

## Material Safety Data Sheet

Version 4.2

Revision Date 01/19/2011

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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Hydridotetrakis(triphenylphosphine)rhodium(I)

Product Number : 335088

Brand : Aldrich

Product Use : For laboratory research purposes.

Supplier : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Manufacturer : Sigma-Aldrich Corporation  
3050 Spruce St.  
St. Louis, Missouri 63103  
USA

Telephone : +18003255832

Fax : +18003255052

Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation  
Product Safety - Americas Region  
1-800-521-8956

## 2. HAZARDS IDENTIFICATION

## Emergency Overview

## OSHA Hazards

No known OSHA hazards

## GHS Classification

Skin irritation (Category 2)

Eye irritation (Category 2A)

Specific target organ toxicity - single exposure (Category 3)

## GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## HMIS Classification

Health hazard:

0

Flammability:

0

Physical hazards:

0

## NFPA Rating

Health hazard:

0

Fire:

0

Reactivity Hazard:

0

## Potential Health Effects

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | May be harmful if inhaled. May cause respiratory tract irritation.  |
| <b>Skin</b>       | May be harmful if absorbed through skin. May cause skin irritation. |
| <b>Eyes</b>       | May cause eye irritation.   |
| <b>Ingestion</b>  | May be harmful if swallowed.  |

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula :  $C_{72}H_{61}P_4Rh$   $C_{72}H_{61}P_4Rh$   
Molecular Weight : 1,153.06 g/mol

| CAS-No.  | EC-No. | Index-No. | Concentration |
|--|--------|-----------|---------------|
| <b>Hydridotetrakis(triphenylphosphine)rhodium(I)</b> |        |           |               |
| 18284-36-1   | -      | -         | -             |

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## 4. FIRST AID MEASURES

### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

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

### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

### Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Oxides of phosphorus, Rhodium/rhodium oxides

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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

### Environmental precautions

Do not let product enter drains.

### Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

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## 7. HANDLING AND STORAGE

### Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Air and moisture sensitive. Keep in a dry place.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

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).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Eye protection

Safety glasses with side-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 and body protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

|        |        |
|--------|--------|
| Form   | powder |
| Colour | yellow |

### Safety data

|  |   |
|--|---|
| pH                                     | no data available                                       |
| Melting/freezing point                 | Melting point/range: 140 - 146 °C (284 - 295 °F) - lit. |
| Boiling point                          | no data available                                       |
| Flash point                            | no data available                                       |
| Ignition temperature                   | no data available                                       |
| Autoignition temperature               | no data available                                       |
| Lower explosion limit                  | no data available                                       |
| Upper explosion limit                  | no data available                                       |
| Vapour pressure                        | no data available                                       |
| Density                                | no data available                                       |
| Water solubility                       | no data available                                       |
| Partition coefficient: n-octanol/water | no data available                                       |
| Relative vapour density                | no data available                                       |
| Odour                                  | no data available                                       |
| Odour Threshold                        | no data available                                       |

Evaporation rate      no data available

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## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

no data available

### Conditions to avoid

Air sensitive.

### Materials to avoid

Strong oxidizing agents Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Oxides of phosphorus, Rhodium/rhodium oxides

Other decomposition products - no data available

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## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Oral LD50

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

### Serious eye damage/eye irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

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

no data available

### Teratogenicity

no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | May be harmful if inhaled. May cause respiratory tract irritation.  |
| <b>Ingestion</b>  | May be harmful if swallowed.  |
| <b>Skin</b>       | May be harmful if absorbed through skin. May cause skin irritation. |
| <b>Eyes</b>       | May cause eye irritation.   |

**Signs and Symptoms of Exposure**

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

**Synergistic effects**

no data available

**Additional Information**

RTECS: Not available

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**12. ECOLOGICAL INFORMATION**

**Toxicity**

no data available

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

no data available

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**13. DISPOSAL CONSIDERATIONS**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION**

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

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**15. REGULATORY INFORMATION**

**OSHA Hazards**

No known OSHA hazards

**DSL Status**

This product contains the following components that are not on the Canadian DSL nor NDSL lists.

|   |                       |
|---|-----------------------|
| Hydridotetrakis(triphenylphosphine)rhodium(I) | CAS-No.<br>18284-36-1 |
|---|-----------------------|

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

No SARA Hazards

**Massachusetts Right To Know Components**

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

**Pennsylvania Right To Know Components**

|   |                       |               |
|---|-----------------------|---------------|
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|---|-----------------------|---------------|

**New Jersey Right To Know Components**

|   |                       |               |
|---|-----------------------|---------------|
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|---|-----------------------|---------------|

**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.

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**16. OTHER INFORMATION****Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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