

SAFETY DATA SHEET

Creation Date 19-October-2010 Revision Date 28-December-2021 Revision Number 4

1. Identification

Product Name 1,2-Bis((2R,5R)-2,5-diisopropylphospholano)benzene(cyclooctadiene)

rhodium(I) tetrafluoroborate

Cat No.: AC435200000; AC435200500; AC435202500

Synonyms No information available

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Importer/Distributor Manufacturer

Fisher Scientific Acros Organics
112 Colonnade Road, One Reagent Lane
Ottawa, ON K2E 7L6, Fair Lawn, NJ 07410

Canada

Tel: 1-800-234-7437

Emergency Telephone Number For information US call: 001-800-ACROS-01 / Europe call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

Fisher Scientific Company

One Reagent Lane

Fair Lawn, NJ 07410

Tel: (201) 796-7100

2. Hazard(s) identification

Classification

WHMIS 2015 Classification Not classified under the Hazardous Products Regulations (SOR/2015-17)

Based on available data, the classification criteria are not met

Label Elements

None required

3. Composition/Information on Ingredients

| Component | CAS-No | Weight % | |
|--|-------------|----------|--|
| 1,2-Bis((2R,5R)-2,5-diisopropylphospholano)benze | 569650-64-2 | >95 | |

1,2-Bis((2R,5R)-2,5-diisopropylphospholano)benzene(c yclooctadiene)rhodium(I) tetrafluoroborate

ne(cyclooctadiene)rhodium(I) tetrafluoroborate

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention

immediately if symptoms occur.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attention if

symptoms occur.

Most important symptoms/effects None reasonably foreseeable. Symptoms of overexposure may be headache, dizziness,

tiredness, nausea and vomiting

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

Unsuitable Extinguishing Media No information available

Flash Point No information available

Method - No information available

Autoignition Temperature

Explosion Limits

No information available

Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO2). Oxides of boron. Hydrogen fluoride. Fluorine. Oxides of phosphorus.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

HealthFlammabilityInstabilityPhysical hazards110N/A

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust

formation.

Environmental Precautions Should not be released into the environment. See Section 12 for additional Ecological

Information.

Methods for Containment and Clean Sweep up and shovel into suitable containers for disposal. Avoid dust formation. **Up**

1.2-Bis((2R.5R)-2.5-diisopropylphospholano)benzene(c yclooctadiene)rhodium(I) tetrafluoroborate

| | 7. Handling and storage |
|----------|---|
| Handling | Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation. |

Keep containers tightly closed in a dry, cool and well-ventilated place. Store under an inert Storage.

atmosphere. Incompatible Materials. Water, Oxidizing agent.

8. Exposure controls / personal protection

This product does not contain any hazardous materials with occupational exposure **Exposure Guidelines**

limitsestablished by the region specific regulatory bodies.

Engineering Measures

None under normal use conditions.

Personal protective equipment

Wear appropriate protective eyeglasses or chemical safety goggles as described by **Eye Protection**

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

Hand Protection Wear appropriate protective gloves and clothing to prevent skin exposure.

| Glove material | Breakthrough time | Glove thickness | Glove comments |
|----------------|-------------------|-----------------|------------------------|
| Nitrile rubber | See manufacturers | - | Splash protection only |
| Viton (R) | recommendations | | |

Inspect gloves before use, observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection

No protective equipment is needed under normal use conditions.

Recommended Filter type: Particle filter

Environmental exposure controls

No information available.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

9. Physical and chemical properties

Physical State Solid

Orange - Brown **Appearance**

No information available Odor No information available **Odor Threshold** рΗ No information available Melting Point/Range No data available

Boiling Point/Range No information available Flash Point No information available

1,2-Bis((2R,5R)-2,5-diisopropylphospholano)benzene(c yclooctadiene)rhodium(I) tetrafluoroborate

Evaporation Rate Not applicable

Flammability (solid,gas)

No information available

Flammability or explosive limits

Upper No data available
Lower No data available
Vapor Pressure No information available
Vapor Density Not applicable

Specific GravityNo information availableSolubilityNo information availablePartition coefficient; n-octanol/waterNo data available

Autoignition TemperatureNo information availableDecomposition TemperatureNo information available

Viscosity Not applicable

Molecular Formula C26 H44 P2 . C8 H12 . B F4 . Rh

Molecular Weight 716.48

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under recommended storage conditions.

Conditions to Avoid Incompatible products. Excess heat. Avoid dust formation. Exposure to air. Exposure to

moisture.

Incompatible Materials Water, Oxidizing agent

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO2), Oxides of boron, Hydrogen fluoride,

Fluorine, Oxides of phosphorus

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product InformationNo acute toxicity information is available for this product

Oral LD50

Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Dermal LD50

Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Mist LC50

Based on ATE data, the classification criteria are not met. ATE > 5 mg/l.

Component Information

Toxicologically Synergistic No information available

Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure

 Irritation
 No information available

 Sensitization
 No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|-------------------------|-------------|------------|------------|------------|------------|------------|
| 1,2-Bis((2R,5R)-2,5-dii | 569650-64-2 | Not listed |
| sopropylphospholano) | | | | | | |
| benzene(cyclooctadien | | | | | | |
| e)rhodium(I) | | | | | | |
| tetrafluoroborate | | | | | | |

Mutagenic Effects No information available

1,2-Bis((2R,5R)-2,5-diisopropylphospholano)benzene(c yclooctadiene)rhodium(I) tetrafluoroborate

Reproductive Effects No information available.

Developmental Effects No information available.

No information available. **Teratogenicity**

STOT - single exposure None known STOT - repeated exposure None known

Aspiration hazard No information available

delayed

Symptoms / effects, both acute and Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Persistence and Degradability No information available

No information available. **Bioaccumulation/ Accumulation**

No information available. **Mobility**

13. Disposal considerations

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated Not regulated TDG Not regulated IATA IMDG/IMO Not regulated

15. Regulatory information

International Inventories

| Component | CAS-No | DSL | NDSL | TSCA | TSCA Inventory notification - Active-Inactive | EINECS | ELINCS | NLP |
|------------------------------------|-------------|-----|------|------|---|--------|--------|-----|
| 1,2-Bis((2R,5R)-2,5-diisopropylpho | 569650-64-2 | - | - | - | = | - | - | - |
| spholano)benzene(cyclooctadiene | | | | | | | | |
|)rhodium(I) tetrafluoroborate | | | | | | | | |

| Component | CAS-No | IECSC | KECL | ENCS | ISHL | TCSI | AICS | NZIoC | PICCS |
|------------------------------------|-------------|-------|------|------|------|------|------|-------|-------|
| 1,2-Bis((2R,5R)-2,5-diisopropylpho | 569650-64-2 | - | - | - | - | - | - | - | - |
| spholano)benzene(cyclooctadiene | | | | | | | | | |
|)rhodium(I) tetrafluoroborate | | | | | | | | | |

Legend:

X - Listed '-' - Not Listed

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

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DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

Other International Regulations

Authorisation/Restrictions according to EU REACH

Safety, health and environmental regulations/legislation specific for the substance or mixture

| Component | CAS-No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|---|--------|----------------|---------------------------------|------------------------------|--|
| 1,2-Bis((2R,5R)-2,5-diisoprop ylphospholano)benzene(cyclo octadiene)rhodium(I) tetrafluoroborate | | Not applicable | Not applicable | Not applicable | Not applicable |

| Component | CAS-No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|---|--------|---|--|-------------------------------|---------------------------------------|
| 1,2-Bis((2R,5R)-2,5-diisoprop ylphospholano)benzene(cyclo octadiene)rhodium(I) tetrafluoroborate | | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other information

Prepared By Regulatory Affairs

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Revision SummaryThis document has been updated to comply with the requirements of WHMIS 2015 to align

with the Globally Harmonised System (GHS) for the Classification and Labelling of

Chemicals.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS