

Material Safety Data Sheet

1. Identification of the substance

Product Name: [1,3-Bis(2,4,6-trimethylphenyl)-2-imidazolidinylidene] dichloro(2-isopropoxyphenylmethylene)ruthenium
CAS Number: 301224-40-8
Catalog number: A847557
Supplier: Amadis Chemical Co., Ltd.
Swatts Cosine.No.166.Xiangmao Road.310015.
Hangzhou,Zhejiang,P.R.China
Tel:0086-571-89925085 Fax:0086-571-89925065

2. Composition/information on ingredients.

Ingredient name: [1,3-Bis(2,4,6-trimethylphenyl)-2-imidazolidinylidene] dichloro(2-isopropoxyphenylmethylene)ruthenium
Molecular formula: C₃₁H₃₈Cl₂N₂ORu
Molecular weight: 626.62

Hazards identification

3.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

| | |
|-------------------------------------------------------------|------|
| Acute toxicity, oral(Category 4) | H302 |
| Skin corrosion/irritation(Category 2) | H315 |
| Serious eye damage/eye irritation(Category 2A) | H319 |
| Specific target organ toxicity, single exposure(Category 3) | H335 |
| No Resource File | |

3.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

| | |
|------|----------------------------------|
| H302 | Harmful if swallowed |
| 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. |
| P264 | Wash hands thoroughly after handling |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/protective clothing/eye protection/faceprotection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several |

minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

| | |
|-----------|----------------------------------------------------------------------|
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| P330 | Rinse mouth. |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to in accordance with local Regulation |

3.3 Associated risk phrases according to european directive 67/548/EEC



Hazard symbol(s)

R-phrases(s)

| | |
|-----|-----------------------------------|
| R22 | Harmful if swallowed. |
| R36 | Irritating to eyes. |
| R37 | Irritating to respiratory system. |
| R38 | Irritating to skin. |

S-phrases(s)

| | |
|-----------|-----------------------------------------------------------------------------------------------|
| S1 | Keep locked up. |
| S20/21 | When using do not eat, drink or smoke. |
| S23 | Do not breathe gas/fumes/vapour/spray. |
| S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S27 | Take off immediately all contaminated clothing. |
| S28 | After contact with skin, wash immediately with plenty of water. |
| S28B | After contact with skin, wash immediately with plenty of water and soap. |
| S36/37/39 | Wear suitable protective clothing, gloves and eye/face protection. |
| S44 | If you feel unwell, seek medical advice (show the label where possible). |
| S46 | If swallowed, seek medical advice immediately and show this container or label. |
| S51 | Use only in well-ventilated areas. |
| S61 | Avoid release to the environment. Refer to special instructions/Safety data sheets. |
| S7/9 | Keep container tightly closed and in a well-ventilated place |

4. First aid measures

| | |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin contact: | Immediately wash skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, seek medical attention. |
| Eye contact: | Immediately wash skin with copious amounts of water for at least 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. If irritation persists, seek medical attention. |

- Inhalation: Remove to fresh air. In severe cases or if symptoms persist, seek medical attention.
- Ingestion: Wash out mouth with copious amounts of water for at least 15 minutes. Seek medical attention.

5. Fire fighting measures

In the event of a fire involving this material, alone or in combination with other materials, use drypowder or carbon dioxide extinguishers. Protective clothing and self-contained breathing apparatus should be worn.

6. Accidental release measures

- Personal precautions: Wear suitable personal protective equipment which performs satisfactorily and meets local/state/national standards.
- Respiratory precaution: Wear approved mask/respirator
- Hand precaution: Wear suitable gloves/gauntlets
- Skin protection: Wear suitable protective clothing
- Eye protection: Wear suitable eye protection
- Methods for cleaning up: Mix with sand or similar inert absorbent material, sweep up and keep in a tightly closed container for disposal. See section 12.
- Environmental precautions: Do not allow material to enter drains or water courses.

7. Handling and storage

- Handling: This product should be handled only by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals, who should take into account the fire, health and chemical hazard data given on this sheet.
- Storage: Store in cool, well ventilated area. Keep container tightly closed.

8. Exposure Controls / PPE

- Engineering Controls: Use only in a chemical fume hood.
- Personal protective equipment: Wear chemical-resistant gloves, safety goggles.
- General hygiene measures: Wash thoroughly after handling. Wash contaminated clothing before reuse.

9. Physical and chemical properties

- Appearance : Solid
- Odor: Green
- Boiling point: Not available.
- Melting point: Not available.
- Flash point: Not available.
- Density: Not available.

10. Stability and reactivity

- Reactivity: no data
- Chemical stability: no data
- Possibility of hazardous reactions: no data
- Conditions to avoid: no data
- Incompatible materials: Strong oxidizing agents
- Hazardous decomposition products: Other decomposition products - no data available

11. Toxicological information

- Acute Toxicity: No data
- Skin corrosion/irritation: Irritant for skin and mucous membranes
- Serious eye Damage/irritation: Irritant effect

Respiratory or skin sensitization: No date

Germ Cell mutagenicity: No date

Carcinogenicity: No date

Reproductive toxicity: No date

STOT-single exposure: No date

STOT-repeated exposure: No date

Aspiration hazard: No date

12. Ecological information

Toxicity: No data

Persistence and degradability: No data

Bio accumulative potential: No data

Mobility in soil: No data

Results of PBT and vPvB assessment: No data

Other adverse effects: No data

13. Disposal consideration

Arrange disposal as special waste, by licensed disposal company, in consultation with local waste disposal authority, in accordance with national and regional regulations.

14. Transportation information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. Regulatory information

Safety, health and environmental and national regulations:

Product is not subject to any additional regulations or provisions

Safety Assessment

No Chemical Safety Assessment

16. Other information

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.