

NR 538 Beneficial Use Proposed Direct Contact Standards (Residential Exposure Scenario)				May 8, 2017					Revised Proposal May 2017		updated 5/5/17 20 days/yr & 50 ATVs/hr Recreational Trail ATV		updated 5/5/17 20 days/yr & 50 Bikes/hr Recreational Trail BIKE		updated 4/21/17 240 days/yr & 10 ATV/hr Occupational farm	
DRAFT				Current Table 2B	Original Proposed Standard (default occupational) HQ=0.2 TR=10 ⁻⁶	Endpoint	Unbonded Surface Course based Proposed Standard HQ=0.2 TR=10 ⁻⁶	Endpoint	New Proposed Standard (unbonded surface course scenario) HQ=0.2 TR=10 ⁻⁶	Endpoint	New Proposed Standard (unbonded surface course scenario) HQ=0.2 TR=10 ⁻⁶	Endpoint	New Proposed Standard (unbonded surface course scenario) HQ=0.2 TR=10 ⁻⁶	Endpoint		
Chemical	CAS Number	Mutagen?	VOC?	(mg/kg)	(mg/kg)			(mg/kg)		(mg/kg)		(mg/kg)				
Antimony (metallic)	7440-36-0	No	No		93.4	nc	97.3	nc	110	nc	110	nc	97.3	nc		
Arsenic, Inorganic	7440-38-2	No	No	21	8 ^[1]	BTV	8 ^[1]	BTV	11,000	ca**	11,400	ca**	2,990	ca*		
Barium	7440-39-3	No	No		43,700	nc	8,600.0	nc	17,200	nc	24,200	nc	8,600	nc		
Beryllium and compounds	7440-41-7	No	No	7	459	nc	122.0	ca*	280.00	ca**	416.00	nc	122.00	ca**		
Boron And Borates Only	7440-42-8	No	No		46,600	nc	43,600.0	nc	51,900	nc	53,100	nc	43,600	nc		
Cadmium (Diet)	7440-43-9	No	No		197	nc	104.0	ca**	167.00	nc	194.00	nc	104.00	nc		
Chromium(VI)	18540-29-9	Yes	No		6.36	ca	1.9	ca	1,880	ca	2,600	ca	2,300	ca		
Cobalt	7440-48-4	No	No		69.5	nc	32.5	ca*	64,500	nc	71,000	nc	32,500	ca**		
Copper	7440-50-8	No	No		9,340	nc	9,730.0	nc	11,000	nc	11,000	nc	9,730	nc		
Lead and Compounds	7439-92-1	No	No		52 ^[1]	BTV	52	BTV*								
Manganese (Non-diet)	7439-96-5	No	No		5,180	nc	2937 ^[1]	BTV	1,810	nc	2,620	nc	886	nc		
Mercury (elemental)	7439-97-6	No	Yes		13.2	sat	14.0	sat	163	sat	164	sat	14	sat		
Molybdenum	7439-98-7	No	No		1,170	nc	1,220	nc	1,370	nc	1,370	nc	1,220	nc		
Nickel Refinery Dust	NA	No	No		4,500	nc	264	ca*	568	nc	867	nc	264	nc		
Phenol	108-95-2	No	No		49,200	nc	50,700	nc	65,900	nc	66,100	nc	50,700	nc		
Selenium	7782-49-2	No	No		1,170	nc	1,210	nc	1,370	nc	1,370	nc	1,210	nc		
Silver	7440-22-4	No	No		1,170	nc	1,220	nc	1,370	nc	1,370	nc	1,220	nc		
Strontium, Stable	7440-24-6	No	No		140,000	max	146,000	nc	164,000	max	164,000	max	146,000	max		
Thallium (Soluble Salts)	7440-28-0	No	No		2.34	nc	2.4	nc	2.74	nc	2.74	nc	2.43	nc		
Vanadium and Compounds	7440-62-2	No	No		1,170	nc	773	nc	1,080	nc	1,190	nc	773	nc		
Zinc and Compounds	7440-66-6	No	No		70,100	nc	73,000	nc	82,100	nc	82,100	nc	73,000	nc		
Acenaphthene	83-32-9	No	Yes		9,040	nc	9,420	nc	12,600	nc	12,600	nc	9,420	nc		
Acenaphthylene	208-96-8	No	Yes		---	---	---	---								
Anthracene	120-12-7	No	Yes		45,200	nc	47,100	nc	62,800	nc	62,800	nc	47,100	nc		
Benzo[a]anthracene	56-55-3	Yes	Yes	44	2.88	ca	19.9	ca	19.90	ca	20.00	ca	21.50	ca		
Benzo[a]pyrene	50-32-8	Yes	No	4.4	0.29	ca	2.0	ca	2,000	ca*	2,000	ca*	2,190	ca*		
Benzo[b]fluoranthene	205-99-2	Yes	No	44	2.89	ca	20	ca	20.00	ca	20.00	ca	21.90	ca		
Benzo[g,h,i]perylene	191-24-2	No	No		---	---	---	---								
Benzo[k]fluoranthene	207-08-9	Yes	No		28.9	ca	200	ca								
Chrysene	218-01-9	Yes	No		289	ca	2,000	ca	200.00	ca	200.00	ca	219.00	ca		
Dibenz[a,h]anthracene	53-70-3	Yes	No	4.4	0.29	ca	2	ca	2,000	ca	2,000	ca	2,190	ca		
Fluoranthene	206-44-0	No	No		6,030	nc	6,280	nc	8,370	nc	8,370	nc	6,280	nc		
Fluorene	86-73-7	No	Yes		6,030	nc	6,280	nc	8,370	nc	8,370	nc	6,280	nc		
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	No	44	2.89	ca	20	ca	20,000	ca	20,000	ca	21,900	ca		
Methylnaphthalene, 1-	90-12-0	No	Yes		72.7	ca	75.8	ca	307.0	ca*	307.0	ca*	75.8	ca		
Methylnaphthalene, 2-	91-57-6	No	Yes		603	nc	628	nc	837	nc	837	nc	628	nc		
Naphthalene	91-20-3	No	Yes		24.1	ca**	25.1	ca*	286.00	ca**	288.00	ca**	25.1	ca**		
Phenanthrene	85-01-8	No	Yes		---	---	---	---								
Pyrene	129-00-0	No	Yes		4,520	nc	4,710	nc	6,280	nc	6,280	nc	4,710	nc		

Notes:
 HQ = Hazard Quotient
 TR = Target Risk
 sat= Soil Saturation Limit Concentration ca* (Where SL < 100 x ca SL)
 BTV* = Set at 1/10 of the industrial value which is based on the Background Threshold Value.

[1] Background Threshold Value is defined as non-outlier trace element maximum levels in WI surface soils.
 See Wis. Adm. Code NR 720. Also see DNR publication RR890: <http://dnr.wi.gov/files/PDF/pubs/rr/RR890.pdf>