

DRUG CUT-OFF LIMITS FOR MECONIUM AND UMBILICAL CORD

Drug Class, Drug, Drug Metabolite(s)*	Common Trade and Street Names, Other Sources [Notes]	LLOQ †	
		MEC (ng/g)	CORD (ng/g)
Stimulants			
Amphetamine	Adderall, Evekeo, Procentra, Zenzidi, Dexedrine, Vyvanse, speed [could be methamphetamine metabolite; if so, typically < 30% of parent]	20	8
Methamphetamine	Desoxyn, methedrine, Vicks inhaler [D and L isomers not resolved; low concentrations are expected if the source is Vicks] or a metabolite of selegiline (Atapryl, Carbex, Deprenyl, Eldepryl)	20	8
Methylenedioxyamphetamine (MDMA)	E, XTC, ecstasy, molly	20	8
Methylenedioxyethylamphetamine (MDEA)	Eve, MDE	20	NA
Methylenedioxyamphetamine (MDA)	Sally, sass, MDMA or MDEA metabolite	20	NA
Phentermine	Adipex, Qsymia, Suprenza	NA	8
Cocaine	Coke, crack [parent drug rarely observed due to short half-life]	20	8
<i>Benzoyllecgonine</i>	Cocaine metabolite	20	8
<i>m-hydroxy benzoyllecgonine</i> [^]	Cocaine metabolite [often the only cocaine metabolite in meconium]	20	8
<i>Cocaethylene</i>	Cocaine metabolite [formed when cocaine is used with alcohol]	20	8
Opioids			
Buprenorphine	Butrans, Buprenex, Bunavail, Suboxone, Zubsolv	20	2
<i>Norbuprenorphine</i>	Buprenorphine metabolite	20	NA
<i>Buprenorphine-glucuronide</i>	Buprenorphine metabolite	NA	8
Codeine	Included in many preparations; morphine metabolite [may be a contaminant if < 2% of morphine]	20	6
Dihydrocodeine	Drocode, DHC Plus, Synalgos-DC, hydrocodone metabolite	NA	4
Fentanyl	Abstral, Actiq, Duragesic, Fentora, Subsys, Ionsys, Lazanda	NA	1
Heroin	Diacetylmorphine, dope, smack, dust [parent drug not detected]	NA	NA
<i>6-acetylmorphine</i> [^]	Heroin metabolite; 6-AM, 6-monoacetylmorphine [rarely observed]	20	4
Hydrocodone	Included in many preparations [with acetaminophen: Lortab, Lorcet, Co-Gesic, Vicodin; with ibuprofen: Ibudone]; codeine metabolite; [may be a contaminant if < 2% of oxycodone]	20	6

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Opioids continued			
Hydromorphone	Dilaudid; morphine and hydrocodone metabolite	20	4
Morphine	Included in many preparations: Astromorph, Avinza, DepoDur, Duramorph, Kadian, MS Contin [with naltrexone: Embeda]; poppy seeds [low concentrations expected]; heroin metabolite	20	4
Oxycodone	OxyContin [with acetaminophen: Endocet, Percocet, Roxicet; with aspirin: Endodan, Percodan, Roxiprin; with ibuprofen: Combunox]	20	4
Oxymorphone	Numorphan, Opana, oxycodone metabolite	20	4
Meperidine	Demerol, Mepergan	NA	2
<i>Normeperidine</i> [^]	Meperidine metabolite	NA	NA
Methadone	Dolophine, Methadose	10	10
<i>EDDP</i>	Methadone metabolite; 2-ethylidene-1,5-dimethyl-2,2-diphenylpyrrolidine	10	10
Naloxone	Evzio or in combination with buprenorphine or pentazocine	NA	8
Naltrexone	Vivitrol, Revia, or in combination with bupropion or morphine	NA	8
Propoxyphene	Darvon, Wygesic [with acetaminophen: Darvocet, Digesic]	NA	10
<i>Norpropoxyphene</i> [^]	Propoxyphene metabolite	NA	NA
Tapentadol	Nucynta	NA	2
Tramadol	Ultram, Ultracet, ConZip	NA	2
<i>N-desmethyltramadol</i>	Tramadol metabolite	NA	2
<i>O-desmethyltramadol</i>	Tramadol metabolite	NA	2

Sedative-Hypnotics: Barbiturates

Butalbital	Sandoptal or combination products like Fioricet, Ascomp, Esgic	50	75
Phenobarbital	Luminal or combination drug products like Donnatal	50	75

Sedative-Hypnotics: Benzodiazepines

Alprazolam	Xanax	20	5
<i>Alpha-hydroxyalprazolam</i>	Alprazolam metabolite	20	5
Clonazepam	Clonopin, Klonopin	20	5
<i>7-amino clonazepam</i>	Clonazepam metabolite	20	5
Diazepam	Valium, Diastat, Valrelease	20	5

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Sedative-Hypnotics: Benzodiazepines continued

Flurazepam	Dalmane [parent drug not detected]	NA	NA
<i>Desalkylflurazepam</i>	Flurazepam metabolite	20	NA
<i>2-hydroxyethylflurazepam</i>	Flurazepam metabolite	20	NA
Lorazepam	Ativan	20	5
Midazolam	Versed	20	5
<i>Alpha-hydroxymidazolam</i>	Midazolam metabolite	NA	5
Nordiazepam	Metabolite of several drugs: chlorodiazepoxide (Librium), clorazepate (Tranxene), diazepam, halezepam (Paxipam), prazepam (Centrax)	20	5
Oxazepam	Serax; nordiazepam and temazepam metabolite	20	5
Temazepam	Normison, Restoril; diazepam metabolite	20	5
Triazolam	Halcion [parent drug not detected]	NA	NA
<i>Alpha-hydroxytriazolam</i>	Triazolam metabolite	20	NA
Zolpidem	Ambien, Edluar, Intermezzo, Zolpimist	NA	10

Hallucinogens

Phencyclidine	PCP, Sernyl, Sernylan, angel dust	10	4
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Cannabinoids

<i>11-nor-9-Carboxy-Delta-9-tetrahydrocannabinol</i>	Marinol, Dronabinol, marijuana, weed, cannabis, ganja, hashish, THC, cannabinoid metabolite	5	1
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* Metabolite: an end product that remains (and is eliminated) after a drug is modified (metabolized) by the body; italics used above to identify.

^ Qualitative only (quantitative result not reported)
MEC = meconium **CORD** = umbilical cord

† Lowest concentration reported, cutoff
NA = not available

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