

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Chloro(indenyl)bis(triphenylphosphine) ruthenium(II): sc-252579



MATERIAL SAFETY DATA SHEET

The Power to Question

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Chloro(indenyl)bis(triphenylphosphine)ruthenium(II)

Product Number: sc-252579

Supplier: Santa Cruz Biotechnology, Inc.

2145 Delaware Avenue Santa Cruz, CA 95060

800.457.3801 or 831.457.3800

Emergency: ChemWatch

Within the US & Canada: 877-715-9305

Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Carcinogen, Target Organ Effect, Harmful by ingestion., Irritant

Target Organs

Liver, pancreas, Blood, Central nervous system, Heart, Kidney

GHS Classification

Skin irritation (Category 2) Eye irritation (Category 2A) Carcinogenicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram



Signal word Warning

Hazard statement(s)

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.

Precautionary statement(s)

P281 Use personal protective equipment as required.

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: 2
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 1
NFPA Rating

Health hazard: 2
Fire: 0
Reactivity Hazard: 0

Potential Health Effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation. **Skin** Harmful if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation. **Ingestion** Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: C9H7•RuCl•2(C18H15P)

Molecular Weight: 776.25

CAS-No.	EC-No.	Index-No.	<u>Concentration</u>				
Methylene chloride							
75-09-2	200-838-9	602-004-00-3	-				
Acetone							
67-64-1	200-662-2	606-001-00-8	-				
Chloro(indenyl)bis(triphenylphosphine)ruthenium(II)							
99897-61-7	-	-	-				

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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.

5. FIREFIGHTING MEASURES

Conditions of flammability

Not flammable or combustible.

Suitable extinguishing media

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

Special protective equipment for firefighters

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, Hydrogen chloride gas, Ruthenium oxide

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

Prevent further leakage or spillage if safe to do so. 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.

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.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Handle and store under inert gas. Moisture sensitive. Desiccate at room temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis			
Remarks	Potential Oc	Potential Occupational Carcinogen See Appendix A					
Methylene chloride	75-09-2	TWA	50 ppm	USA. ACGIH Threshold Limit Values (TLV)			
	Biological Ex	Central Nervous System impairment Carboxyhemoglobinemia Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans					
	Substance listed; for more information see OSHA document 1910.1052						
	See 1910.1052						
Acetone	67-64-1	TWA	500 ppm	USA. ACGIH Threshold Limit Values (TLV)			
Remarks	Eye & Upper Respiratory Tract irritation Central Nervous System impairment Hematologic effects Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen						
		STEL	750 ppm	USA. ACGIH Threshold Limit Values (TLV)			
	Eye & Upper Respiratory Tract irritation Central Nervous System impairment Hematologic effects Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen						
		TWA	750 ppm 1,800 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000			
	The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors.						
		STEL	1,000 ppm 2,400 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000			
	The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors.						
		TWA	1,000 ppm 2,400 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants			
	The value in mg/m3 is approximate.						
		TWA	250 ppm 590 mg/m3	USA. NIOSH Recommended Exposure Limits			

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	solid	pН	no data available
Melting/freezing point	no data available	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	Vapor pressure	no data available
Density	no data available	Water solubility	no data available
Relative vapor density	no data available	Odor	no data available
Odor Threshold	no data available	Evaporation rate	no data available
Partition coefficient	no data available		

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n-octanol/water

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - Carbon oxides, Oxides of phosphorus,

Hydrogen chloride gas, Ruthenium oxide

Other decomposition products - no data available

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: 2B - Group 2B: Possibly carcinogenic to humans (Methylene chloride)

NTP: Reasonably anticipated to be a human carcinogen (Methylene chloride)

Reproductive toxicity

no data available

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

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion Harmful if swallowed.

Skin Harmful if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Synergistic effects no data available Additional Information RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity Persistence and degradability

no data available

Bioaccumulative potential
no data available

PBT and vPvB assessment
no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US) IMDG IATA

Not dangerous goods Not dangerous goods Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards

Carcinogen, Target Organ Effect, Harmful by ingestion., Irritant

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

Acute Health Hazard, Chronic Health Hazard Massachusetts Right To Know Components

Methylene chloride CAS-No.: 75-09-2 Acetone CAS-No.: 67-64-1

Pennsylvania Right To Know Components

Methylene chloride CAS-No.: 75-09-2
Acetone CAS-No.: 67-64-1
Chloro(indenyl)bis(triphenylphosphine)ruthenium(II) CAS-No.: 99897-61-7

New Jersey Right To Know Components

Methylene chloride CAS-No.: 75-09-2
Acetone CAS-No.: 67-64-1
Chloro(indenyl)bis(triphenylphosphine)ruthenium(II) CAS-No.: 99897-61-7

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

Methylene chloride CAS-No.: 75-09-2

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

7/10/2012