Reference values (RV_{95})*

for metabolites of phthalates in urine of children and adults in Germany [2011]

Phthalate	Metabolite in urine	Children 3 to14 years of age, living in Germany, 2003 to 2006 [1]	Adults 20 to 29 years of age from Münster, 2006 and 2008 [2]
DnBP	**MnBP**	**300 µg/l**	**70 µg/l**
DiBP	**MiBP**	**300 µg/l**	**140 µg/l**
BBzP	**MBzP**	**75 µg/l**	**15 µg/l**
DEHP	**∑ 5OH-MEHP + 5oxoMEHP**	**280 µg/l**	**50 µg/l**
	5OH-MEHP	**160 µg/l**	**30 µg/l**
	5oxoMEHP	**120 µg/l**	**20 µg/l**
	5cx-MEPP	**200 µg/l**	**30 µg/l**
DiNP	**∑ 3 DiNP-Metabolite**	**140 µg/l**	**60 µg/l**
	OH-MiNP	**50 µg/l**	**20 µg/l**
	oxo-MiNP	**30 µg/l**	**15 µg/l**
	cx-MiNP	**60 µg/l**	**25 µg/l**

[xy] date of publication: http://www.umweltbundesamt.de/gesundheit-e/publikationen/substance_monograph_on_phthalates.pdf

* when applying RV_{95} the analytical uncertainty must be taken into account
[1] Source: German Environmental Survey on Children 2003-2006 (GerES IV)
[2] Source: Environmental specimen bank for human tissues

DnBP (di-n-butyl phthalate): MnBP (mono-n-butyl phthalate)
DiBP (di-iso-butyl phthalate): MiBP (mono-iso-butyl phthalate)
BBzP (butylbenzyl phthalate): MBzP (mono-benzyl phthalate)
DEHP (di(2ethylhexyl)phthalate):
5OH-MEHP (5OH-mono(2-ethylhexyl)phthalate);
5oxoMEHP (5oxo-mono(2-ethylhexyl)phthalate),
5cx-MEPP (5carboxy-mono(2-ethylhexyl)phthalate)
DiNP (di-iso-nonyl phthalates):
OH-MiNP (7OH-mono-methyloctyl phthalate);
oxo-MiNP (7oxo-mono-methyloctyl phthalate);
cx-MiNP (7carboxy-mono-methylheptyl phthalate)

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