

# MATERIAL SAFETY DATA SHEET

## Dichlorotris(triphenylphosphine) Ruthenium (II)

| 1. Product And Company Identification   |  |   |                         |
|---|--|---|-------------------------|
| <b>Supplier</b><br>Colonial Metals, Inc.<br>Building 20<br>505 Blue Ball Road<br>Elkton, MD 21921 United States<br><br>Company Contact: Michael Doss - Dir. of Regulatory Affairs<br>Telephone Number: 410-398-7200<br>FAX Number: 410-398-2918<br>E-Mail: mdoss@colonialmetals.com<br>Web Site: www.colonialmetals.com |  | <b>Manufacturer</b><br>Colonial Metals, Inc.<br>Building 20<br>505 Blue Ball Road<br>Elkton, MD 21921 United States<br><br>Company Contact: Michael Doss - Dir. of Regulatory Affairs<br>Telephone Number: 410-398-7200<br>FAX Number: 410-398-2918<br>E-Mail: mdoss@colonialmetals.com<br>Web Site: www.colonialmetals.com |                         |
| <b>Supplier Emergency Contacts &amp; Phone Number</b><br>Chemtrac: 800-424-9300<br>World Wide - Call COLLECT to U.S: 703-527-3887   |  | <b>Manufacturer Emergency Contacts &amp; Phone Number</b><br>Chemtrac: 800-424-9300<br>World Wide - Call COLLECT to U.S: 703-527-3887   |                         |
| Issue Date: 08/09/2004<br>Product Name: Dichlorotris(triphenylphosphine) Ruthenium (II)<br>CAS Number: 15529-49-4<br>Chemical Family: Metal-phosphine Complexes<br>Chemical Formula: RuCl <sub>2</sub> ((C <sub>6</sub> H <sub>5</sub> )P) <sub>3</sub><br>MSDS Number: 8012<br>Product Code: 8012                      |  |   |                         |
| 2. Composition/Information On Ingredients   |  |   |                         |
| Ingredient Name   |  | CAS Number  | Percent Of Total Weight |
| Dichlorotris(triphenylphosphine) Ruthenium (II)   |  | 15529-49-4  | 100                     |
| 3. Hazards Identification   |  |   |                         |
| <b>Primary Routes(s) Of Entry</b><br>Ingestion: Likely  |  |   |                         |
| <b>Eye Hazards</b><br>Irritation  |  |   |                         |
| <b>Skin Hazards</b><br>Irritation   |  |   |                         |
| <b>Ingestion Hazards</b><br>No information is available on the physiological effects of ingestion   |  |   |                         |
| <b>Inhalation Hazards</b><br>May be irritating to the nose, mucous membranes, and respiratory tract   |  |   |                         |
| <b>Conditions Aggravated By Exposure</b><br>Irritating to skin, eyes, mucous membranes, and respiratory tract.  |  |   |                         |
| <b>Conditions Aggravated By Overexposure</b><br>To the best of our knowledge, the chemical, the physical, and toxicological properties have not been thoroughly investigated.   |  |   |                         |

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### 4. First Aid Measures

#### Eye

Flush area for 15 minutes with water and wash with soap and water. If discomfort occurs or persists, contact a physician. Remove contaminated clothing and shoes and wash before reuse.

#### Skin

Flush area for 15 minutes with water and wash with soap and water. If discomfort occurs or persists, contact a physician. Remove contaminated clothing and shoes and wash before reuse.

#### Ingestion

Seek medical attention immediately. Keep victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

#### Inhalation

Remove to fresh air immediately. If discomfort occurs or persists, contact a physician.

### 5. Fire Fighting Measures

**Flash Point Method:** NA

**Flammability Class:** NA

#### Fire And Explosion Hazards

Use proper safety equipment. Can decompose to emit irritating fumes

#### Extinguishing Media

Carbon dioxide, foam, dry chemical

#### Fire Fighting Instructions

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

### 6. Accidental Release Measures

Small spills can be mixed with vermiculite or sodium carbonate and swept up

### 7. Handling And Storage

#### Handling And Storage Precautions

Store in a tightly sealed container. Keep away from heat and direct sunlight.

### 8. Exposure Controls/Personal Protection

#### Engineering Controls

If possible, handle the material in an efficient fume hood.

#### Eye/Face Protection

ANSI approved safety glasses/goggles

#### Skin Protection

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

#### Respiratory Protection

None required

#### Other/General Protection

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

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### 9. Physical And Chemical Properties

**Appearance**

Black xtl.

**Chemical Type:** Mixture

**Physical State:** Solid

**Melting Point:** NA °C

**Boiling Point:** NA °C

**Specific Gravity:** NA

**Molecular Weight:** 958.85

**Vapor Pressure:** NA

**Vapor Density:** NA

**Solubility:** Insoluble

**Evaporation Rate:** NA

### 10. Stability And Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will not occur

**Conditions To Avoid (Stability)**

Prolonged contact with air

**Incompatible Materials**

Strong oxidizing agents

**Hazardous Decomposition Products**

Carbon dioxide, carbon monoxide, organic fumes, hydrogen chloride, ruthenium compounds

### 11. Toxicological Information

No Data Available...

### 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

No Data Available...

### 15. Regulatory Information

No Data Available...

### 16. Other Information

**Revision/Preparer Information**

**MSDS Preparer:** Wayne Sher

**MSDS Preparer Phone Number:** 410-398-7200

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### 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 customer.

Colonial Metals, Inc.

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