

CHEMICAL DATA FOR SELECTED COCs

Physical Property Data

Constituent	CAS Number	type	Molecular Weight (g/mole)		Diffusion Coefficients				log (Koc) or log(Kd) (@ 20 - 25 C)				Henry's Law Constant (@ 20 - 25 C)				Vapor Pressure (@ 20- 25 C)		Solubility (@ 20 - 25 C)				acid pKa	base pKb	ref
					in air (cm2/s)		in water (cm2/s)		log(L/kg) partition		(atm-m3) mol (unitless)		ref		ref		ref								
			Dair	ref	Dwat	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref								
			MW	ref	Dair	ref	Dwat	ref	partition	ref	mol	(unitless)	ref	ref	ref	ref	ref	ref							
Benzene*	71-43-2	A	78,1	PS	8,80E-02	PS	9,80E-06	PS	1,77	Koc	PS	5,55E-03	2,29E-01	PS	9,52E+01	PS	1,75E+03	PS	-	-	-				
Ethylbenzene*	100-41-4	A	106,2	PS	7,50E-02	PS	7,80E-06	PS	2,56	Koc	PS	7,88E-03	3,25E-01	PS	1,00E+01	PS	1,69E+02	PS	-	-	-				
Toluene*	108-88-3	A	92,4	5	8,50E-02	A	9,40E-06	A	2,13	Koc	A	6,30E-03	2,60E-01	A	3,00E+01	4	5,15E+02	29	-	-	-				
Xylene (mixed isomers)*	1330-20-7	A	106,2	5	7,20E-02	A	8,50E-06	A	2,38	Koc	A	7,03E-03	2,90E-01	A	7,00E+00	4	1,98E+02	5	-	-	-				
TPH - Aliph >C06-C08*	0-00-0	T	100	T	1,00E-01	T	1,00E-05	T	3,60	Koc	T	1,17E+00	4,81E+01	T	4,79E+01	-	1,10E+01	T	-	-	-				
TPH - Aliph >C08-C10*	0-00-0	T	130	T	1,00E-01	T	1,00E-05	T	4,50	Koc	T	1,90E+00	7,85E+01	T	4,79E+00	-	4,30E-01	T	-	-	-				
TPH - Aliph >C10-C12*	0-00-0	T	160	T	1,00E-01	T	1,00E-05	T	5,40	Koc	T	2,96E+00	1,22E+02	T	4,79E-01	-	3,40E-02	T	-	-	-				
TPH - Aliph >C21-C34*	0-00-0	T	400	-	1,00E-01	-	1,00E-05	-	8,80	Koc	-	1,76E+02	7,26E+03	-	8,36E-04	-	2,50E-06	-	-	-	-				
TPH - Arom >C08-C10*	0-00-0	T	120	T	1,00E-01	T	1,00E-05	T	3,20	Koc	T	1,16E-02	4,80E-01	T	4,79E+00	-	6,50E+01	T	-	-	-				

* = Chemical with user-specified data

Site Name: Discarica di Rio Eremo

Completed By: Ingegneria e Servizi SD

Job ID: 701-07/1

Site Location: Cesena

Date Completed: d-mag-yy

	CHEMICAL DATA FOR SELECTED COCs	Toxicity Data
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Constituent	Reference Dose				Reference Conc.		Slope Factors				Unit Risk Factor		EPA Weight of Evidence	Is Constituent Carcinogenic ?
	(mg/kg/day)				(mg/m3)		1/(mg/kg/day)				1/(µg/m3)			
	(mg/kg/day)				(mg/m3)		1/(mg/kg/day)				1/(µg/m3)			
	Oral RfD_oral	ref	Dermal RfD_dermal	ref	Inhalation RfC_inhal	ref	Oral SF_oral	ref	Dermal SF_dermal	ref	Inhalation URF_inhal	ref		
Benzene*	4,00E-03	AP	-	-	2,99E-02	AP	5,50E-02	AP	2,99E-02	TX	8,29E-06	PS	A	VERO
Ethylbenzene*	1,00E-01	AP	9,70E-02	0,1	9,98E-01	AP	-	-	-	-	-	-	D	FALSO
Toluene*	8,00E-02	AP	1,60E-01	0,16	3,99E-01	AP	-	-	-	-	-	-	D	FALSO
Xylene (mixed isomers)*	2,00E-01	AP	1,84E+00	1,84	7,00E-01	AP	-	-	-	-	-	-	D	FALSO
TPH - Aliph >C06-C08*	4,00E-02	MA	-	-	7,00E-01	41	-	-	-	-	-	-	D	FALSO
TPH - Aliph >C08-C10*	1,00E-01	MA	-	-	2,00E-01	MA	-	-	-	-	-	-	D	FALSO
TPH - Aliph >C10-C12*	1,00E-01	MA	-	-	2,00E-01	MA	-	-	-	-	-	-	D	FALSO
TPH - Aliph >C21-C34*	2,00E+00	T	-	-	7,00E+00	da RfC	-	-	-	-	-	-	D	FALSO
TPH - Arom >C08-C10*	3,00E-02	MA	-	-	5,01E-02	MA	-	-	-	-	-	-	D	FALSO
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Site Name: Discarica di Rio Erer

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		Miscellaneous Chemical Data
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Constituent	Maximum Contaminant Level		Time-Weighted Average Workplace Criteria		Aquatic Life Prot. Criteria		Bioconcentration Factor (L-wat/kg-fish)
	MCL (mg/L)	ref	TWA (mg/m3)	ref	AQL (mg/L)	ref	
Benzene*	1,00E-03	-	3,25E+00	-	-	-	12,6
Ethylbenzene*	5,00E-02	CSC D.Lgs. 152/06	4,35E+02	-	-	-	1
Toluene*	1,50E-02	CSC D.Lgs. 152/06	1,47E+02	ACGIH	-	-	70
Xylene (mixed isomers)*	1,00E-02	DM 471/99	4,34E+02	ACGIH	-	-	1
TPH - Aliph >C06-C08*	1,00E-02	-	-	-	-	-	1
TPH - Aliph >C08-C10*	1,00E-02	-	-	-	-	-	1
TPH - Aliph >C10-C12*	1,00E-02	-	-	-	-	-	1
TPH - Aliph >C21-C34*	1,00E-02	-	-	-	-	-	1
TPH - Arom >C08-C10*	1,00E-02	-	-	-	-	-	1

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	CHEMICAL DATA FOR SELECTED COCs	Miscellaneous Chemical Data
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Constituent	Dermal		Water Dermal Permeability Data					Detection Limits				Half Life		
	Relative	Dermal	Lag time for	Critical	Relative	Water/Skin		Groundwater		Soil		(First-Order Decay)		
	Absorp.	Permeability	Dermal	Exposure	Contr of Derm	Derm Adsorp						(days)		
	Factor (unitless)	Coeff. (cm/hr)	Exposure (hr)	Time (hr)	Perm Coeff (unitless)	Factor (cm/event)	ref	(mg/L)	ref	(mg/kg)	ref	Saturated	Unsaturated	ref
Benzene*	0,5	0,021	0,26	0,63	0,013	6,5E-2	D	0,002	S	0,1	S	720	720	H
Ethylbenzene*	0,5	0,074	0,39	1,3	0,14	2,4E-1	D	0,002	S	0,005	S	228	228	H
Toluene*	0,5	0,045	0,32	0,77	0,054	1,4E-1	D	0,002	S	0,005	S	28	28	H
Xylene (mixed isomers)*	0,5	0,08	0,39	1,4	0,16	2,6E-1	D	0,005	S	0,1	S	360	360	H
TPH - Aliph >C06-C08*	0,5	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH - Aliph >C08-C10*	0,5	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH - Aliph >C10-C12*	0,5	-	-	-	-	-	-	-	-	1	-	-	-	-
TPH - Aliph >C21-C34*	0,05	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH - Arom >C08-C10*	0,5	-	-	-	-	-	-	-	-	-	-	-	-	-

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