

Safety Data Sheet

29 CFR 1910.1200

Section 1: Company and Product Identification

Product Name: Methanesulfonato(2-di-t-butylphosphino-2',4',6'-tri-i-propyl-1,1'-biphenyl)(2'-amino-1,1'-biphenyl-2-yl)Pd(II), [t-BuXPhos Palladacycle]

Product Code: 5140

CAS #: 1447963-75-8

Company: Colonial Metals, Inc.
 Building 20
 505 Blue Ball Road
 Elkton, MD 21921 United States
 Company Contact: EHS Director
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www.colonialmetals.com

Emergency Response: For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC

+1 703-741-5970 / 1-800-424-9300 CCN 5252

Section 2: Hazards Identification

GHS07

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Hazard Pictograms:



Signal Word: Warning

Hazard Category: Skin corrosion/irritation Cat 2
 Serious eye damage/eye irritation Cat 2
 Specific target organ tox, single exp. Cat 3 (resp irrit)

Hazard Statements: H315: Causes skin irritation
 H319: Causes serious eye irritation
 H335: May cause respiratory irritation

Precautionary Statements: P202: Do not handle until all safety precautions have been read and understood
 P262: Do not get in eyes, on skin, or on clothing
 P264: Wash thoroughly after handling
 P280: Wear protective gloves/protective clothing/eye protection/face protection
 P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove
 P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position
 P403+233: Store in a well ventilated place. Keep container tightly closed
 P501: Dispose of contents/container in accordance with local/national/international rules.

Hazards not otherwise classified:

Not applicable, none known. The toxicological properties of this material have not been fully investigated.

Section 3: Composition / Information on Ingredients

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Methanesulfonato(2-di-t-butylphosphino-2',4',6'-tri-i-propyl-1,1'-biphenyl)(2'-amino-1,1'-biphenyl-2-yl)Pd(II), [t-BuXPhos Palladacycle]	Irritant	1447963-75-8	99 - 100
Chemical Family: Organometallic Compound in organic solvent Chemical Formula: C ₄₂ H ₅₈ N ₃ PPdS			

Section 4: First Aid Measures

General Info: Ensure proper ventilation.

Notable Exposure symptoms: Irritation to skin, eyes and areas of contact.

If ingested: Rinse mouth. Seek immediate medical attention. Clear the airway and administer artificial respiration if not breathing.

If swallowed, do not induce vomiting unless directed to do so by medical personnel.

If inhaled: Remove the victim from the contaminated area while protecting yourself from exposure by wearing an appropriate respirator. Put a similar respirator on the victim if possible. Get medical attention immediately.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Get medical attention if irritation develops or persists.

Skin contact: Take off immediately all contaminated clothing. Rinse with water thoroughly. Get medical advice if irritation develops or persists.

Additional Info: Observe for any symptoms for several hours after exposure. Follow up with medical attention if symptoms develop.

Section 5: Fire Fighting Measures

General Info: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing Method / Equipment: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Hazardous Decomposition Info: Hazardous decomposition products formed under fire conditions: Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Oxides of phosphorus. Firefighters should wear self-contained breathing apparatus and full protective gear.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing dust. Ventilate area if easy to do so. Contact local authorities if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Containment Equipment and Procedures: Large Spills: Contain actively spilling material if safe and easy to do so, avoid generating dust. Collect material and dispose. Contain and/or absorb spill with inert material (e.g. sand, vermiculite).

Small Spills: Wash and collect to waste receptacles.

Cleanup Procedures: Collect all contaminated media, or other cleanup materials into a waste receptacle. If cleaning surface is necessary, utilize vacuum cleaner, provided adequate ventilation is available.

Section 7: Handling and Storage

Safe Handling Precautions: Do not handle until all safety precautions have been read and understood. Keep container tightly closed in a dry and well-ventilated place. Handle under inert gas. Protect from moisture.

Storage class (TRGS 510): 13: Non Combustible Solids. Ensure adequate ventilation. Avoid breathing dust/vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment and wash thoroughly 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.

Recommendations for Storage: Store in cool, dry area in a tightly closed product container away from sources of ignition or flame. Do not store directly on ground.

Incompatibilities:

Section 8: Exposure Control / Personal Protection

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

Work Clothing: Protective work clothing which covers skin and prevents exposures.

Eye/face protection: Wear safety glasses with side shields or goggles or face shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Wear chemical resistant gloves, impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Utilize organic vapor respirator if airborne levels are not maintained or if ventilation is inadequate. For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Additional Information: Observe good chemical hygiene practices. Do not smoke or eat while using this product. Wash hands or exposed skin after using the product.

Section 9: Physical and Chemical Properties

State: Solid Powder	Melting Point: 130 - 140 °C	Freezing Point: N/A
Color: Yellow	Boiling Point/Range:	pH: N/A
Molecular Wt. 794.37	Odor: None	Water Solubility: No data available
Evaporation rate: No data available	Flash Point: No data available	Part. Coeff (n-octanol/water): No data available
Upper Flam Limits: No data available	Lower Flam Limits: No data available	Vapor Pressure: No data available
VOC Content (lbs/gal): No data available	Viscosity: No data available	Autoignition Temp: No data available

Section 10: Stability and Reactivity

General: Conditions To Avoid (Stability):
 This product is stable and non-reactive under normal conditions of use. Product is not subject to hazardous polymerization. Avoid open flame and ignition sources.

Incompatible materials: Strong oxidizing agents

Decomposition products: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides, Oxides of phosphorus.
Other decomposition products - no data available
Thermal decomposition: no data available

Section 11: Toxicological Information

General Information: No data available

Toxicological Information (product): Product has not been tested. Prolonged inhalation may be harmful to human health. Irritating in case of skin or eye contact. May be harmful if swallowed or in contact with skin.

Likely Routes of Exposure: Eye Contact
 Skin Contact
 Inhalation
 Ingestion - possible, but considered unlikely.

Toxicological Information (contained substances)

Carcinogenicity or mutagenicity: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Teratogenicity
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Sensitization: Product is not expected to be a sensitizer.

Other Notes: Acute Studies
Acute toxicity: no data available
Inhalation LC50: no data available
Dermal LD50: no data available
Other information on acute toxicity: no data available
Skin corrosion/irritation: no data available
Skin: no data available
Serious eye damage/eye irritation: no data available
Eyes: no data available
Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available
Potential health effects
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion: May be harmful if swallowed.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: May causes eye irritation.
Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

General information: Product not tested.

Aquatic toxicity: No specific data available. Do not allow large quantities of product to reach water, ground water, water courses or sewer systems.

Degradation / Mobility info: No specific data available.

Bioaccumulative potential: No specific data available.

Section 13: Disposal Information

Product disposal: Dispose of product in accordance with local, regional, and national regulations. Consult with waste contractor.

Container disposal: Treat empty containers with extra care. Consult waste contractor.

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

Section 14: Transport Information

DOT: Not dangerous goods, None, considered non-hazardous for transport

IMO/IMDG: Not dangerous goods, Non-Hazardous

IATA: Not dangerous goods, See regulation for information

OTHER: Inquire for further transport information.

Comments: None

Section 15: Regulatory Information

TSCA: All ingredients of this product are listed or are excluded from listing under the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

SARA 313 This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372

SARA 311/312 Acute Health Hazard, Chronic Health Hazard
Hazards

Canadian DSL: : All ingredients of this product comply with New Substances Notification requirements of the Canadian Environmental Protection Act (CEPA).

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

[(2-Di-tert-butylphosphino-2',4',6'-triisopropyl-1,1'-biphenyl)-2-(2'-amino-1,1'-biphenyl)]palladium(II) methanesulfonate, CAS-No. 1447963-75-8, Revision Date

New Jersey Right To Know Components

[(2-Di-tert-butylphosphino-2',4',6'-triisopropyl-1,1'-biphenyl)-2-(2'-amino-1,1'-biphenyl)]palladium(II) methanesulfonate, CAS-No. 1447963-75-8, Revision Date

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16: Other Information

NFPA Rating

Health: 1
Fire: 0
Reactivity: 0
Other: FL

HMIS Rating

Health: 1
Fire: 0
Reactivity: 0
Personal
Protection: C

Disclaimer: In compliance with the OSHA Hazard communication Standard, 29 C.F.R 1910.1200, we are providing you with a Safety Data Sheet (SDS) 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 representation as to the accuracy of the information in the SDS. The information is believe to be correct; however, you (the customer), should preform your own investigation and independent verification. If you resell the product, you are responsible to forward the information in the SDS to your customer.

Colonial Metals, Inc.

SDS Author: Colonial Metals Inc.- An Ames Goldsmith Company

Version Date:

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