

# TCI AMERICA SAFETY DATA SHEET

Revision number: 2 Revision date: 10/06/2014

# 1. IDENTIFICATION

**Product name:** Dichloro(1,5-cyclooctadiene)palladium(II)

Product code: D2604

**Product use:** For laboratory research purposes. **Restrictions on use:** Not for drug or household use.

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TCI America

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# 2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Skin Corrosion/Irritation [Category 2]

Eye Damage/Irritation [Category 2A]

Signal word: Warning!

Hazard Statement(s): Causes serious eye irritation

Causes skin irritation

# Pictogram(s) or Symbol(s):



Precautionary Statement(s):

[Prevention] Wash hands and face thoroughly after handling. Wear protective gloves. Wear eye and face protection. [Response] If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off

contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical

advice or attention.

[Storage] None [Disposal] None

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Substance

Components: Dichloro(1,5-cyclooctadiene)palladium(II)

 $\begin{array}{lll} \textbf{Percent:} & > 98.0\%(T) \\ \textbf{CAS Number:} & 12107-56-1 \\ \textbf{Molecular Weight:} & 285.50 \\ \textbf{Chemical Formula:} & C_8H_{12}Cl_2Pd \\ \end{array}$ 

Synonyms: 1,5-Cyclooctadienepalladium(II) Dichloride

# 4. FIRST-AID MEASURES

Inhalation: Call a poison center or doctor if you feel unwell. Move victim to fresh air. Give artificial respiration if victim

is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat

symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and

take precautions to protect themselves.

If skin irritation occurs get medical advice/attention. Remove and wash contaminated clothing before re-Skin contact: use. In case of contact with substance, immediately flush skin with running water for at least 20 minutes.

Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s)

involved and take precautions to protect themselves.

Eye contact: IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Contact with

material may irritate or burn eyes. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s)

involved and take precautions to protect themselves.

Ingestion: Do not induce vomiting with out medical advice. If swallowed, seek medical advice immediately and show the container or label. Do not use mouth-to-mouth method if victim ingested the substance; give artificial

respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the

material(s) involved and take precautions to protect themselves.

Symptoms/effects:

Redness. Acute:

No data available Delayed:

If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the Immediate medical attention:

injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect

themselves

#### 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, CO<sub>2</sub>, sand, earth, water spray or regular foam Consult with local fire authorities before

attempting large scale fire fighting operations.

Specific hazards arising from the chemical

**Hazardous combustion products:** These products include: Carbon oxides Halogenated compounds Metallic oxides

Other specific hazards: WARNING: Highly toxic HCl gas is produced during combustion.

## Special precautions for fire-fighters:

Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. Containers may explode when heated. Move containers from fire area if you can do it without risk.

## Special protective equipment for fire-fighters:

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

## 6. ACCIDENTAL RELEASE MEASURES

Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Do not touch Personal precautions:

damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation.

Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Dust Personal protective equipment:

respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves

Prevent dust cloud. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the **Emergency procedures:** 

area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or

confined areas; dike if needed.

# Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material. **Environmental precautions:** 

Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

# 7. HANDLING AND STORAGE

Precautions for safe handling: Avoid inhalation of vapor or mist. Avoid contact with skin and eyes. Good general ventilation should be

sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep

away from sources of ignition.

Conditions for safe storage: Keep only in the original container in a cool well-ventilated place. Keep away from incompatibles.

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store under inert gas (e.g. Argon). Hygroscopic material, store in a tightly

sealed container.

Storage incompatibilities: Store away from oxidizing agents

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits:** No data available

# Appropriate engineering controls:

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

#### Personal protective equipment

Respiratory protection: Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.

Hand protection: Nitrile gloves. Eye protection: Safety glasses. Skin and body protection: Lab coat.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Solid

Form: Crystal - Powder

Color: Pale yellow - Reddish yellow

No data available Odor: Odor threshold: No data available

Melting point/freezing point: 210°C (dec.) (410°F) No data available pH: No data available No data available Boiling point/range: Vapor pressure: **Decomposition temperature:** No data available Vapor density: No data available Relative density: No data available **Dynamic Viscosity:** No data available

**Kinematic Viscosity:** No data available

No data available Partition coefficient: **Evaporation rate:** No data available

n-octanol/water (log Pow) (Butyl Acetate = 1)

No data available No data available Flash point: Autoignition temperature:

Flammability (solid, gas): No data available Flammability or explosive limits:

> Lower: No data available No data available Upper:

Solubility(ies):

Water: Insoluble

Soluble: Dichloromethane

# 10. STABILITY AND REACTIVITY

Reactivity:

**Chemical Stability:** Stable under recommended storage conditions. (See Section 7)

**Possibility of Hazardous Reactions:** No hazardous reactivity has been reported.

Conditions to avoid: Avoid excessive heat and light. Moisture, Oxidizing agents Incompatible materials:

**Hazardous Decomposition Products:** No data available

# 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity:** 

No data available

Skin corrosion/irritation:

No data available

Serious eye damage/irritation:

No data available

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:

No data available

Carcinogenicity:

No data available

IARC: No data available NTP: No data available OSHA: No data available

Reproductive toxicity:

No data available

Routes of Exposure: Inhalation, Eye contact, Ingestion, Skin contact.

Symptoms related to exposure:

Skin contact may result in inflammation; characterized by itching, scaling, reddening, or occasionally blistering. Skin contact may result in redness, pain or dry skin. Eye contact may result in redness or pain.

**Potential Health Effects:** 

Skin and eye contact may result in irritation.

Target organ(s): No data available

# 12. ECOLOGICAL INFORMATION

**Ecotoxicity** 

Fish: No data available
Crustacea: No data available
Algae: No data available

Persistence and degradability:
Bioaccumulative potential (BCF):
Mobillity in soil:
Partition coefficient:
No data available
No data available
No data available

n-octanol/water (log Pow) Soil adsorption (Koc):

Soil adsorption (Koc):

Henry's Law:

No data available

No data available

constant (PaM³/mol)

13. DISPOSAL CONSIDERATIONS

Disposal of product:

Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a

chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains,

water ways, or the soil.

**Disposal of container:** Dispose of as unused product. Do not re-use empty containers.

Other considerations: Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

**DOT (US)** Non-hazardous for transportation.

IATA Non-hazardous for transportation.

IMDG Non-hazardous for transportation.

#### 15. REGULATORY INFORMATION

### **Toxic Substance Control Act (TSCA 8b.):**

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

#### **US Federal Regulations**

**CERCLA Hazardous substance and Reportable Quantity:** 

SARA 313: Not Listed SARA 302: Not Listed

**State Regulations** 

State Right-to-Know

MassachusettsNot ListedNew JerseyNot ListedPennsylvaniaNot ListedCalifornia Proposition 65:Not Listed

Other Information

NFPA Rating: HMIS Classification:

 Health:
 1
 Health:
 1

 Flammability:
 0
 Flammability:
 0

 Instability:
 0
 Physical:
 0

International Inventories

WHMIS hazard class: D2B: Materials causing other toxic effects. (Toxic)

 Canada: NDSL
 On NDSL

 EC-No:
 235-161-8

# 16. OTHER INFORMATION

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TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.