An ISO 9001 : 2015 & GMP Certified Company Office : No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT) Tel : + 91 98200 41841 Email : info@ottokemi.com Web : www.ottokemi.com

Otto Chemie Pvt Ltd

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers

Product Name : [1,3-Bis(2,6-Diisopropylphenyl)imidazol-2-ylidene](3-chloropyridyl)palladium(II) dichloride, 98% Product Code : B 3907 CAS No: 905459-27-0

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 No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number Phone no. : + 91 98200 41841 (10 : 00 am - 06 : 00 pm)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Acute toxicity, oral, acute toxicity, dermal and acute toxicity, inhalation (Category H302+H312+H332 No Resource File 2.1 GHS Label elements, including precautionary statements Pictogram Signal word Warning Hazard statement(s) H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled Precautionary statement(s) Avoid breathing dust/fume/gas/mist/vapours/spray. P261 P264 Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. P270 Use only outdoors or in a well-ventilated area. P271 Wear protective gloves/protective clothing/eye protection/face protection. P280 P301+P312+P330 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or P302+P352+P312

P304+P340+P312

P362+P364 P501 2.2

Other hazards.

Additional precautionary phrases are located throughout the safety data sheet. 2.3

SACTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

Molecular Formula		: C32H40Cl3N3Pd				
Molecular We	ight	: 679.46				
Component		Concentration				
[1,3-Bis(2,6-Diisopropylphenyl)imidazol-2-ylidene](3-chloropyridyl)palladium(II) dichloride, 98%						
CAS NO	905459-27-0	-				

feel unwell.

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doctor/physician if you feel unwell.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you

Dispose of contents/container to in accordance with local regulation

Take off contaminated clothing and wash it before reuse.

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SACTION 4. FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. 4.1

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 4.2

Indication of any immediate medical attention and special treatment needed

No data available

4.3

SACTON 5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: alcohol-resistant foam, dry chemical or carbon dioxide Unsuitable extinguishing media: no data

5.1

Special hazards arising from the substance or mixture

In combustion toxic fumes may form.

5.2

Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective clothing to prevent contact with skin and eyes.

5.3

SACTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Do not attempt to take action without suitable protective clothing. For personal protection see section 8. 6.1 Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains or river. Alert the neighbourhood to the presence of fumes or gas. 6.2 Methods and materials for containment and cleaning up Mix with sand or vermiculite. Sweep up and shovel. Transfer to a closable, labelled salvage container for disposal by an appropriate method. 63 Reference to other sections For disposal see section 13.

6.4

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SACTION 7 HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Wash hands thoroughly after handling. Ensure there is sufficient ventilation of the area.

Normal measures for preventive fire protection. For precautions see section 2.2.

7.1

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated area. Containers which are opened must be carefully resealed and kept upright to prevent leakage.Inert atmosphere,Room Temperature

7.2

Specific end use(s)

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

7.3

SACTION 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.1

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a fullface supplied air respirator. Use respirators and components tested and approved under appropriate government standards such

as NIOSH (US) or CEN (EU). Control of environmental exposure Do not let product enter drains.

8.2

SACTION 9 PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance Form:	powder Colour: pale-yellow to yellow
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
I) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	No data available
 Partition coefficient: n-octanol/water 	No data available
p) Auto-ignition temperature	No data available

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q) Decomposition temperature
r) Viscosity
s) Explosive properties
t) Oxidizing properties
9.1
Other safety information
No data available
9.2

SACTION 10. STABILITY AND REACTIVITY

Reactivity No data available 10.1 Chemical stability Stable under recommended storage conditions. 10.2 Possibility of hazardous reactions No data available 10.3 Conditions to avoid No data available 10.4 Incompatible materials Strong oxidizing agents 10.5 Hazardous decomposition products Carbon monoxide , carbon dioxide , hydrogen chloride , nitrogen oxides , metallic oxides

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 other Toxic Effects on Humans: Not available.

SACTION 12. ECOLOGICAL INFORMATION

Toxicity No data available 12.1 Persistence and degradability No data available 12.2 Bioaccumulative potential No data available 12.3 Mobility in soil No data available 12.4 Results of PBT and vPvB assessment No data available 12 5 Other adverse effects No data available 12.6

SACTION 13. DISPOSAL CONSIDERATIONS

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No data available No data available No data available No data available

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Waste treatment methods Disposal Operations Consult state, local or national regulations for proper disposal. Hand over to authorised disposal company as hazardous waste. Disposal of Packaging Disposal must be made according to official regulations. 13.1

SACTION 14 TRANSPORT INFORMATION

14.1 UN number			
ADR/RID: -	IMDG: -	IATA: -	
14.2 UN proper shipping nam	e		
ADR/RID:	Not dangerous goods		
IMDG:	Not dangerous goods		
IATA:	Not dangerous goods		
14.3 Transport hazard class(e	es)		
ADR/RID: -	IMDG: -	IATA: -	
14.4 Packaging group			
ADR/RID: -	IMDG: -	IATA: -	
14.5 Environmental hazards			
ADR/RID: -	IMDG: -	IATA: -	
14.6 Special precautions for u			Ę
No special precautions require	ed		
14.7 Further information			
No data available			
SACTION 15 REGULATORY			
Safety, health and environme			
Product is not subject to any a	additional reg <mark>ulation</mark> s or provisi	ions	
Safety Assessment			
No Chemical Safety Assessm	ient		

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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