1. **IDENTIFICATION**

   - **Product Identifier**: 8-Hydroxyquinoline
   - **Product Number**: H006
   - **Distributor Name**: TOKU-E Company
   - **Distributor Address**: 715 W Orchard Dr. Suite 3
     Bellingham, WA 98225
   - **Phone Number**: (360)734-1789
   - **Emergency Phone Number (International)**: +1 (352) 353-3500
   - **Emergency Phone Number (US Only)**: 1 (800) 535-5053
   - **Safety Data Sheet Issued by**: TOKU-E USA
   - **CAS-Number**: [148-24-3]
   - **EC/ REACH Number**: [205-711-1]
   - **Recommended Use**: 8-Hydroxyquinoline is a chelating compound with antiseptic properties
   - **Restrictions of Use**: Not for human or animal use

2. **HAZARD(S) IDENTIFICATION**

   - **GHS Classification**: Acute toxicity, oral (Category 4)

   - **Signal Word**: Warning

   - **Hazard Statements**: H302 Harmful if swallowed

   - **Precautionary Statements**:
     - **P264**: Wash hands/skin thoroughly after handling.
     - **P270**: Do not eat, drink, or smoke when using this product.
     - **P301+P312**: IF SWALLOWED: Call a POISON CENTER or doctor/physician IF you feel unwell
     - **P330**: Rinse mouth
     - **P501**: Dispose of contents/container in accordance with governmental regulation

   - **Hazards not otherwise classified (HNOC)**: No Data Available by GHS

3. **COMPOSITION/INFORMATION ON INGREDIENTS**

   - **Synonym(s)**:
     - 8-Quinolinol, Bioquin, 8-Chinolinol, Fennosan, Fennosan HF-15, Hydroxybenzopyridine, 8-Hydroxychinolin, 8-Hydroxyquinoline, NCI-C55298, 8-OQ, Oxin, Oxine, Oxybenzopyridine, Oxychinolin, Oxyquinoline, 8-Oxyquinoline, Phenopyridine, 8-Quinol, Quinophenol, Tumex, USAF EK-794
Formula \( C_9H_7NO \)
Molecular Weight 145.16
CAS-Number [148-24-3]
EC/ REACH Number [205-711-1]
Hazardous Components 8-Hydroxyquinoline
Acute toxicity, oral (Category 4)

4. FIRST-AID MEASURES

General Advice Consult a doctor/physician if exposed - additional medical care may be required. Show this Safety Data Sheet to the medical provider.

If Inhaled If inhaled, move to fresh air. If not breathing, give artificial respiration and immediately call local emergency telephone number.

In Case of Skin Contact Wash skin thoroughly with soap and water.

In Case of Eye Contact Flush eye with water. After initial flush, remove any contact lenses and continue flushing for at least 15 minutes.

If Swallowed Rinse mouth with water. Immediately call a doctor, physician, or poison control center. Never give anything by mouth to an unconscious person.

Specific Treatment Please see Section 2 precautionary statements and/or Section 11.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Water spray, alcohol-resistant foam, dry chemical, carbon dioxide

Special Protective Equipment for Firefighters Wear self-contained breathing apparatus

Hazardous Combustion Products Formed under fire conditions: carbon and nitrogen oxides, carbon monoxide, hydrogen peroxide

6. ACCIDENTAL RELEASE MEASURES

General Evacuate personnel to a safe location. Use appropriate personal protective equipment while in contact with product. Avoid dust formation. Ensure adequate ventilation.

Personal Precautions Prevent contamination of skin, eyes and clothing with appropriate protective equipment (Section 8). Wear respiratory protection.

Environmental Precautions Recover waste, if possible, and place in suitable closed container for licensed disposal. Prevent spillage - do not let product enter drains.

7. HANDLING AND STORAGE

Precautions for Safe Handling Wear appropriate protective clothing/gear to prevent contact with skin and eyes. Provide exhaust ventilation or respiratory protection in areas where
8. **EXPOSURE CONTROLS/ PERSONAL PROTECTION**

Contains no substance/substances with occupational exposure limit values.

- **OSHA Permissible Exposure Limits:** No Data Available
- **NIOSH Recommended Exposure Limits:** No Data Available
- **ACGIH Threshold Limit Values:** No Data Available
- **PPE: Respiratory protection**
  
  Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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).

- **PPE: Hand Protection**
  
  Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands.

- **PPE: Eye Protection**

  Use a face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

- **PPE: Skin and Body Protection**

  Handle with gloves. Wear protective clothing. Choose body protection according to the amount and concentration of the dangerous substance at the workplace. When deemed needed according to the concentration and amount of this product, use a complete body suit.

9. **PHYSICAL/CHEMICAL PROPERTIES**

- **Appearance:** White or light yellow crystalline powder
- **Lower Flammability/Explosion Limit:** No Data Available
- **Upper Flammability/Explosion Limit:** No Data Available
- **Odor:** No Data Available
- **Vapor Pressure:** No Data Available
- **Odor Threshold:** No Data Available
- **Vapor Density:** No Data Available
- **pH:** No Data Available
- **Relative Density:** No Data Available
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point</td>
<td>72-75°C</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Solubility in Other Solvents</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Boiling Point and Range</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Partition Coefficient: n-octanol/water</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Ignition Temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Auto-Ignition Temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Density</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Optical Rotation</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Absorbance (290nm, 5% in H₂O)</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Water Content (Karl Fisher)</td>
<td>≤0.5%</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Stability</td>
<td>Stable under recommended storage conditions</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Materials to Avoid</td>
<td>Strong oxidizing agents</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Formed under fire conditions: carbon and nitrogen oxides, carbon monoxide, hydrogen peroxide</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rat: 1200 mg/kg</td>
</tr>
<tr>
<td>Inhalation LC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Rat: &gt;1210 mg/m3/6H</td>
</tr>
<tr>
<td>Dermal LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Intraperitoneal LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Mouse: 43 mg/kg</td>
</tr>
<tr>
<td>Intravenous LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Subcutaneous LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>Mouse: 83600 ug/kg</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Skin, Rabbit: Mild skin irritation</td>
</tr>
<tr>
<td>Serious Eye Damage/ Eye Irritation</td>
<td>Eyes, Rabbit: Mild eye irritation</td>
</tr>
<tr>
<td>Respiratory or Skin Sensitization</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>Salmonella typhimurium, 10 ug/plate</td>
</tr>
<tr>
<td></td>
<td>Mutation in microorganisms</td>
</tr>
<tr>
<td></td>
<td>Escherichia coli, 10 umol/L</td>
</tr>
<tr>
<td></td>
<td>DNA adduct</td>
</tr>
<tr>
<td></td>
<td>Bacillus subtilis, 10 mmol/L</td>
</tr>
<tr>
<td></td>
<td>Mutation in microorganisms</td>
</tr>
<tr>
<td></td>
<td>Human HeLa cell, 25 umol/L</td>
</tr>
<tr>
<td></td>
<td>DNA inhibition</td>
</tr>
<tr>
<td></td>
<td>Mouse lymphocyte, 400 ug/L</td>
</tr>
<tr>
<td></td>
<td>Mutation in mammalian somatic cells</td>
</tr>
<tr>
<td></td>
<td>Hamster ovary, 40 umol/L</td>
</tr>
</tbody>
</table>
Mutation in test systems - not otherwise specified
Hamster ovary, 2600 ug/L
Sister chromatid exchange

Carcinogenicity
Classified by International Agency for Research on Cancer Monograph as Group (3), (Not classifiable as to its carcinogenicity to humans) agent.
This substance has not been identified as a potential carcinogen within the National Toxicology Program Report on Carcinogens.

Reproductive Toxicity
No Data Available
Specific Target Organ Toxicity: Single Exposure (Globally Harmonized System)
No Data Available
Specific Target Organ Toxicity: Repeated Exposure (Globally Harmonized System)
No Data Available
Aspiration Hazard
No Data Available
Potential Heath Effects
See Section 2, Hazard(s) Identification
Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated
Synergistic Effects
No Data Available
Additional Information
No Data Available

12. ECOLOGICAL INFORMATION
Toxicity
No Data Available
Persistence and Degradability
No Data Available
Bio accumulative Potential
No Data Available
Mobility in Soil
No Data Available
PBT and vPvB Assessment
No Data Available

In the absence of complete ecological information, treat product as environmentally hazardous. Use proper storage, handling, and disposal to prevent unintentional release into the environment.

13. DISPOSAL CONCENTRATIONS
Product
Dispose of product through a licensed disposal company.
Contaminated Packaging
Dispose of as unused product.

14. TRANSPORTATION INFORMATION
DOT (US)
Not a Dangerous Good
IMDG
Not a Dangerous Good
IATA
Not a Dangerous Good

15. REGULATORY INFORMATION
SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.
SARA 311/312 Hazards
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 311/312

Massachusetts Right to Know
No components are subject to the Massachusetts Right to Know Act

Pennsylvania Right to Know
No components are subject to the Pennsylvania Right to Know Act

New Jersey Right to Know
No components are subject to the New Jersey Right to Know Act

California Prop. 65 Components
No
This product does not contain any chemicals known to the State of California to cause birth defects, cancer, or any other reproductive harm

EU Information
SDS in accordance with REACH 1907/2006
EC/ REACH Number [205-711-1]
CAS-Number [148-24-3]
Name: 8-Hydroxyquinoline
Envisaged Registration Deadline: 30/11/2010
See GHS Information under Section 2, Hazard Identification

16. OTHER INFORMATION
Revision Date: 2016-08-18

HMIS Rating
Health Hazard 1
Chronic Health Hazard Y
Flammability 0
Physical Hazard 0

NFPA Rating
Health Hazard 1
Fire Hazard 0
Reactivity Hazard 0

This safety data sheet represents TOKU-E Company’s current understanding of the hazards associated with this product. The stated hazard information is based on existing experimental data and is not guaranteed to be all-inclusive. TOKU-E Company strives to maintain current and comprehensive safety information but recognizes that this safety data sheet may require revision as new information becomes available. TOKU-E Company shall not be held liable for damage or injury resulting from contact, handling, or storage of this product.