**Xenobiotic:** Aniline, Phenylamine, Aminobenzene

**Expected states of matter:** Yellow/brown oily liquid with fishy odor, dense vapor

**Purpose:** Exposure to aniline, either absorbed or inhaled, results in methemoglobinemia, a potentially fatal condition that limits the hemoglobin's ability to effectively transport oxygen. Treatment is directed at reversing methemoglobinemia and supporting oxygenation.

**Signs & Symptoms:** Severe cyanosis, Respiratory paralysis, Cardiac arrhythmia and cardiovascular collapse. Disorientation, Headache, Irritability, Delirium, Seizures. Bloody urination. Irritation to the eyes and mucosal membranes

**General Response:**
- Establish zones of control to protect responders & the public
- Protect responders with appropriate PPE
  - Entry: Level A
  - Decon: Level C
  - Transport: Regular PPE including eye protection
- Decon victims with high volumes of water
  - Specialized decon: Large volume soap & water
- Does victim present risk of secondary contamination?
  - NO

**Specific Treatments:**
- Treat symptomatically initially
- Monitor SpMet appropriately. If >30%, treat methemoglobinemia

<table>
<thead>
<tr>
<th><strong>Methylothioninium chloride</strong></th>
<th>1-2 mg/kg (0.1-0.2mL/kg of a 1% solution) over 10 minutes IV/IO. Clinical response usually seen in 30-60 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverses methemoglobinemia</td>
<td>(mg/kg dose) in 100mL NS at approx 3gtts/sec</td>
</tr>
<tr>
<td>Monitor SpMet. If &gt;30% than treat</td>
<td>Contraindication: G6PD deficiency</td>
</tr>
</tbody>
</table>

**Rationale for Treatment:** Early reversal of methemoglobinemia allows for normal oxygen transport and avoids Heinz-body hemolytic crisis and potential organ damage.

**Source:** CAMEO, Wiser, ATSD