

## CHAPTER 7. REGULATIONS AND GUIDELINES

Pertinent international and national regulations, advisories, and guidelines regarding tribufos 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 tribufos.

**Table 7-1. Regulations and Guidelines Applicable to Tribufos**

Agency	Description	Information	Reference
<b>Air</b>			
EPA	RfC	No data	<a href="#">EPA 2000a, 2006</a>
WHO	Air quality guidelines	No data	<a href="#">WHO 2010</a>
<b>Water &amp; Food</b>			
EPA	Drinking water standards and health advisories	No data	<a href="#">EPA 2018a</a>
	National primary drinking water regulations	No data	<a href="#">EPA 2009</a>
	Acute RfD	0.01 mg/kg/day <sup>a</sup>	<a href="#">EPA 2000a</a>
	Chronic RfD	0.001 mg/kg/day <sup>b</sup>	
	Tolerances for pesticide chemical residues in or on food commodities		<a href="#">EPA 2019c</a>
	Milk	0.01 ppm	
	Meat/meat byproducts (cattle, goat, hog, horse, sheep)	0.02 ppm	
	Fat (cattle, goat, hog, horse, sheep)	0.15 ppm	
	Undelinted cottonseed	4 ppm	
	Cotton gin byproducts	40 ppm	
WHO	Drinking water quality guidelines	No data	<a href="#">WHO 2017</a>
FDA	Substances Added to Food	No data <sup>c</sup>	<a href="#">FDA 2019</a>
<b>Cancer</b>			
HHS	Carcinogenicity classification	No data	<a href="#">NTP 2016</a>
EPA	Carcinogenicity classification	Unlikely human carcinogen at low doses; likely human carcinogen at high doses	EPA 1997
IARC	Carcinogenicity classification	No data	<a href="#">IARC 2019</a>

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**Table 7-1. Regulations and Guidelines Applicable to Tribufos**

Agency	Description	Information	Reference
<b>Occupational</b>			
ACGIH	TLV (TWA)	No data	ACGIH 2018
OSHA	PEL (8-hour TWA) for general industry, shipyards, and construction	No data	<a href="#">OSHA 2018a</a>
	PEL (8-hour TWA) for shipyards and construction	No data	<a href="#">OSHA 2018b</a>
	PEL (8-hour TWA) for construction	No data	<a href="#">OSHA 2018c</a>
NIOSH	REL (up to 10-hour TWA)	No data	<a href="#">NIOSH 2018</a>
<b>Emergency Criteria</b>			
EPA	AEGLs-air	No data	<a href="#">EPA 2018b</a>
DOE	PACs-air	No data	<a href="#">DOE 2018</a>

<sup>a</sup>The acute RfD of 0.01 mg/kg/day was derived from a NOAEL of 1 mg/kg/day based on decreases in plasma, and a LOAEL of 7 mg/kg/day for RBC ChE activity in a prenatal developmental toxicity study in rats.

<sup>b</sup>The chronic RfD of 0.001 mg/kg/day was derived from a NOAEL of 0.1 mg/kg/day based on plasma ChE inhibition in a chronic toxicity study in dogs.

<sup>c</sup>The Substances Added to Food inventory replaces the EAFUS list.

ACGIH = American Conference of Governmental Industrial Hygienists; AEGL = acute exposure guideline levels; ChE = cholinesterase; DOE = Department of Energy; EAFUS = Everything Added to Food in the United States; EPA = Environmental Protection Agency; FAO = Food and Agricultural Organization of the United Nations; FDA = Food and Drug Administration; FQPA = Food Quality Protection Act; HHS = Department of Health and Human Services; IARC = International Agency for Research on Cancer; LOAEL = Lowest observed adverse effect level; NIOSH = National Institute for Occupational Safety and Health; NOAEL = No observed adverse effect level; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PAC = protective action criteria; PAD = population adjusted dose; PEL = permissible exposure limit; RBC = red blood cell; REL = recommended exposure limit; RfC = inhalation reference concentration; RfD = oral reference dose; TLV = threshold limit value; TWA = time-weighted average; WHO = World Health Organization