CHAPTER 7. REGULATIONS AND GUIDELINES

Pertinent international and national regulations, advisories, and guidelines regarding carbon disulfide in air, water, and other media are summarized in Table 7-1. This table is not an exhaustive list, and current regulations should be verified by the appropriate regulatory agency.

ATSDR develops MRLs, which are substance-specific guidelines intended to serve as screening levels by ATSDR health assessors and other responders to identify contaminants and potential health effects that may be of concern at hazardous waste sites. See Section 1.3 and Appendix A for detailed information on the MRLs for carbon disulfide.

Table 7-1. Regulations and Guidelines Applicable to Carbon Disulfide

Agency	Description	Information	Reference
	Air		
EPA	RfC	0.7 mg/m^3 (0.2 ppm)	IRIS 2002
WHO	Air quality guidelines	100 µg/m^3 (0.03 ppm)[a] averaged over 24 hours	WHO 2000
	Water & Food		
EPA	Drinking water standards and health advisories	Not listed	EPA 2018a
	National primary drinking water regulations	Not listed	EPA 2009
	RfD	0.1 mg/kg/day	IRIS 2002
WHO	Drinking water quality guidelines	Not listed	WHO 2022
FDA	Substances added to food (formerly EAFUS)	Not listed	FDA 2023
	Cancer		
HHS	Carcinogenicity classification	Not evaluated	NTP 2021
EPA	Carcinogenicity classification	Not evaluated	IRIS 2002
IARC	Carcinogenicity classification	Not evaluated	IARC 2023
	Occupational		
OSHA	PEL (8-hour TWA) for general industry	20 ppm (60 mg/m^3)[b]	OSHA 2021a
	Ceiling limit	30 ppm	
	Maximum peak for an 8-hour shift	100 ppm for 30 minutes	
	PEL (8-hour TWA) for construction and shipyards	20 ppm (60 mg/m^3)[c]	OSHA 2021b, 2021c
NIOSH	REL (up to 10-hour TWA)	1 ppm (3 mg/m^3)[d]	NIOSH 2019
	STEL (15-minute TWA)	10 ppm (30 mg/m^3)	
	IDLH	500 ppm	

Table 7-1. Regulations and Guidelines Applicable to Carbon Disulfide

Agency	Description	Information	Reference
	Emergency Criteria		
EPA	AEGLs-air		EPA 2018b
	AEGL 1[e]		
	10-minute	17 ppm	
	30-minute	17 ppm	
	60-minute	13 ppm	
	4-hour	8.4 ppm	
	8-hour	6.7 ppm	
	AEGL 2[e]		
	10-minute	200 ppm	
	30-minute	200 ppm	
	60-minute	160 ppm	
	4-hour	100 ppm	
	8-hour	50 ppm	
	AEGL 3[e]		
	10-minute	600 ppm	
	30-minute	600 ppm	
	60-minute	480 ppm	
	4-hour	300 ppm	
	8-hour	150 ppm	
DOE	PACs-air		DOE 2018a
	PAC-1[f]	13 ppm	
	PAC-2[f]	160 ppm	
	PAC-3[f]	480 ppm	

[a]A guideline value of 20 µg/m^3 (0.006 ppm), averaged over 30 minutes, based on sensory effects, is recommended when carbon disulfide is used as an index substance for viscose emissions (WHO 2000).
[b]Reflects the exposure limit that was in effect prior to the issuance of newer limits (carbon disulfide PEL of 4 ppm and STEL of 12 ppm) on January 19, 1989, which were then vacated by the Eleventh Circuit Court of Appeals on July 7, 1992 (NIOSH 2018).
[c]Skin designation.
[d]Skin notation.
[e]Definitions of AEGL terminology are available from EPA (2018c).
[f]Definitions of PAC terminology are available from DOE (2018b).

AEGL = acute exposure guideline levels; DOE = Department of Energy; EAFUS = Everything Added to Food in the United States; EPA = Environmental Protection Agency; FDA = Food and Drug Administration; HHS = Department of Health and Human Services; IARC = International Agency for Research on Cancer; IDLH = immediately dangerous to life or health; IRIS = Integrated Risk Information System; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PAC = protective action criteria; PEL = permissible exposure limit; REL = recommended exposure limit; RfC = inhalation reference concentration; RfD = oral reference dose; STEL = short-term exposure limit; TWA = time-weighted average; WHO = World Health Organization