

APPENDIX I

MATES IV

FINAL REPORT

List of Substances and Their Associated Risk Factors

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List of Substances and their Associated Risk Factors Including Updated OEHHA Methodology (final Column)

Compound	Class	CAS	Acute REL (µg/m3)	8-Hour REL (µg/m3)	Chronic REL (µg/m3)	Previous Unit risk (µg/m3) ⁻¹	Inhalation Slope Fator (mg/kg-day) ⁻¹	Calculated Updated Unit Risk (µg/m3) ⁻¹
Acetaldehyde	Carbonyls	75-07-0	470	300	140	2.7E-06	1.0E-02	6.77E-06
Formaldehyde	Carbonyls	50-00-0	55	9	9	6.0E-06	2.1E-02	1.42E-05
Methyl Ethyl Ketone(2-Butanone)	Carbonyls	78-93-3	13000					
Arsenic	Metal	7440-38-2	0.2	0.015	0.015	3.3E-03	1.2E+01	8.12E-03
Cadmium	Metal	7440-43-9			0.02	4.2E-03	1.5E+01	1.01E-02
Copper	Metal	7440-50-8	100					
Cr+6	Metal	18540-29-9			0.2	1.5E-01	5.1E+02	3.45E-01
Lead	Metal	7439-92-1				1.2E-05	4.2E-02	2.84E-05
Manganese	Metal	7439-96-5		0.17	0.09			
Nickel	Metal	7440-02-0	0.2	0.06	0.014	2.6E-04	9.1E-01	6.16E-04
Selenium	Metal	7782-49-2			20			
Benz(a)anthracene	PAH	56-55-3				1.1E-04	3.9E-01	2.64E-04
Benzo(a)pyrene	PAH	50-32-8				1.1E-03	3.9E+00	2.64E-03
Benzo(b)fluoranthene	PAH	205-99-2				1.1E-04	3.9E-01	2.64E-04
Benzo(k)fluoranthene	PAH	207-08-9				1.1E-04	3.9E-01	2.64E-04
Chrysene	PAH	218-01-9				1.1E-05	3.9E-02	2.64E-05
Dibenz(ah)anthracene	PAH	53-70-3				1.2E-03	4.1E+00	2.77E-03
Indeno(123-cd)pyrene	PAH	193-39-5				1.1E-04	3.9E-01	2.64E-04
Naphthalene	PAH	91-20-3			9	3.4E-05	1.2E-01	8.12E-05
Benzene	VOC	71-43-2	27	3	3	2.9E-05	1.0E-01	6.77E-05
Butadiene, 1,3-	VOC	106-99-0	660	9	2	1.7E-04	6.0E-01	4.06E-04
Carbon Tetrachloride	VOC	56-23-5	1900		40	4.2E-05	1.5E-01	1.01E-04
Chloroethene (Vinyl Chloride)	VOC	75-01-4	180000			7.8E-05	2.7E-01	1.83E-04
Chloroform	VOC	67-66-3	150		300	5.3E-06	1.9E-02	1.29E-05
Dibromoethane,1,2- (Ethylene Dibromide)	VOC	106-93-4			0.8	7.1E-05	2.5E-01	1.69E-04
Dichlorobenzene, p-	VOC	106-46-7			800	1.1E-05	4.0E-02	2.71E-05
Dichloroethane, 1,2- (Ethylene Dichloride)	VOC	107-06-2			400	2.1E-05	7.2E-02	4.87E-05
Ethylbenzene	VOC	100-41-4			2000	2.5E-06	8.7E-03	5.89E-06
Methyl tertiary-butyl ether (MTBE)	VOC	1634-04-4			8000	2.6E-07	1.8E-03	6.09E-07
Methylene Chloride (Dichloromethane)	VOC	75-09-2	14000		400	1.0E-06	3.5E-03	2.37E-06
Perchloroethylene (Tetrachloroethylene)	VOC	127-18-4	20000		35	5.9E-06	2.1E-02	1.42E-05
Styrene	VOC	100-42-5	21000		900			
Toluene	VOC	108-88-3	37000		300			
Trichloroethene	VOC	79-01-6			600	2.0E-06	7.0E-03	4.74E-06
Xylene, m-	VOC	108-38-3	22000		700			
Xylene, o-	VOC	95-47-6	22000		700			
Xylene, p-	VOC	106-42-3	22000		700			
Diesel Particulate Matter		n/a	5			3.0E-04	1.1E+00	7.44E-04

Values from the Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values available at <http://www.arb.ca.gov/toxics/healthval/healthval.htm>. The Calculated Revised Unit Risk Values were calculated using the updated methodology adopted by OEHHA in February, 2015 assuming an exposure value of 1 µg/m³, 90th percentile breathing rates for age groups up to 2 years and 80th percentile breathing rates for age groups above 2 years, fraction of time at home of 1 for ages up to 16 yrs and 0.73 for age above 16 yrs, and 30 year exposures.