1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION:
Product Name: Biphenyl
Date of Prep: 15 November 2011
MSDS #: 901139.001
Revision: C

2. COMPOSITION/INFORMATION ON INGREDIENTS:

<table>
<thead>
<tr>
<th>CHEMICAL INGREDIENT NAME</th>
<th>EXPOSURE LIMITS</th>
<th>EU LABEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAS NUMBER</td>
<td>EC NUMBER</td>
</tr>
<tr>
<td>92-52-4</td>
<td>2021635</td>
<td>99+</td>
</tr>
</tbody>
</table>

Notes: Oral LD₅₀ = 1900mg/kg (mouse); Intravenous LD₅₀ = 56mg/kg (mouse)

3. HAZARDS IDENTIFICATION: Irritant. Very toxic to aquatic organisms.

4. FIRST AID MEASURES:
Inhalation: Remove to fresh air.
Skin Contact: Wash with soap and water.
Eye Contact: Immediately flush with water for a minimum of 15 minutes.
Ingestion: Get medical attention.

After following first aid measures, seek medical attention.

5. FIRE-FIGHTING MEASURES:
Flammable Properties: Flash Point=230°F (110°C); Explosion Limits = >0.6% and <5.8%
Extinguishing Media: Carbon dioxide, dry chemical
Unique Aspects Contributing To a Fire:
Special Fire Fighting Procedures:
Note: As in any fire, wear self-contained breathing apparatus, and full protective gear.

6. ACCIDENTAL RELEASE MEASURES: Sweep up, place in bag and hold for waste disposal

7. HANDLING AND STORAGE: Keep tightly closed

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:
Handle in accordance with good laboratory practices.

Respiratory Protection: Not normally needed. If exposure limits are exceeded, use approved respirator.
Eye Protection: Safety glasses with side shields.
Skin Protection: Neoprene or other chemical resistant gloves. Disposable nitrile are acceptable for light intermittent exposure.
Engineering Controls: No special requirements. Handle in an area with good general room ventilation.
### 9. PHYSICAL AND CHEMICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White</td>
</tr>
<tr>
<td>Physical State</td>
<td>Powder</td>
</tr>
<tr>
<td>Flash Point</td>
<td>230°F (110°C)</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>9.46mm Hg @ 115°C</td>
</tr>
<tr>
<td>Odor</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>Lower-0.6%, Upper-5.8%</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>255°C</td>
</tr>
<tr>
<td>Vapor Density (air=1)</td>
<td>5.31</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.992g/mL</td>
</tr>
<tr>
<td>Melting Point</td>
<td>68°C</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY:

- **Hazardous Polymerization:** ☑ Will Not Occur  ☐ May Occur
- **Stability:** Stable

### 11. TOXICOLOGICAL INFORMATION:

**Primary Route(s) of Exposure Under Normal Use:**
- Target Organ(s): Liver, nerves

**Acute Effects:** Oral LD₅₀=2140mg/kg (rat), Oral LD₅₀=1900mg/kg (mouse), Intravenous LD₅₀=56mg/kg (mouse), Oral LD₅₀=>2600mg/kg (cat), Oral LD₅₀=2400mg/kg (rabbit), Skin LD₅₀=>5010mg/kg (rabbit)

**Chronic Effects:** CARCINOGEN: Oral=56g/kg (mouse), Subcut=46mg/kg (mouse)
- MUTAGEN: Oral=8400mg/kg (rat), Oral=2g/kg (mouse), Inhalation=10mg/L (hamster)

**Other Information:** Chemical Ingredient(s) not classified as carcinogen(s) by OSHA, IARC, NTP, ACGIH, or California.

### 12. ECOLOGICAL INFORMATION:

- Very toxic to aquatic organisms

### 13. DISPOSAL CONSIDERATIONS:

Dissolve or mix with combustible solvent and burn in a chemical incinerator

### 14. TRANSPORT INFORMATION:

- **U.S. DOT:** Shipping Name: None
- **Hazard Class:** Non-hazardous for transport
- **UN/NA #:** 3077
- **Packing Group #:** III
- **IATA/ICAO:** Environmentally hazardous

### 15. REGULATORY INFORMATION:

**U.S. TOSCA:** Yes

**Canada:** This product has been classified according to the hazard criteria of the CPR and this MSDS contains all the information required by the CPR.

### 16. OTHER INFORMATION:

**U.S. EPA SARA**
- **313 Chemicals:** Yes
- **CERCLA RQ:**
  - 4= Severe Hazard
  - 3=Serious Hazard
  - 2=Moderate Hazard
  - 1=Slight Hazard
  - 0=Minimal Hazard

**National Fire Protection Association Rating**
- **HEALTH:** 2
- **FLAMMABILITY:** 0
- **REACTIVITY:** 0
- **OTHER:**

**Notes:** Not Established (NE) means a value has not been set or there is no information available. Not Applicable (NA) means that the topic is not pertinent.

The information contained herein has been compiled from data presented in various technical sources believed to be accurate. Waters makes no warranties and assumes no liability in connection with the use of this information. It is the user’s responsibility to determine the suitability of this information and to assure the adoption of necessary precautions.