Safety Data Sheet

CATAPOWER

catapowerinc.com

Version 1.1
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Section 1: Identification

1.1 Product identifier

Product name:	Chloro(p-cymene)[2-[(di-tert-butylphosphino)methyl]pyridine] ruthenium(II) triflate
Other names:	N/A
Product code:	02-03-0021
CAS number:	2058252-91-6

1.2 Relevant uses

Recommended use:	Laboratory use only

1.3 Supplier details

Manufacturer:	Catapower, Inc. 2265 E. Foothill Blvd. Pasadena, CA 91107 info@catapowerinc.com
Phone:	(626) 657-0386

1.4 Emergency telephone number

Emergency phone:	(800) 424-9300 CHEMTREC is available at the number above 24 hours/day, 7 days/week.

Section 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Hazard classifications for this substance are unknown.

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H303 + H333	May be harmful if swallowed or inhaled.

Precautionary statement(s)

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/ eye protection/ face protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P330	Rinse mouth.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified
Additional hazards for this substance are unknown.

Section 3: Composition/information on ingredients

3.1 Substances

Synonyms	Chloro(p-cymene)[2-[(di-tert-butylphosphino)methyl]pyridine] ruthenium(II) triflate
Formula	$C_{25}H_{38}ClF_3NO_3PRuS$
Molecular weight	657.13 g / mol
CAS number	2058252-91-6

Section 4: First aid measures

4.1 Description of necessary first-aid instructions

General guidance:	Move away from the dangerous area. Consult a qualified medical professional and present this safety data sheet.
If inhaled:	Move the affected person to fresh air. Provide artificial respiration if not breathing. Consult a qualified medical professional.
In case of skin contact:	Wash the affected area with soap and water. Consult a qualified medical professional.
In case of eye contact:	Flush the affected eye with water for 15 minutes. Consult a qualified medical professional.
If swallowed:	Do not induce vomiting. Rinse the mouth with water. Consult a qualified medical professional.

4.2 Most important symptoms/effects
No data available.

4.3 Indication of immediate medical attention and special treatment needed
No data available.

Section 5: Firefighting measures

5.1 Suitable extinguishing media
Use dry chemical, dry sand, or carbon dioxide to extinguish.

5.2 Specific hazards arising from the chemical
Combustion may release carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides, hydrogen fluoride, and iridium oxides.

5.3 Recommendations for firefighters
Combustion may release highly toxic hydrogen fluoride (HF) gas. Wear self-contained breathing apparatus.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures
Use personal protective equipment as recommended in Section 8. Avoid breathing dust. Ensure adequate ventilation. In the event of an emergency, evacuate to a safe location.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Solid material may be swept. Temporarily store in a suitable container. Dispose of the material in accordance with local regulations as described in Section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling
Use personal protective equipment as recommended in Section 8. Avoid breathing aerosol. Avoid contact with skin, eyes, and clothing. Avoid ingestion. Take precautions to prevent the formation and accumulation of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly sealed in a dry location. Material is air sensitive; recommended storage is under inert atmosphere. Storage class 4.1B (flammable solid materials).

Section 8: Exposure controls / personal protection

8.1 Control parameters
Components with workplace control parameters
No data available.

8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)
Eye/face protection
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection
For full or incidental contact, nitrile gloves with a minimum layer thickness of 0.11 mm are recommended.

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.

Respiratory protection
When a risk assessment indicates respiratory protection is required, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Yellow-orange solid
Odor:	No data available
Odor threshold:	No data available
pH:	No data available
Melting/freezing point:	No data available
Initial boiling point and range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	No data available
Solubility:	No data available
Partition coefficient, n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive Properties:	No data available

Section 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under the recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Flames and sparks

10.5 Incompatible materials
No data available

10.6 Hazardous decomposition products.
Fire-induced decomposition may release carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides, hydrogen fluoride, and iridium oxides. Hydrogen fluoride is toxic. See Section 5 for additional firefighting information.

Section 11: Toxicological information

11.1 Information on toxicological effects

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
No data available

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Section 12: Ecological information

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulation potential
No data available

12.4 Mobility in soil
No data available

12.6 Other adverse effects
No data available

Section 13: Disposal considerations

13.1 Waste disposal methods
Must not be disposed in household garbage or in sewer. Dispose of excess product in appropriate containers with a licensed disposal company in accordance with all relevant regulations.

13.2 Contaminated packaging
Contaminated packaging should be discarded in the same manner as excess product.

Section 14: Transport information

DOT (US)
Non-hazardous for transportation

IATA
Non-hazardous for transportation

IMDG
Non-hazardous for transportation

Section 15: Regulatory information

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture
SARA 302 components
Not listed

SARA 313 components
Not listed

SARA 311/312 Hazards
Not listed

Massachusetts Right To Know components
Not listed

California Prop. 65 components
Not listed

Section 16: Other information

16.1 Disclaimer
This information supplied in this document is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Users should make their own investigation to determine the suitability of this information for their particular purposes.