

7. REGULATIONS AND ADVISORIES

Because of its potential to cause adverse health effects in exposed people, a number of regulations and guidelines have been established for bromomethane by various national and state agencies. These values are summarized in Table 7-1.

7. REGULATIONS AND ADVISORIES

TABLE 7-1. Regulations and Guidelines Applicable to Bromomethane

Agency	Description	Information	References
<u>INTERNATIONAL</u>			
IARC	Carcinogenic classification	Group 3*	IARC 1987
<u>NATIONAL</u>			
Regulations:			
a. Air:			
OSHA	PEL TWA	5 ppm (20 mg/m ³), skin	OSHA 1989 (29 CFR 1910.1000) Table Z-1-A
b. Water:			
EPA ODW	Monitoring requirements for unregulated contaminants	Yes	EPA 1987b (40 CFR 142)
EPA OWRS	General permits under NPDES	Yes	40 CFR 122, Appendix D, Table II
	General Pretreatment Regulations for Existing and New Sources of Pollution	Yes	40 CFR 403
	Hazardous substance	Yes	40 CFR 116
	Reportable quantity	1,000 pounds	40 CFR 117.3
c. Food:			
EPA OPP	Tolerances for residues of inorganic bromides resulting from fumigation with methyl bromide in or on raw agricultural commodities	5-240 ppm	40 CFR 180.123
	Tolerances for residues of inorganic bromide resulting from soil treatment with combinations of chloropicrin, methyl bromide and propargyl bromide	25-300 ppm	40 CFR 180.199
FDA	Tolerances of inorganic bromide in processed food as a result of fumigation with methyl bromide	125-400 ppm	21 CFR 193.250
	Tolerances for residues of inorganic bromide from fumigation with methyl bromide on cereal grains and processed grains used in production of fermented malt beverages	125 ppm	21 CFR 193.225, 193.230
d. Other:			
EPA OERR	Reportable quantity	1,000 pounds	EPA 1989a,b (40 CFR 302.4)
	Extremely Hazardous Substance Threshold Planning Quantity	1,000 pounds	EPA 1987a (40 CFR 355)
EPA OPP	Restricted use pesticide	Yes	40 CFR 162.31

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TABLE 7-1 (Continued)

Agency	Description	Information	References
NATIONAL (Cont.)			
EPA OSW	Hazardous Waste Constituent (Appendix VIII)	Yes	EPA 1980b (40 CFR 261)
	Groundwater monitoring list (Appendix IX)	Yes	EPA 1987c (40 CFR 264)
	Land disposal restrictions	Yes	EPA 1987d, 1988b (40 CFR 268)
EPA OTS	Toxic chemical release reporting rule	Yes	EPA 1988a (40 CFR 372)
	Health and safety data reporting rule	Yes	EPA 1988c (40 CFR 716.120)
Guidelines:			
a. Air:			
ACGIH	TLV TWA	5 ppm (19 mg/m ³)	ACGIH 1991
NIOSH	IDLH	2,000 ppm	NIOSH 1990
	REL	carcinogen; lowest feasible concentration	
b. Water:			
EPA OWRS	Ambient Water Quality Criteria Ingesting water and organisms: Ingesting organisms only: For noncarcinogenic effects	1.9x10 ⁻⁴ mg/L ^b 1.57x10 ⁻² mg/L ^b 1.4 mg/L	EPA 1980a
c. Other:			
EPA	Carcinogenic Classification Oral RfD	Group D ^c 1.4x10 ⁻³ mg/kg/day	EPA 1989c, IRIS 1989
STATE			
Regulations and Guidelines:			
a. Air:			
	Acceptable ambient air concentrations		NATICH 1989
Connecticut		400 µg/m ³ (8 hr)	
Kansas		47.6 µg/m ³ (annual)	
Massachusetts		2.6 µg/m ³ (24 hr)	
Nevada		0.476 mg/m ³ (8 hr)	
North Dakota		0.20 mg/m ³ (8 hr)	
Pennsylvania (Philadelphia)		480 µg/m ³ (1 yr)	
South Carolina		100 µg/m ³ (24 hr)	
Vermont		0.01 µg/m ³ (annual)	
Virginia		350 µg/m ³ (24 hr)	
b. Water:			
	Drinking water quality standards		FSTRAC 1988
Arizona		2.5 µg/L	
Kansas		0.19 µg/L	
Massachusetts		0.01 mg/L	ORS 1989

^aGroup 3: Not classifiable as to carcinogenic potential.

^bValues for incremental lifetime cancer risk of 10⁻⁶ for halomethanes as a class based on carcinogenicity of chloroform.

^cGroup D: Not classifiable as to human carcinogenicity.

ACGIH = American Conference of Governmental Industrial Hygienists; EPA = Environmental Protection Agency; FDA = Food and Drug Administration; IARC = International Agency for Research on Cancer; IDLH = Immediately Dangerous to Life or Health Level; NIOSH = National Institute for Occupational Safety and Health; NPDES = National Pollutant Discharge Elimination System; ODW = Office of Drinking Water; OERR = Office of Emergency and Remedial Response; OPP = Office of Pesticide Products; OSHA = Occupational Safety and Health Administration; OSW = Office of Solid Wastes; OTS = Office of Toxic Substances; OWRS = Office of Water Regulations and Standards; PEL = Permissible Exposure Limit; REL = recommended exposure limit; RfD = reference dose; TLV = Threshold Limit Value; TWA = Time-Weighted Average

