

CHAPTER 7. REGULATIONS AND GUIDELINES

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

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

Agency	Description	Information	Reference
Air			
EPA	RfC	4×10^{-3} mg/m ³ (0.0009 ppm)	EPA 1991
	Provisional peer reviewed toxicity values Provisional subchronic RfC	4×10^{-3} mg/m ³ (0.0009 ppm)	EPA 2016a
WHO	Air quality guidelines	Not listed	WHO 2010
Water & Food			
EPA	Drinking water standards and health advisories		EPA 2018a
	10-Day health advisory (10-kg child)	0.09 mg/L	
	10 ⁻⁴ Cancer risk	0.06 mg/L	
	National primary drinking water regulations MCL	0.005 mg/L	EPA 2009
	RfD	Not evaluated	EPA 1991
	Provisional peer reviewed toxicity values Provisional chronic and subchronic RfD	4×10^{-2} mg/kg/day	EPA 2016a
WHO	Drinking water quality guidelines		WHO 2017
	Provisional guideline value	0.04 mg/L	
	TDI	14 µg/kg body weight	
FDA	Substances added to food ^a	No data	FDA 2020
Cancer			
HHS	Carcinogenicity classification	No data	NTP 2016
EPA	Provisional peer reviewed toxicity values		EPA 2016a
	Carcinogenicity classification	Likely to be carcinogenic to humans	
	Provisional inhalation unit risk	3.7×10^{-3} (mg/m ³) ⁻¹	
	Provisional oral slope factor	3.7×10^{-2} (mg/kg/day) ⁻¹	
IARC	Carcinogenicity classification	Group 1 ^b	IARC 2017

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

Agency	Description	Information	Reference
Occupational			
OSHA	PEL (8-hour TWA) for general industry, shipyards, and construction	75 ppm (350 mg/m ³)	OSHA 2020a , 2020b , 2020c
NIOSH	REL (up to 10-hour TWA)	Ca ^c	NIOSH 2019
	IDLH	400 ppm ^c	NIOSH 2014
Emergency Criteria			
EPA	AEGLs-air	Not listed	EPA 2018b
DOE	PACs-air		DOE 2018a
	PAC-1 ^d	30 ppm	
	PAC-2 ^d	220 ppm	
	PAC-3 ^d	2,000 ppm	

^aThe Substances Added to Food inventory replaces EAFUS and contains the following types of ingredients: food and color additives listed in FDA regulations, flavoring substances evaluated by FEMA or JECFA, GRAS substances listed in FDA regulations, substances approved for specific uses in food prior to September 6, 1958, substances that are listed in FDA regulations as prohibited from use in food, delisted color additives, and some substances "no longer FEMA GRAS".

^bGroup 1: carcinogenic to humans.

^cPotential occupational carcinogen.

^dDefinitions of PAC terminology are available from U.S. Department of Energy (DOE 2018b).

AEGL = acute exposure guideline levels; DOE = Department of Energy; EAFUS = Everything Added to Food in the United States; EPA = U.S. Environmental Protection Agency; FDA = Food and Drug Administration; FEMA = Flavor and Extract Manufacturers Association of the United States; GRAS = generally recognized as safe; 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; JECFA = Joint FAO/WHO Expert Committee on Food Additives; MCL = maximum contaminant level; 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