidated Law on health and safety at work	YES
	Directive 2014/103 / EU "Adr"	YES
	Reg. (CE) 1907/2006/CE Reach art. 59 – Candidate List of Substances of Very High Concern (SVHC)	NO
	Reg. (CE) 1907/2006/CE Reach - Annex XIV – Authorisation List	NO
	Reg. (CE) 1907/2006/CE Reach - Annex XVII – Restriction List	Limited use
	https://echa.europa.eu/it/substances-restricted-under-reach	Item 3 - 75 (check link)

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15.2 Chemical safety assessment

A chemical safety assessment was not carried out

16. OTHER INFORMATION

16.1 Changes compared to the previous edition

Regulatory update

16.2 Acronym and abbreviation legend

ADR : Agreement concerning the International Carriage of Dangerous Goods by Road

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstract Service

16.3 Main references and data sources

ECHA's data bank on registered substances and soon to be registered substances:

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

Indication, for mixtures, of which methods of evaluation of the information have been used for the purposes of classification

Classification

Classification procedure

Metal Corrosive 1	Calculation
Skin corrosive 1 C	Calculation
STOS SE 3	Calculation
Aquatic chronic 1	Calculation
Aquatic acute 1	Calculation
Acute Tox 4	Calculation
Skin Sensitive 1	Calculation
Eye Dam.1	Calculation

16.5 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