

Materials List for:

Color Spot Test As a Presumptive Tool for the Rapid Detection of Synthetic Cathinones

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Materials

Name	Company	Catalog Number	Comments
Chemicals			
Reagents and solvents			
neocuproine hemihydrate	Sigma-Aldrich	72090	≥99.0%. Acute toxicity
copper(II) nitrate trihydrate	Sigma Aldrich	61197	98.0%-103%
sodium acetate	Ajax Finechem	AJA680	anhydrous
hydrochloric acid	RCI Labscan	RP 1106	36%. Corrosive
Name			
Company			
Catalog Number			
Comments			
Powders			
ascorbic acid	AJAX Finechem UNIVAR	104	L
benzocaine	Sigma-Aldrich	E1501	
benzoic acid	Sigma-Aldrich	242381	≥99.5%
boric acid	Silform Chemicals	R27410	
caffeine	Sigma-Aldrich	C0750	
cellulose	Sigma-Aldrich	435236	microcrystalline
calcium chloride	AJAX Finechem UNILAB	960	
citric acid	AJAX Finechem UNIVAR	160	
codeine phosphate	Glaxo	-	Acute toxicity
cysteine	Sigma-Aldrich	168149	L
dimethylsulfone	Sigma-Aldrich	M81705	98%
ephedrine HCl	Sigma-Aldrich	285749	99%. Acute toxicity
glucose	AJAX Finechem UNIVAR	783	D, anhydrous
glutathione	AJAX Finechem UNILAB	234	
glycine	AJAX Finechem UNIVAR	1083	
lactose	Sigma	L254	D, monohydrate
levamisole HCl	Sigma-Aldrich	PHR1798	Acute toxicity
magnesium sulphate	Scharlau	MA0080	anhydrous, extra pure
maltose	AJAX Finechem LABCHEM	1126	Bacteriological
mannitol	AJAX Finechem UNIVAR	310	
O-acetylsalicylic Acid	Sigma-Aldrich	A5376	
phenethylamine	Sigma-Aldrich	241008	
phenolphthalein	AJAX Finechem LABCHEM	368	Acute toxicity
potassium carbonate	Chem-Supply	PA021	AR, anhydrous
sodium carbonate	Chem-Supply	SA099	AR, anhydrous

sodium chloride	Rowe Scientific	CC10363	
starch	AJAX Finechem UNILAB	1254	soluble
stearic acid	AJAX Finechem UNILAB	1255	
sucrose	AJAX Finechem UNIVAR	530	
tartaric acid	AJAX Finechem UNIVAR	537	(+)
Name	Company	Catalog Number	Comments
Household products			
artificial sweetener	ALDI Be Light	n/a	Contains aspartame
brown sugar	CSR	n/a	
icing sugar	CSR	n/a	
caster sugar	CSR	n/a	
paracetamol tablet	Panadol	n/a	
protein powder	Aussie Bodies ProteinFX	n/a	
self-raising	Woolworths Australia Homebrand	n/a	
plain flour	Woolworths Australia Homebrand	n/a	
Name	Company	Catalog Number	Comments
Reference compounds			controlled or illegal substances
Cathinone-type substances			
1-(4-methoxyphenyl)-2-(1-pyrrolidinyl)-1-propanone HCl (MOPPP)	Australian Government National Measurement Institute (NMI)	D1024	Acute toxicity potential
1-phenyl-2-methylamino-pentan-1-one HCl	Lipomed	PTD-1507-HC	Acute toxicity potential
2,3-dimethylmethcathinone HCl (2,3-DMMC)	Chiron Chemicals	10970.12	Acute toxicity potential
2,4,5-trimethylmethcathinone HCl (2,4,5-TMMC)	Chiron Chemicals	10927.13	Acute toxicity potential
2,4-dimethylmethcathinone HCl (2,4-DMMC)	Chiron Chemicals	10971.12	Acute toxicity potential
2-benzylamino-1-(3,4-methylenedioxyphenyl)-1-butanone HCl (BMDB)	Chiron Chemicals	10925.18	Acute toxicity potential
2-fluoromethcathinone HCl (2-FMC)	LGC Standards	LGCFOR 1275.64	Acute toxicity potential
2-methylmethcathinone HCl (2-MMC)	LGC Standards	LGCFOR 1387.02	Acute toxicity potential
3,4-methylenedioxy- α -pyrrolidinobutophenone (MDPBP) HCl	Australian Government National Measurement Institute (NMI)	D973	Acute toxicity potential
3,4-dimethylmethcathinone HCl (DMMC)	Australian Government National Measurement Institute (NMI)	D962	Acute toxicity potential
3,4-methylenedioxy-methcathinone HCl (MDMC)	Australian Government National Measurement Institute (NMI)	D942	Acute toxicity potential
3,4-methylenedioxy-N,N-dimethylcathinone HCl	Australian Government National Measurement Institute (NMI)	D977	Acute toxicity potential
3,4-methylenedioxy-pyvalerone HCl (MDPV)	Australian Government National Measurement Institute (NMI)	D951b	Acute toxicity potential
3-bromomethcathinone HCl (3-BMC)	Australian Government National Measurement Institute (NMI)	D1035	Acute toxicity potential
3-fluoromethcathinone HCl (3-FMC)	Australian Government National Measurement Institute (NMI)	D947b	Acute toxicity potential

3-methylmethcathinone HCl (3-MMC)	LGC Standards	LGCFOR 1387.03	Acute toxicity potential
4-bromomethcathinone HCl (4-BMC)	LGC Standards	LGCFOR 1387.11	Acute toxicity potential
4-fluoromethcathinone HCl	Australian Government National Measurement Institute (NMI)	D969	Acute toxicity potential
4-methoxymethcathinone HCl	Australian Government National Measurement Institute (NMI)	D952	Acute toxicity potential
4-methylethylcathinone HCl	Australian Government National Measurement Institute (NMI)	D968	Acute toxicity potential
4-methylmethcathinone HCl (4-MMC)	Australian Government National Measurement Institute (NMI)	D937b	Acute toxicity potential
4-methyl-N-benzylcathinone HCl (4-MBC)	Australian Government National Measurement Institute (NMI)	D1026	Acute toxicity potential
4-methyl-pyrrolidinopropiophenone HCl	Australian Government National Measurement Institute (NMI)	D964	Acute toxicity potential
4-methyl- α -pyrrolidinobutiophenone HCl	Australian Government National Measurement Institute (NMI)	D974	Acute toxicity potential
cathinone HCl (bk-amphetamine)	Australian Government National Measurement Institute (NMI)	D929	Acute toxicity potential
dibutylone HCl (bk-DMBDB)	Australian Government National Measurement Institute (NMI)	D1027	Acute toxicity potential
iso-ethcathinone HCl	Chiron Chemicals	10922.11	Acute toxicity potential
methcathinone HCl	Australian Government National Measurement Institute (NMI)	D724	Acute toxicity potential
methylenedioxy- α -pyrrolidinopropiophenone HCl	Australian Government National Measurement Institute (NMI)	D960	Acute toxicity potential
N,N-diethylcathinone HCl	Australian Government National Measurement Institute (NMI)	D957	Acute toxicity potential
N,N-dimethylcathinone HCl	Australian Government National Measurement Institute (NMI)	D958	Acute toxicity potential
naphthylpyrovalerone HCl (naphyrone)	Australian Government National Measurement Institute (NMI)	D981	Acute toxicity potential
N-ethyl-3,4-methylenedioxycathinone HCl	Australian Government National Measurement Institute (NMI)	D959	Acute toxicity potential
N-ethylbuphedrone HCl	Australian Government National Measurement Institute (NMI)	D1013	Acute toxicity potential
N-ethylcathinone HCl	Australian Government National Measurement Institute (NMI)	D938b	Acute toxicity potential
pentylone HCl	Australian Government National Measurement Institute (NMI)	D992	Acute toxicity potential
pyrovalerone HCl	Australian Government National Measurement Institute (NMI)	D985	Acute toxicity potential
α -dimethylaminobutyrophenone HCl	Australian Government National Measurement Institute (NMI)	D1011	Acute toxicity potential
α -dimethylaminopentiophenone HCl	Australian Government National Measurement Institute (NMI)	D1006	Acute toxicity potential
α -ethylaminopentiophenone HCl	Australian Government National Measurement Institute (NMI)	D1005	Acute toxicity potential
α -pyrrolidinobutiophenone HCl (α -PBP)	Australian Government National Measurement Institute (NMI)	D1012	Acute toxicity potential
α -pyrrolidinopentiophenone HCl	Australian Government National Measurement Institute (NMI)	D986b	Acute toxicity potential
α -pyrrolidinopropiophenone HCl	Australian Government National Measurement Institute (NMI)	D956	Acute toxicity potential

β -keto-N-methyl-3,4-benzodioxolylbutanamine HCl (bk-MBDB)	Australian Government National Measurement Institute (NMI)	D948	Acute toxicity potential
Name	Company	Catalog Number	Comments
Other substances			
(-)-ephedrine HCl	Australian Government National Measurement Institute (NMI)	M924	Acute toxicity potential
(-)-methylephedrine HCl	Australian Government National Measurement Institute (NMI)	M243	Acute toxicity potential
(+)-cathine HCl	Australian Government National Measurement Institute (NMI)	M297	Acute toxicity potential
(+/-)- 3,4-methylenedioxyamphetamine HCl (MDA)	Australian Government National Measurement Institute (NMI)	D842	Acute toxicity potential
(+/-)- N-methyl-3,4-methylenedioxyamphetamine HCl (MDMA)	Australian Government National Measurement Institute (NMI)	D792c	Acute toxicity potential
(+/-)-methamphetamine HCl	Australian Government National Measurement Institute (NMI)	D816e	Acute toxicity potential
(+/-)-N-ethyl-3,4-methylenedioxyamphetamine HCl (MDEA)	Australian Government National Measurement Institute (NMI)	D739c	Acute toxicity potential
(+/-)-N-methyl-1-(3,4-methylenedioxyphenyl)-2-butylamine HCl	Australian Government National Measurement Institute (NMI)	D450a	Acute toxicity potential
(+/-)-phenylpropanolamine HCl	Australian Government National Measurement Institute (NMI)	M296	Acute toxicity potential
(2S*,3R*)-2-methyl-3-[3,4-(methylenedioxy)phenyl]glycidic acid methyl ester	Australian Government National Measurement Institute (NMI)	D903	Acute toxicity potential
1-(3-chlorophenyl)piperazine HCl (mCPP)	Australian Government National Measurement Institute (NMI)	D907	Acute toxicity potential
1-[3-(trifluoromethyl)phenyl]piperazine HCl (TFMPP)	Australian Government National Measurement Institute (NMI)	D906	Acute toxicity potential
1-benzylpiperazine HCl (BZP)	Australian Government National Measurement Institute (NMI)	D905	Acute toxicity potential
2,5-dimethoxy-4-iodophenylethylamine HCl	Australian Government National Measurement Institute (NMI)	D922	Acute toxicity potential
2,5-dimethoxy-4-methylamphetamine HCl (DOM)	Australian Government National Measurement Institute (NMI)	D470b	Acute toxicity potential
2,5-dimethoxy-4-propylthiophenylethylamine HCl	Australian Government National Measurement Institute (NMI)	D919	Acute toxicity potential
2,5-dimethoxyamphetamine HCl	Australian Government National Measurement Institute (NMI)	D749	Acute toxicity potential
2-bromo-4-methylpropiophenone	Synthesised in-house	n/a	Acute toxicity potential
2-fluoroamphetamine HCl	Australian Government National Measurement Institute (NMI)	D946	Acute toxicity potential
2-fluoromethamphetamine HCl	Australian Government National Measurement Institute (NMI)	D933	Acute toxicity potential
3,4-dimethoxyamphetamine HCl	Australian Government National Measurement Institute (NMI)	D453b	Acute toxicity potential
3,4-methylenedioxyphenyl-2-propanone (MDP2P)	Australian Government National Measurement Institute (NMI)	D810b	Acute toxicity potential
4-bromo-2,5-dimethoxyamphetamine HCl	Australian Government National Measurement Institute (NMI)	D396b	Acute toxicity potential

4-bromo-2,5-dimethoxyphenethylamine HCl	Australian Government National Measurement Institute (NMI)	D758b	Acute toxicity potential
4-fluoroamphetamine HCl	Australian Government National Measurement Institute (NMI)	D943b	Acute toxicity potential
4-fluorococaine HCl	Australian Government National Measurement Institute (NMI)	D854b	Acute toxicity potential
4-fluoromethamphetamine HCl	Australian Government National Measurement Institute (NMI)	D934	Acute toxicity potential
4-hydroxyamphetamine HCl	Australian Government National Measurement Institute (NMI)	D824b	Acute toxicity potential
4-methoxyamphetamine HCl (PMA)	Australian Government National Measurement Institute (NMI)	D756	Acute toxicity potential
4-methoxymethamphetamine HCl (PMMA)	Australian Government National Measurement Institute (NMI)	D908b	Acute toxicity potential
4-methylmethamphetamine HCl	Australian Government National Measurement Institute (NMI)	D963	Acute toxicity potential
4-methylpropiofenone	Sigma-Aldrich	517925	Acute toxicity potential
5-methoxy-N,N-diallyltryptamine	Australian Government National Measurement Institute (NMI)	D954	Acute toxicity potential
amphetamine sulphate	Australian Government National Measurement Institute (NMI)	D420d	Acute toxicity potential
cocaine HCl	Australian Government National Measurement Institute (NMI)	D747b	Acute toxicity potential
dimethamphetamine (DMA)	Australian Government National Measurement Institute (NMI)	D693d	Acute toxicity potential
gamma-hydroxy butyrate	Australian Government National Measurement Institute (NMI)	D812b	Acute toxicity potential
heroin HCl	LGC Standards	LGCFOR 0037.20	Acute toxicity potential
ketamine HCl	Australian Government National Measurement Institute (NMI)	D686b	Acute toxicity potential
methoxetamine HCl	Australian Government National Measurement Institute (NMI)	D989	Acute toxicity potential
methylamine HCl	Sigma-Aldrich	M0505	Acute toxicity potential
phencyclidine HCl	Australian Government National Measurement Institute (NMI)	D748	Acute toxicity potential
phentermine HCl	Australian Government National Measurement Institute (NMI)	D781	Acute toxicity potential
triethylamine	Sigma-Aldrich	T0886	Acute toxicity, corrosive, flammable
Name	Company	Catalog Number	Comments
Equipment			
12-well porcelain spot plates	HomeScienceTools	CE-SPOTP12	
96-well microplates	Greiner Bio-One	650201	
Hot plate	Industrial Equipment and Control Pty Ltd.	CH1920 (Scientific)	
100 mL glass volumetric flasks	Duran	24 678 25 54	
Soda lime glass Pasteur pipettes	Marienfeld-Superior	3233050	230 mm length