



County of San Diego

DEPARTMENT OF ENVIRONMENTAL HEALTH AND QUALITY
HAZARDOUS MATERIALS DIVISION

P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(858) 505-6880 FAX (858) 505-6848

DISCLOSURE OF HAZARDOUS MATERIALS INFORMATION BULLETIN

REQUIREMENTS UNDER SECTION 68.1113 OF THE COUNTY CODE

- ◆ Businesses which handle hazardous materials in amounts greater than or equal to 55 gallons, 500 pounds or 200 cubic feet at standard temperature and pressure remain subject to the chemical inventory disclosure and Business Plan requirements of the California Health and Safety Code, Chapter 6.95.
- ◆ Businesses which handle highly toxic compressed gases (compressed gases with a Threshold Limit Value of 10 parts per million or less as referenced by the ACGIH) shall disclose these gases as part of their chemical inventory in any quantity and prepare a Business Plan (see attached Fact Sheet and list of TLV gases).

IMPLEMENTATION OF THE ORDINANCE BY THE HMD

- ◆ A toxic compressed gas will be a billable inventory item if it is required to be inventoried pursuant to the State inventory disclosure or the County Ordinance requirements.

**San Diego County Department of Environmental Health and Quality
Hazardous Materials Division (HMD)**

Toxic Compressed Gas FAQ Sheet

Section 68.1113, (b) was added to the San Diego County Code in May of 1996. This section requires any business which handles compressed gases with a Threshold Limit Value of 10 parts per million or less to report these gases as part of their chemical inventory, in any quantity, and to prepare a business plan in conformance with Chapter 6.95 (commencing with section 25500) of Division 20 of the Health and Safety Code. This FAQ sheet has been developed to provide guidance to HMD Field staff and the regulated businesses within San Diego County.

- 1. What reference source will be applied by the HMD for determining which toxic compressed gases fall within the jurisdiction of the County Ordinance?***

The HMD will use the Threshold Limit Values (TLVs) for Chemical Substances and Physical Agents and Biological Exposure Indices (BEIs) that is published by the American Conference of Governmental Industrial Hygienists (ACGIH) as the sole reference for determining which toxic gases must be disclosed under the County Ordinance.

- 2. There are several hundred chemicals listed in the ACGIH publication, are all of these chemicals subject to the County Ordinance?***

No. Only the toxic chemical gases with a TLV-Time Weighted Average (TWA), TLV-Short Term Exposure Limit (STEL), or TLV-Ceiling (C) value of 10 parts per million (ppm) or less.

- 3. Will the HMD provide a summary of the toxic gases that have a TLV-TWA, TLV-STEL, or TLV-C of 10 ppm or less?***

Yes. The HMD will provide a list of toxic gases with a TLV-TWA, TLV-STEL, or TLV-C of 10 ppm or less. The HMD will update their list whenever ACGIH revises their publication. HMD's current list is based on ACGIH's 1995-1996 publication.

- 4. If a business has toxic compressed gases as inventory items below the State inventory disclosure amounts (i.e., 55 gallons, 500 pounds, 200 cubic feet), will the business be billed for these inventory items?***

Yes. A toxic compressed gas will be considered a billable item if it is required to be inventoried either due to the State inventory disclosure or the County Ordinance requirements.

Toxic Gas Threshold Limit Values (TLVs ≤10 ppm)

<u>GAS Chemical Name (Common Name)</u>	<u>CAS Registry</u>	<u>TWA ppm</u>	<u>STEL/Ceiling* ppm</u>	<u>IDLH ppm</u>	<u>Specific Volume ft³/lb at 70°F</u>	<u>1/SV lb/ft³</u>
Arsine	7784-42-1	0.05	NA		5.0	0.2
Boron Trifluoride	7637-07-2	NA	1*		5.7	0.175
Chlorine	7782-50-5	0.5	1		5.4	0.185
Chlorine Dioxide	10049-04-4	0.1	0.3		<	<
Chlorine Trifluoride	7790-91-2	NA	0.1*		<	<
Chloropicrin	76-06-2	0.1	NA		<	<
Cyanogen	460-19-5	10	NA		<	<
Cyanogen Chloride	506-74-4	NA	0.3*		<	<
Diborane	19287-45-7	0.1	NA		13.73	0.073
Dichlorofluoromethane	75-43-4	10	NA		<	<
Dimethylamine	121-69-7	5	15		8.6	0.116
Ethylamine	75-04-7	5	15		<	<
Ethylene Oxide	75-21-8	1	NA		8.43	0.119
Fluorine	7782-41-4	1	2		10.2	0.098
Germanium Tetrahydride	7782-65-2	0.2	NA		<	<
Hydrogen Bromide	10035-10-6	NA	3*		4.8	0.208
Hydrogen Chloride	7647-01-0	NA	5*		10.6	0.094
Hydrogen Cyanide	74-90-8	NA	4.7*		14.23	0.070
Hydrogen Fluoride (as F)	7664-39-3	NA	3*		19.3	0.052
Hydrogen Selenide	7783-07-5	0.05	NA		4.74	0.211
Hydrogen Sulfide	7783-06-4	10	15		11.3	0.088
Ketene	463-51-4	0.5	1.5*		<	<
Methyl Bromide	74-83-9	5	NA		4.1	0.244
Methylamine	74-89-5	5	15		<	<
Methyl Mercaptan	74-93-1	0.5	NA		8.0	0.125
Nitrogen Dioxide	10102-44-0	3	5		4.7	0.213
Nitrogen Trifluoride	7783-54-2	10	NA		<	<
Oxygen Difluoride	7783-41-7	NA	0.05*		<	<
Ozone	10028-15-6	0.05	0.1*		8.01	0.125
Perchloryl Fluoride	7616-94-6	3	6		<	<
Phosgene	75-44-5	0.1	NA		3.9	0.256
Phosphine	7803-51-2	0.3	1		11.4	0.088
Selenium Hexafluoride	7783-79-1	0.05	NA		<	<
Silicon Tetrahydride (Silane)	7803-62-5	5	NA		12.0	0.083
Stibine	7803-52-3	5	NA		<	<
Sulfur Dioxide	7446-09-5	2	5		5.9	0.169
Sulfuryl Fluoride (Vikane)	2699-79-81	5	10		<	<
Trimethylamine	75-50-3	5	15		6.0	0.167
Vinyl Chloride	75-01-4	5	NA		<	<

*** Indicates a ceiling value**

Specific Volume is the volume occupied by 1 lb of gas at STP

-Specific volume values are provided for many gases by *Linde*.

-Values in brackets <> indicate that no literature value has been found, and the SV may be estimated using the Ideal Gas Law: PV=nRT

where: P=1 atm, n=454/MW, R=0.082 (l atm/mol K), and T= 295K, giving:

Specific Volume = 387.833/MW ft³/lb where MW is the molecular weight of the gas, in gmol.

-Example:

Hydrogen gas MW = 2.08 gmol

this gives Specific Volume = 387.833 / (2.08) = 186.5 ft³/lb

The actual value, for comparison, is quite close to the Ideal Gas Law value: 192 ft³/lb.

◆**Reference:** 1995-1996 Threshold Limit Values (TLVs) for Chemical Substances and Physical Agents and Biological Exposure Indices (BELs), ACG