



SAFETY DATA SHEET

Issue Date 01-Dec-2025 Revision Number 1.05

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name { [2-(Isopropoxy)-5-(N,N-dimethylaminosulfonyl)phenyl]methylene}

(tricyclohexylphosphine)ruthenium(II) Dichloride

Other means of identification

Product Code(s) 094-06401

Recommended use of the chemical and restrictions on use
Recommended Use For research use only.

Uses advised against Seek expert judgment when using for purposes other than those recommended.

Details of the supplier of the safety data sheet

Manufacturer Address Distributor

FUJIFILM Wako Pure Chemical Corporation FUJIFILM Irvine Scientific

1-2, Doshomachi 3-Chome, E. Warner Avenue, Santa Ana, CA 92705-5505, U.S.A.: +1 949 261 7800

Chuo-ku Osaka 540-8605, Japan Fax: +1 949 261 6522

Tel: +81-6-6203-3741 Fax: +81-6-6201-5964

2. HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Pictograms

Signal word None

Hazard statements

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Precautionary statements-(Prevention)

Not applicable

Precautionary statements-(Response)

Not applicable

Precautionary statements-(Storage)

Not applicable

Precautionary statements-(Disposal)

Not applicable

Others

Other hazards Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Substance

Formula C30H50Cl2NO3PRuS

| Chemical Name | Molecular weight | CAS RN | Weight-% |
|--------------------------------------------------|------------------|-------------|----------|
| { | 707.74 | 918871-44-0 | 80.0 |
| [2-(i-propoxy)-5-(N,N-dimethylaminosulfonyl)phen | | | |

yl]methylene} tricyclohexylphosphine)ruthenium(II) dichloride

Not applicable Impurities and/or Additives:

4. FIRST AID MEASURES

First aid measures

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper Eye contact

eyelids. Consult a physician.

Wash skin with soap and water. Skin contact

Inhalation Remove to fresh air.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician

or poison control center immediately. Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and delayed

No information available. **Symptoms**

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing media

Water spray (fog). Carbon dioxide (CO2). Foam. Extinguishing powder. Sand.

<u>Specific hazards arising from the chemical</u>
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion data

Sensitivity to Mechanical none.

Impact

Sensitivity to Static Discharge none.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions, protective

equipment and emergency

procedures

Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods and material for containment and cleaning up Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures Avoid contact with strong oxidizing agents.

Protective measures Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage conditions Keep container protect from light tightly closed. Store in a cool (2-10 °C) place. Packed

with an inert gas.

Packaging materials Glass.

Incompatible materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and handand eye-wash facility. And display their position clearly.

Exposure limits Not applicable

Personal protective equipment

Respiratory protection Dust mask (JIS T 8151)

Hand protection chemical protective gloves (JIS T 8116)

Eye protection protective eyeglasses or chemical safety goggles (JIS T 8147)

Skin and body protection Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Color dark purple crystals - powder **Appearance** no data available Odor no data available pН Melting point/freezing point no data available Boiling point, initial boiling point and boiling range no data available Flash point no data available no data available **Evaporation rate:** Flammability (solid, gas): no data available

Upper/lower flammability or

explosive limits

no data available Upper: no data available Lower: no data available Vapour pressure Vapour density no data available Specific Gravity / Relative density no data available **Solubilities** chloroform: soluble. n-Octanol/water partition coefficient:(log Pow) no data available **Auto-ignition temperature:** no data available **Decomposition temperature:** no data available Viscosity (coefficient of viscosity) no data available no data available Dynamic viscosity

Particle characteristics

no data available

10. STABILITY AND REACTIVITY

Stability

Chemical stability May be altered by light.
Reactivity no data available

Hazardous reactions

None under normal processing

Conditions to avoid

Extremes of temperature and direct sunlight

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Carbon monooxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Sulfur oxides (SOx), Phosphorus oxide, Halides, Metal oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity no data available

Skin irritation/corrosionno data availableSerious eye damage/ irritationno data availableRespiratory or skin sensitizationno data availableReproductive cell mutagenicityno data availableCarcinogenicityno data available

Reproductive toxicityno data availableSTOT-single exposureno data availableSTOT-repeated exposureno data availableAspiration hazardno data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility

no data available

Mobility in soilNo information availableOther DataNo information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastesDisposal should be in accordance with applicable regional, national and local laws and

regulations.

Precautionary including method of Disposal should be in accordance with applicable regional, national and local laws and **disposing contaminated packaging** regulations.

14. TRANSPORT INFORMATION

DOT Not regulated Not applicable

Proper shipping name: UN classfication Subsidiary hazard class

Packing group

Marine pollutant Not applicable

<u>IATA</u> Not regulated

UN/ID No Proper shipping name:

UN classfication Subsidiary hazard class

Packing group

Environmentally Hazardous Not applicable

Substance

IMDG Not regulated

UN/ID No -

Proper shipping name: UN classfication

Subsidiary hazard class

Packing group

Marine pollutant (Sea) Not applicable

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | CAS RN | Weight-% | SARA 313 - Threshold Values % |
|--------------------------------------------------------------------------------------------------------------------------------|--------|----------|----------------------------------|
| { [2-(i-propoxy)-5-(N,N-dimethylaminosulfonyl)phenyl]met hylene} tricyclohexylphosphine)ruthenium(II) dichloride - 918871-44-0 | | 80.0 | N/A |

SARA 311/312 Hazard Categories

| Acute health hazard | No |
|-----------------------------------|----|
| Chronic Health Hazard | No |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive

Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any chemicals regulated by Proposition 65

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration NumberNot applicable

16. OTHER INFORMATION

Issue Date 01-Dec-2025

Revision Note

No information available

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 Safety Data Sheet