

# Chemical Release Investigation Kit & Template (CRIKT)



## For Local Health Departments

CHEMICAL	TRADE NAME(S)
Hydrogen Chloride	Hydrochloric Acid, Muriatic Acid
<b>PREPARING FOR THE INVESTIGATION</b>	
<p style="text-align: center;"><b>Know the Agent</b></p>	<ul style="list-style-type: none"> <li>• Hydrogen chloride is a colorless to slightly yellow, corrosive, non-flammable gas that has a strong irritating odor. <ul style="list-style-type: none"> <li>○ Read about hydrogen chloride in the Hydrogen Chloride Fact Sheet.</li> </ul> </li> <li>• For additional information, visit:</li> <li>• <a href="http://www.atsdr.cdc.gov/substance/toxsubstance.asp?toxid=147">http://www.atsdr.cdc.gov/substance/toxsubstance.asp?toxid=147</a></li> <li>• Contact: <ul style="list-style-type: none"> <li>○ Public Health Preparedness &amp; Response Branch (PHP&amp;R): 1.888.820.0520.</li> <li>○ N.C. Emergency Management Desk: 1.800.858.0368. If appropriate, contact local Emergency Management.</li> </ul> </li> <li>• Print and review form: <ul style="list-style-type: none"> <li>○ Chemically Exposed Persons Line Listing.</li> </ul> </li> </ul>
<b>CONDUCTING THE INVESTIGATION</b>	
<p style="text-align: center;"><b>Evaluate Release/Exposure</b></p>	<ul style="list-style-type: none"> <li>• Define scale/scope of exposure (work with N.C. Emergency Management, HazMat, an Environmental Health Specialist at the local or state level, N.C.)</li> </ul>

	<p>Department of Environment and Natural Resources [DENR], and U.S. Environmental Protection Agency [EPA] if applicable).</p>
<p><b>Identify Route of Human Chemical Exposure</b></p>	<ul style="list-style-type: none"> <li>• Identify route of exposure: <ul style="list-style-type: none"> <li>○ Inhalation</li> <li>○ Ingestion (as hydrochloric acid)</li> <li>○ Dermal (skin) &amp; eye contact</li> </ul> </li> <li>• Interview responders and/or exposed individuals to obtain additional information about the hydrogen chloride exposure within 24 hours.</li> </ul>
<p><b>Describe Exposed Population</b></p>	<ul style="list-style-type: none"> <li>• Determine the following: <ul style="list-style-type: none"> <li>○ Geographic area affected.</li> <li>○ Population affected (general population, employees and residents).</li> <li>○ How population exposed (in vicinity, inhalation or direct contact).</li> <li>○ Define cases within the exposed population.</li> <li>○ Contact OEEB (919.707.5900) to assist in developing a risk assessment to be shared with officials.</li> <li>○ Once completed, provide OEEB with the Chemically Exposed People Line Listing.</li> </ul> </li> </ul>
<p><b>Implement Control Measures to Prevent Additional Exposures</b></p>	<ul style="list-style-type: none"> <li>• Decide on measures to protect citizens and the surrounding communities.</li> <li>• The environmental health specialist should consult with OEEB to discuss next steps to ensure no additional individuals are exposed.</li> <li>• Inform residents/businesses of the hydrogen chloride exposure through</li> </ul>

	<p>local emergency notification system, local TV and radio.  Important points to include:</p> <ul style="list-style-type: none"> <li>○ Location of release/exposure</li> <li>○ Geographic area affected</li> <li>○ Shelter-in-place instructions</li> <li>○ Where to evacuate if needed</li> <li>○ Where to find shelter</li> <li>○ Where to seek medical care</li> </ul> <ul style="list-style-type: none"> <li>● For more information, please listen to your local radio station or watch your local news channel.</li> <li>● Work with your local incident management team and local health director to determine steps to be taken to re-enter residences/businesses. <ul style="list-style-type: none"> <li>○ The local incident management team will determine when residences/businesses are acceptable for re-entry and alert the local health director, who will then participate in the final decision.</li> <li>○ Your local health director will then communicate with the on-scene coordinator.</li> <li>○ The on-scene coordinator will then communicate to the community when they are permitted to return home or to their place of employment.</li> </ul> </li> </ul>
<b>INVESTIGATION RESULTS</b>	
<b>Case Finding</b>	<ul style="list-style-type: none"> <li>● During the course of the investigation, interview other exposed individuals for symptoms related to the hydrogen chloride exposure. <ul style="list-style-type: none"> <li>○ Work with your local</li> </ul> </li> </ul>

	<p>medical facilities, local incident management team and/or the first responders to compile the exposed people's information.</p> <ul style="list-style-type: none"> <li>○ Contact local hospitals to determine total number injured, hospitalized, ED visits, and deceased.</li> <li>○ Contact N.C. DETECT, North Carolina's state syndromic surveillance system for additional information: 919.843.2361.</li> </ul> <ul style="list-style-type: none"> <li>● Advise symptomatic individuals, especially children, to see their healthcare provider immediately for evaluation.</li> </ul>
<p><b>Routine Precautions</b></p>	<ul style="list-style-type: none"> <li>● Communicate the following control measures with residents/business owners. <ul style="list-style-type: none"> <li>○ Ventilate the area of the spill or leak.</li> <li>○ Restrict access to the immediate area around the spill or leak unless wearing protective equipment.</li> <li>○ Flush any dermal or eye exposures with large quantities of water.</li> <li>○ Stop the flow of gas if possible or wait for experts to arrive.</li> <li>○ If hydrochloric acid is spilled, sodium bicarbonate can be used to neutralize the acid.</li> </ul> </li> </ul>
<p><b>SPECIAL CONSIDERATIONS</b></p>	
<p><b>Risk Communication</b></p>	<ul style="list-style-type: none"> <li>● N.C. DHHS Communications Office 919. 855.4840 is available to assist local health departments as needed.</li> </ul>

<b>ADDITIONAL INFORMATION</b>	
<b>Glossary of Terms</b>	<p><b>DENR:</b> Department of Environment and Natural Resources</p> <p><b>ED:</b> Emergency Department</p> <p><b>EHS:</b> Environmental Health Specialist</p> <p><b>EPA:</b> Environmental Protection Agency</p> <p><b>OEEB:</b> Occupational and Environmental Epidemiology Branch</p> <p><b>PHP&amp;R:</b> Public Health Preparedness &amp; Response</p>

