OCCUPATIONAL SAFETY FOR NITROUS OXIDE (N20)

Exposure:

There is a reason Nitrous Oxide is a controlled substance. It is dangerous to health as well as habit forming. By law an employer may not expose employees above the following established limit:

> The American Conference of Governmental Industrial Hygienists (ACGIH) has assigned nitrous oxide a threshold limit value (TLV) of 50 ppm (90 mg/m(3)) as a TWA for a normal 8-hour workday and a 40-hour workweek [ACGIH 1994, p. 28]. (See OSHA resource information at http://www.osha.gov/SLTC/healthguidelines/nitrousoxide/recognition.html

> National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL): 25 ppm, 46 mg/m3 TWA over the time exposed. [Note: REL for exposure to waste anesthetic gas.] http://www.cdc.gov/niosh/npg/npgd0465.html

> ICSC International Standards specifically warns that exposure should be avoided by pregnant women: http://www.cdc.gov/niosh/ipcsneng/neng0067.html

Nitrous Oxide Hazards

The Centers for Disease Control and Prevention (CDC) reports that dental workers are exposed to Nitrous Oxide (N20) during administration of this anesthetic gas to patients. Exposures should be minimized to prevent short-term behavioral and long-term reproductive health effects that can be produced by N20.
Source: http://www.cdc.gov/niosh/docs/hazardcontrol/hc3.html

Available NIOSH Resources

Pocket Guide to Chemical Hazards: http://www.cdc.gov/niosh/npg/default.html

Description: Includes Exposure limits, Respirator Recommendations, First Aid, more...
The Pocket Guide is a source of general industrial hygiene information on several hundred chemicals/classes found in the work environment. Key data provided for each chemical/substance includes name (including synonyms/trade names), structure/formula, CAS/RTECS Numbers, DOT ID, conversion factors, exposure limits, IDLH, chemical and physical properties, measurement methods, personal protection, respirator recommendations, symptoms, and first aid.

International Chemical Safety Cards: http://www.cdc.gov/niosh/ipcs/icstart.html
Description: Summarizes essential health and safety information on chemicals for their use at the "shop floor" level by workers and employers in factories, agriculture, construction and other work places.

ADDITIONAL RESOURCES
OSHA:
http://www.osha.gov/dts/chemicalsampling/data/CH_258300.html

Prop 65 includes N2O:
http://oehha.ca.gov/prop65/prop65_list/080108list.html