

# HYDROGEN CHLORIDE -- Chemical Fact Sheet

<b><i>What is it?</i></b> <sup>1</sup>	Hydrogen Chloride is a colorless to white, corrosive gas. It has a sharp, irritating odor. It readily dissolves in water to make a clear, acidic solution, Hydrochloric Acid. Hydrochloric Acid is a member of the “mineral acid” family, a group of strong acids. Use of Hydrochloric Acid, where possible, is a safer alternative than Hydrogen Chloride gas.
<b><i>Where does it come from?</i></b>	Hydrogen Chloride can be prepared from mixing Sulfuric Acid and Sodium Chloride (table salt) or by mixing Hydrogen and Chloride gases.
<b><i>What are the common uses for it?</i></b>	Manufacture of chemicals Cleaning iron prior to galvanization Separating cotton from wool Delinting cotton Semiconductor manufacturing
<b><i>How is it transported in CCC?</i></b>	Hydrogen Chloride is shipped by truck and railcar.
<b><i>How is it stored in CCC?</i></b>	Hydrogen Chloride is stored in gas cylinders.

## Health Hazards from Exposure

<b><i>Exposure Route</i></b>	<b><i>Symptoms</i></b>	<b><i>First Aid</i></b>
Inhalation (low concentrations)	Irritates nose, throat and lungs Burning Sensation Discomfort or difficulty in breathing, coughing	Remove to fresh air. Seek medical attention if symptoms persist.
Inhalation (high concentrations & prolonged exposure)	Burning sensation Coughing, choking Sore throat, Swelling of throat Shortness of breath Labored breathing, chest pain Accumulation of fluid in lungs, death	Remove to fresh air, get medical attention including oxygen administration. Initiate CPR if breathing has stopped.
Eyes	Severe eye irritant Burning/discomfort Watering of eyes Redness, swelling, eye burns	Rinse eyes with water for at least 5 minutes. Seek medical attention.

Skin	Skin irritant Burning/discomfort Redness Skin burns	Wash skin with soapy water. Seek medical attention for all but minor exposure.
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Contra Costa RMP/CalARP Companies  
that Use, Store or Manufacture this Chemical<sup>2</sup>

The Dow Chemical Company

### For More Information

US Environmental Protection Agency and Technology Transfer Network	<a href="http://www.epa.gov/swerceppo">www.epa.gov/swerceppo</a> <a href="http://www.epa.gov/ttn/uatw/hapindex.html">www.epa.gov/ttn/uatw/hapindex.html</a>	(800)535-0202 EPCRA Hotline (919)541-0888
National Institute of Occupational Safety & Health and the Agency for Toxic Substances and Disease Registry	<a href="http://www.cdc.gov/niosh">www.cdc.gov/niosh</a> <a href="http://atsdr1.atsdr.cdc.gov:8080/hazdat.html">http://atsdr1.atsdr.cdc.gov:8080/hazdat.html</a>	(800)477-1544
Occupational Safety and Health Administration	<a href="http://www.osha.gov">www.osha.gov</a> <a href="http://www.osha-slc.gov/ChemSamp_data">www.osha-slc.gov/ChemSamp_data</a>	(202)219-8151 or (202)219-7056
ChemFinder®	<a href="http://Chemfinder.camsoft.com">http://Chemfinder.camsoft.com</a>	(800)315-7300
International Safety Cards	<a href="http://siri.org/msds/mf/cards/list.html">http://siri.org/msds/mf/cards/list.html</a>	
MSDS Sites	<a href="http://www.chem.utah.edu/msds">www.chem.utah.edu/msds</a> <a href="http://www.msdonline.com">www.msdonline.com</a>	
Poison Control Center	<a href="http://www.calpoison.org">www.calpoison.org</a>	(800) 876 - 4766
California Health Service Department Sacramento	<a href="http://www.dhs.ca.gov">www.dhs.ca.gov</a>	(916) 540 - 3014
Contra Costa County Health Services – Hazardous Materials Department	<a href="http://www.cchealth.org/gourps/hazmat">www.cchealth.org/gourps/hazmat</a>	(925) 646 – 2286

*This is a brief summary of information on this chemical. For more detailed information you can obtain a Material Safety Data Sheet from Contra Costa Health Services. You can also call any of the companies listed above for more information.*

<sup>1</sup>This information was obtained from the websites listed above.

<sup>2</sup>The companies listed were obtained from Business Plans submitted to Contra Costa County Health Services Department.