

HYDROGEN -- Chemical Fact Sheet

<i>What is it?¹</i>	Hydrogen is an odorless, extremely flammable gas. When combined with Oxygen gas, it makes water. Hydrogen is lighter than air and was used for things like airships in the past. However, due to Hydrogen's extreme flammability, Helium has replaced it in airships.
<i>Where does it come from?</i>	Hydrogen is naturally occurring. It can also be manufactured by running an electrical current through water or by mixing natural gas with steam.
<i>What are the common uses for it?</i>	Manufacture of chemicals Petroleum refining both as a fuel and a reagent
<i>How is it transported in CCC?</i>	Hydrogen is transported by truck and pipeline.
<i>How is it stored in CCC?</i>	Hydrogen is stored in cylinders.

Health Hazards from Exposure

<i>Exposure Route</i>	<i>Symptoms</i>	<i>First Aid</i>
Inhalation (very high concentrations)	Dizziness Shortness of breath Unconsciousness	Remove to fresh air, get medical attention including oxygen administration. Initiate CPR if breathing stopped.
Skin	Frostbite on contact with Liquified Hydrogen.	Wash skin with water. Seek medical attention.

**Contra Costa RMP/CalARP Companies that
Use, Store or Manufacture this Chemical²**

Air Liquide Large Industries Rodeo
Air Products Marathon
Air Products Shell
Chevron Richmond Refinery
Marathon Martinez Refinery
Phillips 66 San Francisco Refinery
Shell Martinez Refinery
USS Posco Industries

For More Information

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

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

¹This information was obtained from the websites listed above.

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