

## CHAPTER 7. REGULATIONS AND GUIDELINES

Pertinent international and national regulations, advisories, and guidelines regarding 1,2-dichloroethene 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 1,2-dichloroethene.

**Table 7-1. Regulations and Guidelines Applicable to 1,2-Dichloroethene**

Agency	Description	Information	Reference
<b>Air</b>			
EPA	RfC	Information reviewed but value not estimated	IRIS <a href="#">2010a</a> , <a href="#">2010b</a>
	Provisional peer-reviewed toxicity values		
	cis-1,2-Dichloroethene		
	Screening provisional chronic RfC	4x10 <sup>-2</sup> mg/m <sup>3</sup> (0.01 ppm)	<a href="#">EPA 2022d</a>
	Screening provisional subchronic RfC	4x10 <sup>-1</sup> mg/m <sup>3</sup> (0.1 ppm)	
	trans-1,2-Dichloroethene		
	Screening provisional chronic RfC	4x10 <sup>-2</sup> mg/m <sup>3</sup> (0.01 ppm)	<a href="#">EPA 2020b</a>
	Screening provisional subchronic RfC	4x10 <sup>-1</sup> mg/m <sup>3</sup> (0.1 ppm)	
WHO	Air quality guidelines	Not listed	<a href="#">WHO 2010</a>
<b>Water &amp; Food</b>			
EPA	Drinking water standards and health advisories		<a href="#">EPA 2018a</a>
	cis-1,2-Dichloroethene		
	1-Day health advisory (10-kg child)	4 mg/L	
	10-Day health advisory (10-kg child)	3 mg/L	
	DWEL	0.07 mg/L	
	Lifetime health advisory	0.01 mg/L	
	trans-1,2-Dichloroethene		
	1-Day health advisory (10-kg child)	20 mg/L	
	10-Day health advisory (10-kg child)	2 mg/L	
	DWEL	0.7 mg/L	
	Lifetime health advisory	0.1 mg/L	

## 7. REGULATIONS AND GUIDELINES

**Table 7-1. Regulations and Guidelines Applicable to 1,2-Dichloroethene**

Agency	Description	Information	Reference
	National primary drinking water regulations		<a href="#">EPA 2023</a>
	cis-1,2-Dichloroethene		
	MCL	0.07 mg/L	
	MCLG	0.07 mg/L	
	trans-1,2-Dichloroethene		
	MCL	0.1 mg/L	
	MCLG	0.1 mg/L	
	RfD		
	cis-1,2-Dichloroethene	0.002 mg/kg/day	<a href="#">IRIS 2010a</a>
	trans-1,2-Dichloroethene	0.02 mg/kg/day	<a href="#">IRIS 2010b</a>
	Provisional peer-reviewed toxicity values		<a href="#">EPA 2011c</a>
	cis-1,2-Dichloroethene		
	Provisional subchronic RfD	$2 \times 10^{-2}$ mg/kg/day	
WHO	Drinking water quality guidelines		<a href="#">WHO 2022</a>
	1,2-Dichloroethene		
	guideline value	0.05 mg/L (50 µg/L)	
	TDI	17 µg/kg body weight	
FDA	Substances added to food (formerly EAFUS)	Not listed	<a href="#">FDA 2024</a>
	Indirect food additives regulations	Permitted as a	<a href="#">FDA 2023a</a>
	1,2-Dichloroethene (mixed isomers)	component of adhesives	
	Allowable level in bottled water		<a href="#">FDA 2023b</a>
	cis-1,2-Dichloroethene	0.07 mg/L	
	trans-1,2-Dichloroethene	0.1 mg/L	
<b>Cancer</b>			
HHS	Carcinogenicity classification	Not evaluated	<a href="#">NTP 2021</a>
EPA	Carcinogenicity classification	Inadequate information to assess carcinogenic potential	IRIS <a href="#">2010a</a> , <a href="#">2010b</a>
IARC	Carcinogenicity classification	Not evaluated	<a href="#">IARC 2024</a>
<b>Occupational</b>			
OSHA	PEL (8-hour TWA) for general industry, shipyards and construction		OSHA <a href="#">2023a</a> , <a href="#">2023b</a> , <a href="#">2023c</a>
	1,2-Dichloroethene	200 ppm (790 mg/m <sup>3</sup> )	
NIOSH	REL (up to 10-hour TWA)		<a href="#">NIOSH 2019</a>
	1,2-Dichloroethene	200 ppm (790 mg/m <sup>3</sup> )	
	IDLH		
	1,2-Dichloroethene	1,000 ppm	

## 7. REGULATIONS AND GUIDELINES

**Table 7-1. Regulations and Guidelines Applicable to 1,2-Dichloroethene**

Agency	Description	Information	Reference
<b>Emergency Criteria</b>			
EPA	AEGLs-air		<a href="#">EPA 2018b</a>
	cis-1,2-Dichloroethene		
	AEGL 1 <sup>a</sup>		
	10-minute	140 ppm	
	30-minute	140 ppm	
	60-minute	140 ppm	
	4-hour	140 ppm	
	8-hour	140 ppm	
	AEGL 2 <sup>a</sup>		
	10-minute	500 ppm	
	30-minute	500 ppm	
	60-minute	500 ppm	
	4-hour	340 ppm	
	8-hour	230 ppm	
	AEGL 3 <sup>a</sup>		
	10-minute	850 ppm	
	30-minute	850 ppm	
	60-minute	850 ppm	
	4-hour	620 ppm	
	8-hour	310 ppm	
	trans-1,2-Dichloroethene		
	AEGL 1 <sup>a</sup>		
	10-minute	280 ppm	
	30-minute	280 ppm	
	60-minute	280 ppm	
	4-hour	280 ppm	
	8-hour	280 ppm	
	AEGL 2 <sup>a</sup>		
	10-minute	1,000 ppm	
	30-minute	1,000 ppm	
	60-minute	1,000 ppm	
	4-hour	690 ppm	
	8-hour	450 ppm	
	AEGL 3 <sup>a</sup>		
	10-minute	1,700 ppm	
	30-minute	1,700 ppm	
	60-minute	1,700 ppm	
	4-hour	1,200 ppm	
	8-hour	620 ppm	

## 7. REGULATIONS AND GUIDELINES

**Table 7-1. Regulations and Guidelines Applicable to 1,2-Dichloroethene**

Agency	Description	Information	Reference
DOE	PACs-air		<a href="#">DOE 2024a</a>
	1,2-Dichloroethene		
	PAC-1 <sup>b</sup>	140 ppm	
	PAC-2 <sup>b</sup>	500 ppm	
	PAC-3 <sup>b</sup>	850 ppm	
	cis-1,2-Dichloroethene		
	PAC-1 <sup>b</sup>	140 ppm	
	PAC-2 <sup>b</sup>	500 ppm	
	PAC-3 <sup>b</sup>	850 ppm	
	trans-1,2-Dichloroethene		
	PAC-1 <sup>b</sup>	280 ppm	
	PAC-2 <sup>b</sup>	1,000 ppm	
	PAC-3 <sup>b</sup>	1,700 ppm	

<sup>a</sup>Definitions of AEGL terminology are available from U.S. Environmental Protection Agency (EPA 2018c).

<sup>b</sup>Definitions of PAC terminology are available from U.S. Department of Energy (DOE 2024b).

AEGL = acute exposure guideline level; DOE = Department of Energy; DWEL = drinking water equivalent level; 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; MCL = maximum contaminant level; MCLG = maximum contaminant level goal; 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; TDI = tolerable daily intake; TWA = time-weighted average; WHO = World Health Organization