

## 7. REGULATIONS AND ADVISORIES

The International Agency for Research on Cancer (IARC) and national and state regulations and guidelines pertinent to human exposure to 1,3-butadiene are summarized in Table 7-1.

1,3-Butadiene has been deleted from the list of extremely hazardous substances (EPA 1988b).

## 7. REGULATIONS AND ADVISORIES

TABLE 7-1. Regulations and Guidelines Applicable to 1,3-Butadiene

Agency	Description	Information	References
<u>INTERNATIONAL</u>			
IARC	Carcinogenic classification	Group 2B <sup>a</sup>	IARC 1985,1987
<u>NATIONAL</u>			
Regulations:			
a. Air:			
EPA OAQPS	Intent to list under Section 112 of Clean Air Act	Yes	EPA 1985b (40 CFR 61.01)
OSHA	PEL	1000 ppm (transitional limit; in process of 6(b) rulemaking)	OSHA 1989 (29 CFR 1910.2926)
	PEL STEL	2 ppm (proposed) 10 ppm (proposed)	OSHA 1990 (29 CFR 1910.32736)
b. Nonspecific media:			
EPA OERR	Reportable quantity (statutory) Threshold planning quantity	1 lb 10,000 lb	EPA 1987 (40 CFR 300 and 355)
Guidelines:			
a. Air:			
ACGIH	TLV	10 ppm (suspected human carcinogen)	ACGIH 1989
NIOSH	REL	Carcinogen; lowest feasible concentration	NIOSH 1988
b. Other:			
EPA	Carcinogenic classification Inhalation slope factor Inhalation unit risk <sup>c</sup>	Group B2 <sup>b</sup> 1.8 (mg/kg/day) <sup>-1</sup> 6.2x10 <sup>-4</sup> (ppb) <sup>-1</sup> 2.8x10 <sup>-4</sup> (µg/m <sup>3</sup> ) <sup>-1</sup>	EPA 1985a IRIS 1991
<u>STATE</u>			
Regulations and Guidelines:			
a. Air:			
Connecticut	Acceptable ambient air concentrations	22,000 µg/m <sup>3</sup> (8-hr avg)	NATICH 1988 State of Kentucky 1986
Kentucky		11 mg/m <sup>3</sup> (8-hr avg)	
Massachusetts		0.0350 µg/m <sup>3</sup> (24-hr avg)	NATICH 1988
Michigan		0.0030 µg/m <sup>3</sup> (annual)	NATICH 1988
North Carolina		0.0350 µg/m <sup>3</sup> (annual)	NATICH 1988
Nevada		52.40 mg/m <sup>3</sup> (8-hr avg)	NATICH 1988
Virginia		220.0000 µg/m <sup>3</sup> (24-hr avg)	NATICH 1988

<sup>a</sup>Group 2B: Possible human carcinogen<sup>b</sup>Group B2: Probable human carcinogen<sup>c</sup>The unit risk should not be used if the air concentration exceeds 7.2 ppb, since above this concentration, the slope factor may differ from that stated (IRIS 1991).

ACGIH = American Conference of Governmental Industrial Hygienists; EPA = Environmental Protection Agency; IARC = International Agency for Research on Cancer; IRIS = Integrated Risk Information System; NATICH = National Air Toxics Information Clearinghouse; NIOSH = National Institute for Occupational Safety and Health; OAQPS = Office of Air Quality Planning and Standards; OERR = Office of Emergency and Remedial Response; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit; REL = Recommended Exposure Limit; STEL = Short-Term Exposure Limit; TLV = Threshold Limit Value; TWA = Time-Weighted Average