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Creation Date: 10-03-2025

Revision Date: 29-07-2030

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Palladium(II) chloride, ≥99.9% Product Code: P 0936 CAS NO: 7647-10-1

1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet
Company identification
OTTO CHEMIE PVT LTD
101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate,
Chinchpada, Vasai East, Waliv, Maharashtra 401208.
Email <u>info@ottokemi.com</u>

1.4. Emergency telephone number Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm).

SECTION 2: Hazards identification

SECTION 2: Hazards identification	
2.1 Classification of the substance or mixture	
Corrosive to Metals, (Category 1)	H290: May be corrosive to metals.
Acute toxicity, (Category 4)	H302: Harmful if swallowed.
Serious eye damage, (Category	H318: Causes serious eye damage.
1)	
Skin sensitization, (Category 1)	H317: May cause an allergic skin reaction.
Short-term (acute) aquatic	H400: Very toxic to aquatic life.
hazard, (Category 1)	
Long-term (chronic) aquatic	H410: Very toxic to aquatic life with long
hazard, (Category 1)	lasting effects.
2.2 Label elements	
Labelling according Regulation (EC) No 1272/2008	
Pictogram	
Signal Word	Danger
Hazard Statements	Builder
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H410	Very toxic to aquatic life with long lasting effects.
Precautionary Statements	very toxic to aquatic life with long lasting effects.
P234	Keep only in original packaging.
P273	Avoid release to the environment.
P280	
P301 + P312	Wear protective gloves/ eye protection/ face protection. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel
F301 + F312	unwell.
P302 + P352	
	IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes.
	Remove contact lenses, if present and easy to do. Continue
	rinsing.
Supplemental Hazard	none
Statements	
Reduced Labeling (<= 125 ml)	
Pictogram	
Signal Word	Danger

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Hazard Statements H318 H317 Precautionary Statements P280 P302 + P352 P305 + P351 + P338

Causes serious eye damage. May cause an allergic skin reaction.

Wear protective gloves/ eye protection/ face protection. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. none

Supplemental Hazard Statements

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances	
Formula	: Cl2Pd
Molecular weight	: 177,33 g/mol
CAS-No.	: 7647-10-1
EC-No.	: 231-596-2
CAS-No.	: 7647-10-1

Component	Classification	Concentration
Palladium(II) chloride		
CAS-No. 7647-10-1	Met. Corr. 1; Acute Tox. 4; Eye Dam. 1;	<= 100 %
EC-No. 231-596-2	Skin Sens. 1; Aquatic Acute 1; Aquatic	
	Chronic 1; H290, H302, H318, H317,	
	H400, H410 M-Factor - Aquatic Acute:	
	100 - Aquatic Chronic: 100	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures General advice Show this material safety data sheet to the doctor in attendance. If inhaled After inhalation: fresh air. In case of skin contact In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician. In case of eye contact After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses. If swallowed After swallowing: immediately make victim drink water (two glasses at most). Consult a physician. 4.2 Most important symptoms and effects, both acute and delayed The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 4.3 Indication of any immediate medical attention and special treatment needed No data available

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SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture Hydrogen chloride gas Not combustible. Ambient fire may liberate hazardous vapours. 5.3 Advice for firefighters Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. 5.4 Further information Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts. 6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions No metal containers. Tightly closed. Dry. Storage class Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters Ingredients with workplace control parameters 8.2 Exposure controls Personal protective equipment Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles Skin protection This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other

substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact

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Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L Body Protection protective clothing Respiratory protection required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P2 The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. Control of environmental exposure Do not let product enter drains. **SECTION 9: Physical and chemical properties** 9.1 Information on basic physical and chemical properties crystalline a) Physical state b) Color red c) Odor very faint, of chlorine d) Melting Melting point/ range: 678 - 680 °C - lit. point/freezing point e) Initial boiling point No data available and boiling range The product is not flammable. f) Flammability (solid, gas) g) Úpper/lower No data available flammability or explosive limits h) Flash point Not applicable i) Autoignition No data available temperature j) Decomposition 600 - 740 °C temperature 2,15 at 30 g/l at 20 °C k) Ph I) Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: No data available m) Water solubility 55,6 g/l at 20 °C - OECD Test Guideline 105 n) Partition coefficient: Not applicable for inorganic substances n-octanol/water o) Vapor pressure No data available p) Density 4 g/cm3 at 25 °C - lit. Relative densitv No data available q) Relative vapor No data available density r) Particle No data available *c*haracteristics s) Explosive properties Not classified as explosive.

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t) Oxidizing properties	
9.2 Other safety information	
No data available	

none

SECTION 10: Stability and reactivity 10.1 Reactivity No data available 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature) . 10.3 Possibility of hazardous reactions Violent reactions possible with: Strong oxidizing agents Strong acids Ammonia nitrates Zinc magnesium organic solvents 10.4 Conditions to avoid no information available 10.5 Incompatible materials Metals, Strong oxidizing agents 10.6 Hazardous decomposition products In the event of fire: see section 5 **SECTION 11: Toxicological information** 11.1 Information on toxicological effects Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals: Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L. Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant). Special Remarks on Toxicity to Animals: Not available. Special Remarks on Chronic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available. **SECTION 12: Ecological information** 12.1 Toxicity Toxicity to fish semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 0,154 mg/l - 96 h (OECD Test Guideline 203) Remarks: (referred to the cation) Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 0,035 mg/l - 48 h (OECD Test Guideline 202) Remarks: (referred to the cation) Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) -0,00296 mg/l - 72 h Remarks: (ECHA) Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) semi-static test NOEC - Daphnia magna (Water flea) - >= 0,0143 mg/l - 21 d (OECD Test Guideline 211) Remarks: (referred to the cation) 12.2 Persistence and degradability

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The methods for determining the biological degradal substances. 12.3 Bioaccumulative potential No data available 12.4 Mobility in soil No data available 12.5 Results of PBT and vPvB assessment This substance/mixture contains no components con bioaccumulative and toxic (PBT), or very persistent levels of 0.1% or higher. 12.6 Endocrine disrupting properties Product: Assessment : The substance/mixture does n considered to have endocrine d	nsidered to be either persistent, and very bioaccumulative (vPvB) at not contain components	
according to REACH Article 57(Delegated regulation (EU) 2017 Regulation (EU) 2018/605 at lev 12.7 Other adverse effects Discharge into the environment must be avoided.	(f) or Commission 7/2100 or Commission	
SECTION 13: Disposal considerations 13.1 Waste treatment methods No data available		
IMDG : CORROSIVE SOLID, ACIDIO, IATA : Corrosive solid, acidic, inorgan	IMDG: 3260 , INORGANIC, N.O.S. (Palladium(II) chloride) , INORGANIC, N.O.S. (Palladium(II) chloride) nic, n.o.s. (Palladium(II) chloride)	IATA: 3260
14.3 Transport hazard class(es) ADR/RID: 8	IMDG: 8	IATA: 8
14.4 Packaging group ADR/RID: III	IMDG: III	IATA: III
14.5 Environmental hazards ADR/RID: yes 14.6 Special precautions for user Tunnel restriction code : (E) Further information : No data available	IMDG Marine pollutant: yes	IATA: no
Further information : No data available 14.7 Maritime transport in bulk according to IMO ins Not applicable for product as supplied.	truments	
SECTION 15: Regulatory information 15.1 Safety, health and environmental regulations/les substance or mixture This material safety data sheet complies with the red 1907/2006. National legislation Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. E1 ENVIRONMENTAL HAZARDS Other regulations Observe work restrictions regarding maternity protect stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young 15.2 Chemical Safety Assessment For this product a chemical safety assessment was	quirements of Regulation (EC) No. ction in accordance to Dir 92/85/EEC or g people at work.	

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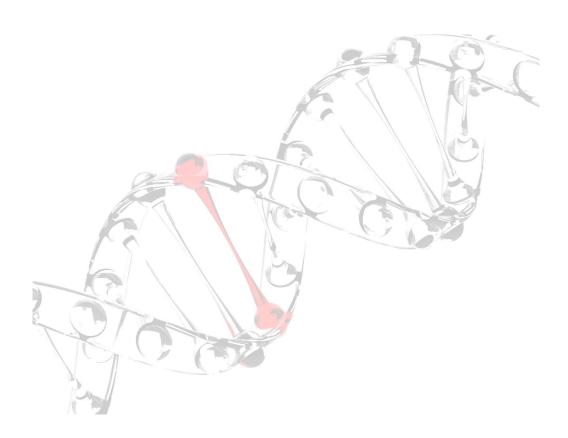
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SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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