

ANNEX A

**TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION
SUBPART D. ENVIRONMENTAL HEALTH AND SAFETY
ARTICLE VI. GENERAL HEALTH AND SAFETY
CHAPTER 250. ADMINISTRATION OF LAND RECYCLING PROGRAM**

* * * * *

Appendix A

Table 2 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR		

* * * * *

VANADIUM	7440-62-2	[2.4] <u>170</u> G	[6.8] <u>490</u> G	[240] <u>17,000</u> G	[680] <u>49,000</u> G	[2,400] <u>170,000</u> G	[6,800] <u>490,000</u> G
----------	-----------	--------------------	--------------------	-----------------------	-----------------------	--------------------------	--------------------------

* * * * *

All concentrations in µg/L (except asbestos)

* * * * *

G = Ingestion

* * * * *

Appendix A

Table 4 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN		Nonresidential MSCs
---------------------	-------	--	---------------------

		Residential MSC 0-15 feet	Surface Soil 0-2 feet	Subsurface Soil 2-15 feet
--	--	---------------------------------	--------------------------	---------------------------------

* * * * *

VANADIUM	7440-62-2	[15] 1,100	G	[220] 16,000	G	190,000	C
----------	-----------	-------------------	---	-------------------------	---	---------	---

* * * * *

All concentrations in mg/kg

* * * * *

G – Ingestion

* * * * *

Appendix A

Table 4 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values¹

REGULATED SUBSTANCE	CASRN	Used Aquifers								Nonuse Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L				TDS > 2500 mg/L				R		NR		
		R		NR		R		NR		R		NR		
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	

* * * * *

VANADIUM	7440-62-2	[0.24] 17	[240] 17,000	[0.68] 49	[680] 49,000	[24] 1,700	[24,000] 190,000	[68] 4,900	[68,000] 190,000	[240] 17,000	190,000	[680] 49,000	190,000	5
----------	-----------	----------------------	-------------------------	----------------------	-------------------------	-----------------------	------------------------------	-----------------------	------------------------------	-------------------------	---------	-------------------------	---------	---

* * * * *

All concentrations in mg/kg
R – Residential

* * * * *

Appendix A
 Table 5 – Physical and Toxicological Properties
 C. Inorganic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo (mg/kg-d) ⁻¹	RfCi (mg/m ³)	IUR (ug/m ³) ⁻¹	Kd
---------------------	-----	----------------	------------------------------	---------------------------	--	----

* * * * *

VANADIUM	7440-62-2	[0.00007] <u>0.005</u>	[P] ! d		0.0001	D		1,000
----------	-----------	---------------------------	-----------------------	--	--------	---	--	-------

* * * * *

Toxicity Value Sources:

C = California EPA Cancer Potency Factor

D = ATSDR Minimal Risk Level

H = Health Effects Assessment Summary Table (HEAST)

I = Integrated Risk Information System (IRIS)

P = EPA Provisional Peer-Reviewed Toxicity Value

X = EPA Provisional Peer-Reviewed Toxicity Value Appendix

Id = IRIS derived – Value derived from the IRIS oral RfD for Vanadium Pentoxide (0.009 mg/kg-day). Vanadium constitutes 56% of the molecular weight of the Vanadium Pentoxide molecule. 0.009 mg/kg-day x 0.56 = 0.005 mg/kg-day.