

NIOSH Recommendations for Occupational Safety and Health Standards (ต่อจากฉบับที่ ๖ ; Vol. 17 No. 7)

	Not controlled as such	Reduce exposure to lowest feasible level; replace with less toxic materials	Cancer	Urine monitoring suggested
Benzidine-based dyes (Special Hazard Review November 1979; reaffirmed January 1983)				
Benzoyl peroxide (June 1977)	5 mg/m ³ , 8-hr TWA	5 mg/m ³ TWA	Respiratory and eye irritation; skin effects	None
Benzyl chloride (August 1978)	5 mg/m ³ (1 ppm), 8-hr TWA	5 mg/m ³ ceiling (15 min)	Irritation; skin and eye effects	Chest X-ray and pulmonary function testing required
Beryllium (June 1972; revised August 1977 as part of NIOSH testimony at OSHA hearing)	2 µg/m ³ , 8-hr TWA; 5 µg/m ³ acceptable ceiling; 25 µg/m ³ maximum ceiling (30 min)	Not to exceed 0.5 µg/m ³	Lung cancer	Pulmonary function testing chest X-ray, and sputum cytology required
Boron trifluoride (December 1976)	1 ppm (3 mg/m ³) ceiling	No exposure limit recommended due to the absence of a reliable monitoring method	Respiratory effects	Appropriate engineering and work-practice controls to reduce exposure to lowest feasible level; pulmonary function testing required
1,3-Butadiene (CIB February 1984)	1,000 ppm (2,200 mg/m ³), 8-hr TWA	Reduce exposure to lowest feasible level	Cancer; teratogenicity; reproductive effects	Appropriate engineering and work-practice controls; restrict access to areas where 1,3-butadiene is used

*Date recommendation was transmitted to OSHA is in parentheses.

†NIOSH TWA recommendations are based on exposures up to 10 hours unless otherwise noted.

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NIOSH Recommendations			
Potential Hazard*	OSHA Standard	NIOSH Recommended Exposure Limit(s) [†]	Health Effect(s) Considered
Cadmium (August 1976; revised in CIB September 1984)	Fume: 0.1 mg/m ³ , 8-hr TWA; 0.3 mg/m ³ ceiling; dust: 0.2 mg/m ³ , 8-hr TWA; 0.6 mg/m ³ ceiling	Reduce exposure to lowest feasible level	Lung cancer
Carbaryl (September 1976)	5 mg/m ³ , 8-hr TWA	5 mg/m ³ TWA	Central nervous system and reproductive system effects
Carbon black (September 1978)	3.5 mg/m ³ , 8-hr TWA	3.5 mg/m ³ TWA; 0.1 mg/m ³ TWA in presence of polycyclic aromatic hydrocarbons	Workers to be warned of possible effects on reproductive system and to have only minimum exposure during pregnancy; skin and eye contact to be prevented
Carbon dioxide (August 1976)	5,000 ppm (9,000 mg/m ³), 8-hr TWA	10,000 ppm (18,000 mg/m ³) TWA; 30,000 ppm (54,000 mg/m ³) ceiling (10 min)	Chest X-rays, pulmonary function testing, ECG, and sputum cytology required
Carbon disulfide (May 1977)	20 ppm, 8-hr TWA; 30 ppm acceptable ceiling; 100 ppm maximum ceiling (30 min)	1 ppm (3 mg/m ³) TWA; 10 ppm (30 mg/m ³) ceiling (15 min)	None
Carbon monoxide (August 1972)	50 ppm (55 mg/m ³), 8-hr TWA	35 ppm (40 mg/m ³), 8-hr TWA; 200 ppm (229 mg/m ³) ceiling (No minimum time)	Workers to be advised of potential effects on reproductive system
Carbon tetrachloride (December 1975; revised June 1976)	10 ppm, 8-hr TWA; 25 ppm acceptable ceiling; 200 ppm maximum ceiling (5 min in 4 hr)	2 ppm (12.6 mg/m ³) ceiling 45 liter sample (60 min)	None
			Recommended standard based on lower limit of detection

Chlorine (May 1976)	1 ppm (3 mg/m ³) ceiling	0.5 ppm (1.45 mg/m ³) ceiling (15 min)	Eye and respiratory irritation	Chest X-rays required
Chloroform (September 1974; revised June 1976)	50 ppm (240 mg/m ³) ceiling	2 ppm (9.78 mg/m ³) ceiling 45 liter sample (60 min)	Liver or kidney tumors and central nervous system effects	None
Chloroprene (August 1977)	25 ppm (90 mg/m ³), 8-hr TWA	1 ppm (3.6 mg/m ³) ceiling (15 min)	Reproductive effects; potential for cancer	Chest X-ray and pulmonary function testing required; pregnant workers to be counseled about continuing work with chloroprene
Chromic acid (July 1973; revised—see Chromium (VI), December 1975)	1 mg/10 m ³ ceiling	25 µg/m ³ TWA; 50 µg/m ³ ceiling (15 min) as noncarcinogenic Cr (VI)	Nasal ulceration	None
Chromium (VI) (December 1975)	100 µg chromates/m ³ ceiling	Carcinogenic Cr (VI): 1 µg/m ³ TWA; other Cr (VI): 25 µg/m ³ TWA; 50 µg/m ³ ceiling (15 min)	Lung cancer; skin ulcers; and lung irritation	Employer must demonstrate absence of carcinogenic Cr (VI); X-ray required
Chrysene (Special Hazard Review June 1978)	None	To be controlled as an occupational carcinogen	Cancer	Document also contains control recommendations for polycyclic aromatic hydrocarbons
Coal gasification plants (September 1978)	OSHA PEL's or NIOSH REL's for specific hazards are applicable		Various effects depending on substances present; carcinogenic potential	Extensive work-practice and control procedures recommended

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(อ่านต่อฉบับที่ ๑ ; Vol. 17 No. 9)