

## 7. REGULATIONS AND ADVISORIES

International, national, and state regulations and guidelines pertinent to human exposure to titanium tetrachloride are summarized in Table 7-1.

ATSDR has derived an intermediate-duration inhalation MRL of  $0.01 \text{ mg/m}^3$  for titanium tetrachloride based on a mild lung dust cell reaction and increased relative lung weight in rats after intermittent exposure to titanium tetrachloride hydrolysis products for 4 weeks (DuPont 1979).

A chronic-duration inhalation MRL of  $0.0001 \text{ mg/m}^3$  was derived for titanium tetrachloride based on its ability to cause irregular breathing and lung noises in rats, along with rhinitis, tracheitis, and alveolar hyperplasia (Lee et al. 1986).

Titanium effluent limitations are in effect for discharges from the production of titanium at primary and secondary titanium facilities. The following existing point sources are subject to regulation: chlorination off-gas wet air pollution control, titanium tetrachloride handling wet air pollution control, reduction area wet air pollution control, melt cell wet air pollution control, chlorine liquefaction wet air pollution control, sodium reduction container reconditioning wash water, chip crushing wet air pollution control, acid leachate and rinse water, sponge crushing and screening wet air pollution control, acid pickle and wash water, scrap milling wet air pollution control, scrap detergent wash water, casting crucible wash water, and casting contact cooling water (EPA 1985a).

## 7. REGULATIONS AND ADVISORIES

**Table 7-1. Regulations and Guidelines Applicable to Titanium Tetrachloride**

Agency	Description	Information	References
<u>INTERNATIONAL</u>			
Guidelines:			
WHO	No information given		WHO 1984
<u>NATIONAL</u>			
Regulations:			
a. Air:			
EPA OAQPS	LOC - Levels of Concern for Each HAP	1.00 mg/m <sup>3</sup>	59 FR 15504 40 CFR 63.44 EPA 1994
	Short-term "demininis" Value for Each HAP	0.00159 lbs./hr	59 FR 15504 40 CFR 63.44 EPA 1994
EPA OERR	Regulated Toxic Substances and Threshold Quantities for Accidental Release Prevention	2,500 lbs.	40 CFR 68.130 EPA 1994
	List of Extremely Hazardous Substances and Their Threshold Planning Quantities	100 lbs.	40 CFR 355 Appendix A EPA 1987
b. Other:			
EPA OERR	Reportable Quantity (proposed)	100 lbs.	58 FR 54836 40 CFR 302.4 EPA 1993
	Toxic Chemical Release Reporting: Community-Right-To-Know	Yes	40 CFR 372.65 EPA 1988a
Guidelines:			
a: Air:			
NIOSH	Extremely Hazardous Substances and Data for Hazards Analysis Level of Concern	0.001 mg/m <sup>3</sup>	NIOSH 1992
<u>STATE</u>			
Regulations and Guidelines:			
a. Air:			
	Average Acceptable Ambient Air Concentrations		NATICH 1992
TX	30 minutes Annual	1.00x10 <sup>1</sup> µg/m <sup>3</sup> 1.00x10 <sup>1</sup> µg/m <sup>3</sup>	

CFR = Code of Federal Regulations; EPA = Environmental Protection Agency; FR = Federal Register; HAP = Hazardous Air Pollutant; NATICH = National Air Toxics Information Clearinghouse; NIOSH = National Institute of Occupational Safety and Health; OAQPS = Office of Air Quality Planning and Standards; OERR = Office of Emergency and Remedial Response; WHO = World Health Organization