


# MATERIAL SAFETY DATA SHEET

## Palladium (II) Chloride

<b>NFPA</b> 	<b>HMIS</b> <table border="1"><tr><td>HEALTH</td><td style="text-align: center;">3</td></tr><tr><td>FLAMMABILITY</td><td style="text-align: center;">0</td></tr><tr><td>REACTIVITY</td><td style="text-align: center;">0</td></tr><tr><td>PERSONAL PROTECTION</td><td style="text-align: center;">J</td></tr></table>	HEALTH	3	FLAMMABILITY	0	REACTIVITY	0	PERSONAL PROTECTION	J
HEALTH	3								
FLAMMABILITY	0								
REACTIVITY	0								
PERSONAL PROTECTION	J								

### 1. Product And Company Identification

<b>Supplier</b> Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States  Company Contact: Joseph Fittos III Telephone Number: 410-398-7200 FAX Number: 410-398-2918 E-Mail: jfittos@colonialmetals.com Web Site: colonialmetals.com	<b>Manufacturer</b> Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States  Company Contact: Joseph Fittos III Telephone Number: 410-398-7200 FAX Number: 410-398-2918 E-Mail: jfittos@colonialmetals.com Web Site: colonialmetals.com
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<b>Supplier Emergency Contacts &amp; Phone Number</b> Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887	<b>Manufacturer Emergency Contacts &amp; Phone Number</b> Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887
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**Issue Date:** 03/04/2009

**Product Name:** Palladium (II) Chloride  
**Chemical Name:** Palladium (II) Chloride, Palladous Chloride  
**CAS Number:** 7647-10-1  
**Chemical Family:** Platinum Group Metal Salts  
**Chemical Formula:** PdCl<sub>2</sub>  
**MSDS Number:** 5001  
**Product Code:** 5001

**Synonyms**  
Palladium (II) Chloride, Palladous Chloride

### 2. Composition/Information On Ingredients

Ingredient Name	CAS Number	Percent Of Total Weight
Palladium Chloride	7647-10-1	99 - 100

### EMERGENCY OVERVIEW

**Irritant.**

To the best of our knowledge the chemical, physical, and toxicological properties of this compound have not been thoroughly investigated.

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## Palladium (II) Chloride

### Hazards Identification (Pictograms)



### 3. Hazards Identification

#### Primary Routes(s) Of Entry

Eye: Likely  
Inhalation: Likely  
Skin: Likely  
Ingestion: Likely

#### Eye Hazards

May cause irritation.

#### Skin Hazards

May cause irritation. May be harmful if absorbed through the skin.

#### Ingestion Hazards

Toxic if swallowed.

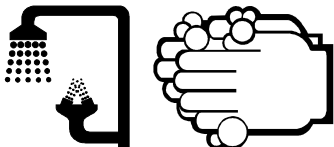
#### Inhalation Hazards

May cause respiratory tract irritation. May be harmful if inhaled.

#### Conditions Aggravated By Exposure

May cause irritation of the respiratory system. Maintain housekeeping and personal hygiene to minimize exposure and prevent sensitization.

### First Aid (Pictograms)



### 4. First Aid Measures

#### Eye

Flush for 15 minutes with plenty of water. If discomfort occurs or persists, contact a physician immediately.

#### Skin

Wash with soap and copious amounts of water. If discomfort occurs or persists, contact a physician immediately. Remove contaminated clothing and shoes and wash before reuse.

#### Ingestion

If swallowed, wash out mouth with water provided victim is conscious. Never give anything by mouth to an unconscious person. Contact a physician immediately.

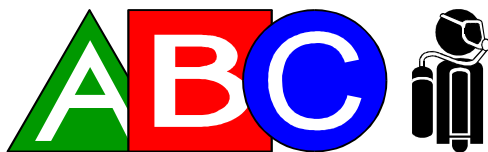
#### Inhalation

Remove to fresh air immediately. If victim is not breathing perform artificial respiration. Contact a physician immediately.

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## Palladium (II) Chloride

### Fire Fighting (Pictograms)



### 5. Fire Fighting Measures

**Flash Point:** NA °C

**Autoignition Point:** NA °C

**Flammability Class:** NA

#### **Fire And Explosion Hazards**

Use proper safety equipment. Can decompose to emit toxic chlorine gas.

#### **Extinguishing Media**

Use water spray, foam, dry chemical, carbon dioxide or medium for primary source.

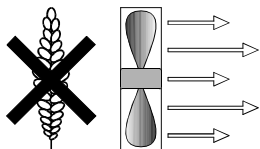
#### **Fire Fighting Instructions**

Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

### 6. Accidental Release Measures

Sweep or soak up and place in sealed container; Taking care to avoid dusting. Person protected with full face shield, heavy rubber gloves, and NIOSH approved respirator and cartridge for dust. Ventilate area and wash spill site after pick-up is complete.

### Handling & Storage (Pictograms)



### 7. Handling And Storage

#### **Handling Precautions**

Avoid formation of dust and aerosols. Avoid contact with eyes, prolonged or repeated contact with skin. Avoid breathing dust. Use with proper ventilation.

#### **Storage Precautions**

Keep in a tightly sealed container in a cool, dry, well ventilated place.

#### **Work/Hygienic Practices**

Use good personal hygiene. Wash thoroughly with soap and water after handling.

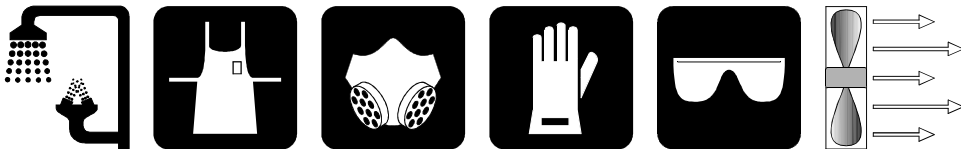
#### **Other Precautions**

0.01 ppm high efficiency particular respirator/supplied air respirator/self-contained breathing apparatus; 0.2 ppm same as above with full face piece; 1 ppm powdered air purifying respirator with high efficiency filter/type C supplied air respirator operated in pressure demand mode. Store in a sealed container, plastic or plastic liner, in a cool, well ventilated, dry area away from volatile acids.

# MATERIAL SAFETY DATA SHEET

## Palladium (II) Chloride

### Protective Clothing (Pictograms)



### 8. Exposure Controls/Personal Protection

#### Engineering Controls

Ventilation: Local Exhaust: Required in handling area  
Mechanical: Desirable to insure concentration of material below TLV/TWA levels  
Other: Closed Ventilation system - dust (Laboratory Fume Hood)

Safety shower and eyewash

#### Eye/Face Protection

ANSI approved safety glasses/goggles, full face shield.

#### Skin Protection

Rubber/Neoprene (use compatible chemical-resistant gloves).

#### Respiratory Protection

NIOSH approved chemical cartridge respirator for particulates and dust, if there is potential for airborne exposure to exceed established threshold values, or self-contained breathing apparatus with full face shield.

#### Other/General Protection

Lab coat/apron, flame and chemical resistant protective clothing, eye wash, safety shower, and hygiene facilities for washing.

### 9. Physical And Chemical Properties

#### Appearance

Brown crystals/powder

#### Odor

Slight odor of hydrogen chloride

**Chemical Type:** Mixture

**Physical State:** Solid

**Melting Point:** 1252-1256 °F 678-680 °C

**Boiling Point:** Decomposes °C

**Specific Gravity:** 4.0

**Molecular Weight:** 177.31

**Solubility:** Soluble

### 10. Stability And Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will not occur

#### Conditions To Avoid (Stability)

Elevated temperatures

#### Incompatible Materials

Oxidizing agents.

# MATERIAL SAFETY DATA SHEET

## Palladium (II) Chloride

### 10. Stability And Reactivity - Continued

#### Hazardous Decomposition Products

Hydrogen chloride gas.

### 11. Toxicological Information

#### Acute Studies

LD50: oral- rat- 2704 mg/kg

LD50: oral- mouse- >1000 mg/kg

LD50: oral- rat- 200 mg/kg

#### Skin Effects

Rabbit: mild skin irritation- 24h- Draize Test

May cause allergic skin reaction.

#### Subchronic (Target Organ Effects)

BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)  
LUNGS, THORAX OR RESPIRATION (TUMORS)BLOOD (LEUKEMIA)PATERAL EFFECTS  
(SPERMATOGENESIS)PATERAL EFFECTS (TESTES, EPIDIDYMIS, SPERM DUCT)TUMORIGENIC  
CARCINOGENIC BY RTECS CRITERIA)ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL  
SUBSTANCES(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FORCOMPLETE  
INFORMATION.

#### Chronic/Carcinogenicity

Carcinogenicity: Mouse- oral

Tumorigenic: Carcinogenic by RTECS criteria. Lungs, thorax, or respiration: Tumors, Blood:Tumors

#### Reproductive Effects

Rat: Intratesticular

Paternal Effects: Spermatogenesis )including genetic material, sperm morphology, motility, and count).

Paternal Effects: Testes, epididymis, sperm duct.

Mouse: Subcutaneous

Paternal Effects: Testes, epididymis, sperm duct.

Genotoxicity in vitro: human- lymphocyte

DNA inhibition

### 12. Ecological Information

No Data Available...

### 13. Disposal Considerations

Consult Federal EPA, State and local regulations for proper disposal/recycle/reclamation

NOTE: Chemical additions, processing, or otherwise altering this material may make the waste management information presented above incomplete, inaccurate, or otherwise inappropriate.

### 14. Transport Information

#### Proper Shipping Name

Non-Hazardous

#### Additional Shipping Paper Description

IATA: Non-hazardous for shipping. Consult IATA regulations before shipping.

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## Palladium (II) Chloride

### 15. Regulatory Information

#### U.S. Regulatory Information

This product is TSCA listed.

#### Canadian Regulatory Information

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

#### European Union (EU) Regulatory Information

Symbol of Danger: Xi

Indication of Danger: Irritant.

R: 37/38-41-43

Risk Statements: Irritating to respiratory system and skin. Risk of serious damage to eyes. May cause sensitization by skin contact.

S: 26-36/37/39

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection.

#### DSCL - Europe (Pictograms)



### 16. Other Information

#### NFPA Rating

Health: 3

Fire: 0

Reactivity: 0

#### HMIS Rating

Health: 3

Fire: 0

Reactivity: 0

Personal Protection: J

#### Revision/Preparer Information

MSDS Preparer: Joseph J. Fittos III

MSDS Preparer Phone Number: 410-398-7200

This MSDS Supercedes A Previous MSDS Dated: 05/09/2003

#### Disclaimer

In compliance with the OSHA Hazard Communication Standard, 29 C.F.R 1910.1200, we are providing you with a Materials Safety Data Sheet (MSDS) for the hazardous material you are purchasing.

It is your responsibility to educate your employees on the safe use of the hazardous material. With this in mind, a copy should be forwarded to the supervisor of the user or to the user themselves, and copy should be retained in your files for future reference.

Colonial Metals, Inc. makes no presentation as to the accuracy of the information in the MSDS. The information is believed to be correct; however, you (the customer), should perform your own investigation and independent verification. If you resell the product, you are responsible to forward the information in the MSDS to your

# **MATERIAL SAFETY DATA SHEET**

## **Palladium (II) Chloride**

<b>Disclaimer - Continued</b>
customer. Colonial Metals, Inc.

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