# MSDS

## Section I - Name and Product

**NAME:** Ferrocene NHS ester  
**CHEMICAL NAME:** Ferrocene carboxylic N-hydroxysuccinimide ester  
**24 HOUR EMERGENCY RESPONSE NUMBER:** 908-720-4030  
**PRODUCT USE:** Various Molecular Techniques  
**PRODUCT NO.:** HPT1002

## Section II – Components

<table>
<thead>
<tr>
<th>Formula</th>
<th>C_{15}H_{13}FeNO_{4}</th>
<th>MW: 327.11</th>
</tr>
</thead>
</table>

## Section III - Physical Data

- **Appearance:** Yellow  
- **Odor:** None  
- **Solubility in Water:** No data available

## Section IV - Fire and Explosion Hazard Data

- **Flash Point:** Non combustable  
- **Autoignition:** N/A  
- **Flammable Limits:**  
  - Upper: -n/a  
  - Lower: -n/a

**Extinguishing Media:** Water, foam, carbon dioxide or dry chemical, as suitable for surrounding fire and materials.  

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus and full protective clothing.  

**Unusual Fire and Explosion Hazard:** None known

## Section V - Health Hazard Data

**Toxicity Data:** Threshold limit value – Not established.

**Effects of Overexposure:**

- **Eyes:** May cause irritation or burning  
- **Skin:** May cause skin irritation.  
- **Inhalation:** May cause irritation to the respiratory tract.  
- **Ingestion:** Not a hazard with normal industrial usage.

**Emergency and First Aid Procedures:**

- **Skin Contact:** Flush with water, then wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Call a physician if irritation persists.  
- **Eye contact:** Flush with water for 15 minutes and call a physician if irritation persists.  
- **Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Keep victim quiet and warm. Call a poison control center or physician immediately.  
- **Ingestion:** Call a poison control center or a physician. If victim is conscious, give large amounts of water or milk to dilute. Never induce vomiting or give liquids to someone who is unconscious.

## Section VI - Reactivity Data

**Stability:** Stable Material, hazardous polymerization will not occur.  
**Decomposition Products:** Toxic oxides of carbon may evolve when heated to decomposition.
Section VII - Spill or Leak Procedures

If a spill occurs: Prior to cleaning up a spill, personnel should wear OSHA approved respirator, chemical resistant gloves and protective clothing. Wipe with a damp towel and place material in a suitable container for disposal. Avoid post-cleanup contact of material or protective gear with the skin or eyes.

Use adequate ventilation during all facets of the cleanup.

Waste disposal method: Dispose of residue in accordance with federal, state, and local regulations.

Section VIII - Storage and Handling

Storage: dry, room temperature storage.

Handling Precautions: Do not get material on skin, in eyes or on clothing. Wear protective clothing, chemical resistant gloves, safety goggles, and wash thoroughly after handling. No food, beverages, cosmetics, or tobacco products should be carried, stored or consumed where this chemical is used.

Section IX - Special Protective Information

Respiratory Protection: Use respiratory protection approved by NIOSH and appropriate to the hazard.

Ventilation: Local exhaust recommended.

Protective Gloves: Chemical Resistant.

Eye Protection: Safety goggles with side shields.

Other Protective Equipment: Lab coat or other long sleeved garment to limit skin exposure. Safety shower and eye bath.

Section X - Transportation Data

Domestic (DOT):

Proper Shipping Name: Ferrocene NHS ester

International (I.M.O.):

Air (I.C.A.O.):

The information in this Material Safety Data Sheet (MSDS) is intended only as a guide to the appropriate precautionary handling of this material by a person trained in, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and danger of this chemical material in his application. This material may react with other substances and since potential users are so varied, Fivephoton Biochemicals, cannot warn of all potential dangers. Therefore, Fivephoton Biochemicals, will not assume responsibility and expressly disclaims liability for loss, damage, or expense arising from the use, handling, storage, or disposal of this product.

Fivephoton Biochemicals urges each user to carefully read the MSDS prior to using the product and become aware to the adverse health effects associated with this product. While the information provided in the MSDS is believed to be correct, the information is provided without any warranty expressed or implied, regarding its corrective uses.