

# SAFETY DATA SHEET

Creation Date 26-Sep-2009

Revision Date 25-Dec-2021

**Revision Number** 7

| 1. | Identification |
|----|----------------|
|    |                |

| Product Name                            | Bis(triphenylphosphine)palladium(II) chloride                                   |  |  |
|---|---|--|--|
| Cat No. :                               | AC299250000; AC299250025; AC299250050; AC299250250;<br>AC299251000; AC299252500 |  |  |
| CAS No<br>Synonyms                      | 13965-03-2<br>Dichlorobis(triphenylphosphine)palladium(II)                      |  |  |
| Recommended Use<br>Uses advised against | Laboratory chemicals.<br>Food, drug, pesticide or biocidal product use.         |  |  |
| Details of the supplier of the          | safety data sheet   |  |  |

#### Details of the supplier of the safety data sheet

<u>Company</u> Fisher Scientific Company One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100

Acros Organics One Reagent Lane Fair Lawn, NJ 07410

Emergency Telephone Number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11 Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99 **CHEMTREC** Tel. No.**US:**001-800-424-9300 / **Europe:**001-703-527-3887

2. Hazard(s) identification

#### **Classification**

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### Label Elements

Hazard Statements

Precautionary Statements Hazards not otherwise classified (HNOC) May cause long lasting harmful effects to aquatic life

| Component   |   | CAS No             | Weight % |  |  |  |  |
|---|---|--------------------|----------|--|--|--|--|
| Dichlorobis(triphenylphosphine)palladium              |   | 13965-03-2         | >95      |  |  |  |  |
|   |   |                    |          |  |  |  |  |
|   | 4.  | First-aid measures |          |  |  |  |  |
| General Advice If symptoms persist, call a physician. |   |                    |          |  |  |  |  |
| Eye Contact   | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.   |                    |          |  |  |  |  |
| Skin Contact  | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. |                    |          |  |  |  |  |
| Inhalation  | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.      |                    |          |  |  |  |  |
| Ingestion   | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.             |                    |          |  |  |  |  |
| Most important symptoms and effects                   | No information available.   |                    |          |  |  |  |  |
| Notes to Physician                                    | Treat symptomatically   |                    |          |  |  |  |  |
|   |   |                    |          |  |  |  |  |

### 3. Composition/Information on Ingredients

5. Fire-fighting measures

| Suitable Extinguishing Media   | Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.                         |
|--|--|
| Unsuitable Extinguishing Media   | No information available   |
| Flash Point<br>Method -  | No information available<br>No information available   |
| Autoignition Temperature   | >230 °C / >446 °F  |
| Explosion Limits<br>Upper<br>Lower<br>Sensitivity to Mechanical Impac<br>Sensitivity to Static Discharge | No data available<br>No data available<br>t No information available<br>No information available |

#### Specific Hazards Arising from the Chemical

Risk of ignition. After use: spent catalysts may become explosive.

#### **Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Oxides of phosphorus. Phosphorus trihydride (phosphine). Hydrogen chloride gas. **Protective Equipment and Precautions for Firefighters** 

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

| <u>NFPA</u><br>Health<br>0 | Flammability<br>1          | Instability<br>0                | Physical hazards<br>N/A        |
|----------------------------|----------------------------|---------------------------------|--------------------------------|
|                            | 6. Accidental rel          | lease measures                  |                                |
| Personal Precautions       | Ensure adequate ventilatio | n. Use personal protective equi | ipment as required. Avoid dust |

| Environmental Precautions               | formation.<br>Should not be released into the environment.  |
|---|---|
| Methods for Containment and Clear<br>Up | n Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.  |
|   | 7. Handling and storage   |
| Handling                                | Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.   |
| Storage.                                | Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible Materials. Strong oxidizing agents.  |
| 8. E>                                   | xposure controls / personal protection  |
| Exposure Guidelines                     | This product does not contain any hazardous materials with occupational exposure<br>limitsestablished by the region specific regulatory bodies.   |
| Engineering Measures                    | Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.   |
| Personal Protective Equipment           |   |
| Eye/face Protection                     | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.   |
| Skin and body protection                | Wear appropriate protective gloves and clothing to prevent skin exposure.   |
| Respiratory Protection                  | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| Hygiene Measures                        | Handle in accordance with good industrial hygiene and safety practice.  |

9. Physical and chemical properties

| Physical State                         | Powder Solid             |
|--|--------------------------|
| Appearance                             | Yellow                   |
| Odor                                   | Odorless                 |
| Odor Threshold                         | No information available |
| рН                                     | No information available |
| Melting Point/Range                    | 260 °C / 500 °F          |
| Boiling Point/Range                    | No information available |
| Flash Point                            | No information available |
| Evaporation Rate                       | Not applicable           |
| Flammability (solid,gas)               | No information available |
| Flammability or explosive limits       |                          |
| Upper                                  | No data available        |
| Lower                                  | No data available        |
| Vapor Pressure                         | No information available |
| Vapor Density                          | Not applicable           |
| Specific Gravity                       | No information available |
| Solubility                             | Insoluble in water       |
| Partition coefficient; n-octanol/water | No data available        |
| Autoignition Temperature               | >230 °C / >446 °F        |
| Decomposition Temperature              | No information available |
| Viscosity                              | Not applicable           |
|  |                          |

| Molecular Formula<br>Molecular Weight  | C36 H30 Cl2 P2 Pd<br>701.89                            |  |  |  |
|--|--|--|--|--|
|  | 10. Stability and reactivity                           |  |  |  |
| Reactive Hazard None known, based on information available   |  |  |  |  |
| Stability  | Stable under normal conditions.                        |  |  |  |
| Conditions to Avoid  | Incompatible products. Exposure to moist air or water. |  |  |  |
| Incompatible Materials   | Strong oxidizing agents                                |  |  |  |
| Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Oxides of phosphorus, Phosphorus trihydride (phosphine), Hydrogen chloride gas |  |  |  |  |
| Hazardous Polymerization   | No information available.                              |  |  |  |
| Hazardous Reactions  | None under normal processing.                          |  |  |  |
|  | 11. Toxicological information                          |  |  |  |
| Acute Toxicity   |  |  |  |  |
| Product Information<br>Component Information<br>Toxicologically Synergistic<br>Products<br>Delayed and immediate effects a   | No information available                               |  |  |  |

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to eyes, respiratory system and skin

Sensitization No information available

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component  | CAS No   | IARC                      | NTP        | ACGIH      | OSHA       | Mexico     |
|--|--|---------------------------|------------|------------|------------|------------|
| Dichlorobis(triphenylph<br>osphine)palladium                       | 13965-03-2   | Not listed                | Not listed | Not listed | Not listed | Not listed |
| Mutagenic Effects  |  | No information ava        | ailable    |            |            |            |
| Reproductive Effects   |  | No information available. |            |            |            |            |
| Developmental Effects  |  | No information available. |            |            |            |            |
| Teratogenicity   |  | No information available. |            |            |            |            |
| STOT - single expos<br>STOT - repeated exp                         |  | None known<br>None known  |            |            |            |            |
| Aspiration hazard  |  | No information available  |            |            |            |            |
| Symptoms / effects,both acute and No information available delayed |  |                           |            |            |            |            |
| Endocrine Disruptor  | r Information  | No information available  |            |            |            |            |
| Other Adverse Effect   | Other Adverse Effects The toxicological properties have not been fully investigated. |                           |            |            |            |            |
| 12. Ecological information   |  |                           |            |            |            |            |

#### **Ecotoxicity**

Do not empty into drains. .

Waste Disposal Methods

| Persistence and Degradability        | Insoluble in water  |
|--------------------------------------|---|
| <b>Bioaccumulation/ Accumulation</b> | No information available.   |
| Mobility                             | Is not likely mobile in the environment due its low water solubility. |
|                                      | 13. Disposal considerations   |

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

|                              | 14. Transport information |  |
|------------------------------|---------------------------|--|
| DOT                          | Not regulated             |  |
| DOT<br>_ <u>TDG</u><br>IATA_ | Not regulated             |  |
| IATA                         | Not regulated             |  |
| IMDG/IMO                     | Not regulated             |  |
| 15. Regulatory information   |                           |  |

#### United States of America Inventory

| Component                                    | CAS No     | TSCA | TSCA Inventory notification -<br>Active-Inactive | TSCA - EPA Regulatory<br>Flags |
|--|------------|------|--|--------------------------------|
| Dichlorobis(triphenylphosphine)pal<br>ladium | 13965-03-2 | -    | -  | -                              |

#### Legend:

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

#### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component                          | CAS No     | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|------------------------------------|------------|-----|------|-----------|-------|------|------|------|-------|------|
| Dichlorobis(triphenylphosphine)pal | 13965-03-2 | -   | -    | 237-744-2 | Х     | -    | Х    | -    | -     | -    |
| ladium                             |            |     |      |           |       |      |      |      |       |      |

**KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

#### U.S. Federal Regulations

| SARA 313  | Not applicable                     |
|---|------------------------------------|
| SARA 311/312 Hazard Categories                              | See section 2 for more information |
| CWA (Clean Water Act)                                       | Not applicable                     |
| Clean Air Act   | Not applicable                     |
| <b>OSHA</b> - Occupational Safety and Health Administration | Not applicable                     |

| CERCLA   | Not applicable  |  |  |  |
|--|---|--|--|--|
| California Proposition 65  | This product does not contain any Proposition 65 chemicals. |  |  |  |
| U.S. State Right-to-Know<br>Regulations  | Not applicable  |  |  |  |
| <b>U.S. Department of Transportation</b><br>Reportable Quantity (RQ):<br>DOT Marine Pollutant<br>DOT Severe Marine Pollutant | N<br>N<br>N   |  |  |  |
| U.S. Department of Homeland<br>Security  | This product does not contain any DHS chemicals.            |  |  |  |
| Other International Regulations  |   |  |  |  |
| Mexico - Grade   | No information available                                    |  |  |  |
| Authorisation/Restrictions according to EU REACH   |   |  |  |  |

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

| Component                                    | CAS No     | OECD HPV  | Persistent Organic<br>Pollutant  | Ozone Depletion<br>Potential  | Restriction of<br>Hazardous<br>Substances (RoHS) |
|--|------------|---|--|-------------------------------|--|
| Dichlorobis(triphenylphosphin<br>e)palladium | 13965-03-2 | Not applicable  | Not applicable   | Not applicable                | Not applicable                                   |
| Component                                    | CAS No     | Seveso III Directive<br>(2012/18/EC) -<br>Qualifying Quantities<br>for Major Accident<br>Notification | Seveso III Directive<br>(2012/18/EC) -<br>Qualifying Quantities<br>for Safety Report<br>Requirements | Rotterdam<br>Convention (PIC) | Basel Convention<br>(Hazardous Waste)            |
| Dichlorobis(triphenylphosphin<br>e)palladium | 13965-03-2 | Not applicable  | Not applicable   | Not applicable                | Not applicable                                   |

| 16. Other information  |  |  |  |
|--|--|--|--|
| Prepared By  | Regulatory Affairs<br>Thermo Fisher Scientific<br>Email: EMSDS.RA@thermofisher.com   |  |  |
| Creation Date<br>Revision Date<br>Print Date<br>Revision Summary | 26-Sep-2009<br>25-Dec-2021<br>25-Dec-2021<br>This document has been updated to comply with the US OSHA HazCom 2012 Standard<br>replacing the current legislation under 29 CFR 1910.1200 to align with the Globally<br>Harmonized System of Classification and Labeling of Chemicals (GHS). |  |  |

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

## **End of SDS**