1 Identification

· Product name
  · Trade name: (Trimethyl)methylcyclopentadienylplatinum(IV), 99%
  · Item number: 78-1350
  · CAS Number: 94442-22-5

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier: Strem Chemicals, Inc.
    7 Mulliken Way
    NEWBURYPORT, MA 01950
    USA
    info@strem.com
  · Information department: Technical Department
  · Emergency telephone number:
    EMERGENCY: CHEMTREC: +1 (800) 424-9300
    During normal opening times: +1 (978) 499-1600

2 Hazard(s) identification

· Classification of the substance or mixture
  · GHS06 Skull and crossbones
  Acute Tox. 1 H300 Fatal if swallowed.
  Acute Tox. 1 H310 Fatal in contact with skin.

  · GHS07
  Skin Sens. 1 H317 May cause an allergic skin reaction.

· Label elements
  · GHS label elements
    The substance is classified and labeled according to the Globally Harmonized System (GHS).
  · Hazard pictograms
    · GHS06

· Signal word Danger

· Hazard-determining components of labeling:
  (Trimethyl)methylcyclopentadienylplatinum(IV), 99%

· Hazard statements
  H300+H310 Fatal if swallowed or in contact with skin.
  H317 May cause an allergic skin reaction.

· Precautionary statements
  P101 If medical advice is needed, have product container or label at hand.
  P102 Keep out of reach of children.
  P103 Read label before use.
Trade name: (Trimethyl)methylcyclopentadienylplatinum(IV), 99%

P231 Handle under inert gas.
P235 Keep cool.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P422 Store contents under inert gas.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
  - NFPA ratings (scale 0 - 4)
    - Health = 4
    - Fire = 0
    - Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - Health = 4
  - Fire = 0
  - Reactivity = 0

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  94442-22-5 (Trimethyl)methylcyclopentadienylplatinum(IV), 99%

4 First-aid measures

- Description of first aid measures
  - General information:
    Immediately remove any clothing soiled by the product.
    In case of irregular breathing or respiratory arrest provide artificial respiration.
  - After inhalation:
    Supply fresh air and to be sure call for a doctor.
    In case of unconsciousness place patient stably in side position for transportation.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
  - After swallowing: Do not induce vomiting; immediately call for medical help.
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed
    No further relevant information available.
5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
  No further relevant information available.

- **Advice for firefighters**
  - **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  Not required.

- **Environmental precautions:**
  Do not allow product to reach sewage system or any water course.

- **Methods and material for containment and cleaning up:**
  Dispose contaminated material as waste according to item 13.

- **Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling**
  Thorough dedusting.

- **Handling:**
  Handle under inert gas.

- **Information about protection against explosions and fires:**
  No special measures required.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**
  Keep cool.
  Store contents under inert gas.

- **Requirements to be met by storerooms and receptacles:**
  No special requirements.

- **Information about storage in one common storage facility:**
  Not required.

- **Further information about storage conditions:**
  Keep receptacle tightly sealed.

- **Recommended storage temperature:**
  Store at temperatures not exceeding -18 °C.

- **Specific end use(s)**
  No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:**
  No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**
  Not required.

- **Additional information:**
  The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

- Breathing equipment: Not required.
- Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Safety glasses

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

  - **General Information**
    
    - **Appearance:**
      
      - Form: Powder
      - Color: Whitish
    
    - **Odor:** Characteristic
    
    - **Odour threshold:** Not determined.
    
    - **pH-value:** Not applicable.
    
    - **Change in condition**
      
      - Melting point/Melting range: 30-31 °C (86-88 °F)
      - Boiling point/Boiling range: Undetermined.
    
    - **Flash point:** Not applicable.
    
    - **Flammability (solid, gaseous):** Product is not flammable.
    
    - **Ignition temperature:**
      
      - Decomposition temperature: Not determined.
      
      - Auto igniting: Not determined.
    
    - **Danger of explosion:** Product does not present an explosion hazard.
    
    - **Explosion limits:**
      
      - Lower: Not determined.
      - Upper: Not determined.
    
    - **Vapor pressure:** no data hPa
    
    - **Density at 20 °C (68 °F):** 1.88 g/cm³ (15.689 lbs/gal)
    
    - **Relative density**
      
      - Not determined.
    
    - **Vapour density**
      
      - Not applicable.
### Trade name: (Trimethyl)methylcyclopentadienylplatinum(IV), 99%

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Evaporation rate</td>
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<tr>
<td>Solubility in / Miscibility with Water</td>
<td>Insoluble.</td>
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<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not determined.</td>
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<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
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</tr>
<tr>
<td>Kinematic</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Organic solvents</td>
<td>0.0 %</td>
</tr>
<tr>
<td>Solids content</td>
<td>100.0 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
  - **Possibility of hazardous reactions:** No dangerous reactions known.
  - **Conditions to avoid:** No further relevant information available.
  - **Incompatible materials:** No further relevant information available.
  - **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:**
    - **Primary irritant effect:**
      - **on the skin:** No irritant effect.
      - **on the eye:** No irritating effect.
  - **Sensitization:** Sensitization possible through skin contact.
  - **Additional toxicological information:** Danger through skin absorption.
- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**: Substance is not listed.
  - **NTP (National Toxicology Program)**: Substance is not listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**: Substance is not listed.

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability:** No further relevant information available.
  - **Bioaccumulative potential:** No further relevant information available.
  - **Mobility in soil:** No further relevant information available.
13 Disposal considerations

- Waste treatment methods
  - Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, IMDG, IATA: UN3467

- UN proper shipping name
  - DOT: Organometallic compound, solid, toxic, n.o.s.
  - IMDG, IATA: ORGANOMETALLIC COMPOUND, SOLID, TOXIC, N.O.S.

- Transport hazard class(es)
  - DOT
    - Class: 6.1 Toxic substances
    - Label: 6.1
  - IMDG
    - Class: 6
    - Label: 6.1
  - IATA
    - Class: 6.1 Toxic substances

(Contd. of page 5)
## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):**
      Substance is not listed.
    - **Section 313 (Specific toxic chemical listings):**
      Substance is not listed.
    - **TSCA (Toxic Substances Control Act):**
      Substance is listed.
  - **Proposition 65**
    - **Chemicals known to cause cancer:**
      Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for females:**
      Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for males:**
      Substance is not listed.
    - **Chemicals known to cause developmental toxicity:**
      Substance is not listed.

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    Substance is not listed.
Trade name: (Trimethyl)methylcyclopentadienylplatinum(IV), 99%

· TLV (Threshold Limit Value established by ACGIH)
  Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)
  Substance is not listed.

· GHS label elements
  The substance is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms

  GHS06

· Signal word Danger

· Hazard-determining components of labeling:
  (Trimethyl)methylcyclopentadienylplatinum(IV), 99%

· Hazard statements
  H300+H310 Fatal if swallowed or in contact with skin.
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  P102 Keep out of reach of children.
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  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P422 Store contents under inert gas.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information 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.

· Department issuing SDS: Technical Department.
· Contact: Technical Director
· Date of preparation / last revision 09/17/2015 / -

· Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  Acute Tox. 1: Acute toxicity, Hazard Category 1
  Skin Sens. 1: Sensitisation - Skin, Hazard Category 1