DrugWatch Information Sheet
MPA

Version: 1.0
Original version: 18/03/2014

Drug overview: MPA (Methiopropamine) is a new psychoactive substance (NPS, or legal high). It is a stimulant drug, sold on its own or within a wide range of branded products.

Chemical name(s): 2, 13 N-methyl-1-(thiophen-2-yl)propan-2-amine. Systematic (IUPAC) name: 1-(thiophen-2-yl)-2-methylaminopropane.

Classification: Stimulant [2, 13]

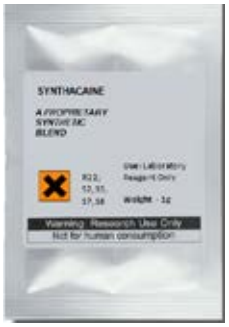
Background: MPA belong to the α-Thienylaminoalkane group of drugs and was originally discovered in 1942 4. It is a 2-thienyl analog of methamphetamine [2, 13], however its effects are very different to those of methamphetamine. MPA began to be seen in the UK towards the end of 2010 [5, 6, 7].

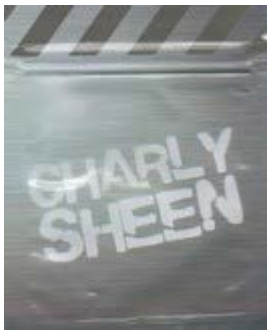
Appearance: MPA is an off-white powder, slightly clumpy in appearance. It has a recognizable smell that has been described by some as having a "slight odour of aniseed". One vendor states the smell "has a subtle chemical aroma with a hint of plastic nuances". MPA has a bitter taste.

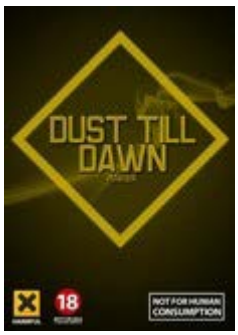
Typical effects and side effects: [6,7] MPA is described by many users as a "functional stimulant". It is compared to drugs such as caffeine or methylphenidate (Ritalin), and users state that they find it helpful when studying or working late. Another positive factor mentioned by users is that as MPA induces very little euphoria, it is often harder to tell when someone has taken the drug as there are less "tell-tale signs" of stimulant use.

Combinations: MPA is often sold as a combination drug and is one of the ingredients of a wide range of branded products, among them: Ammo, Barry White, Blue Genie, Bomb, Bullet, Charlie Sheen, China White, Dragon, Dusk Till Dawn, Flake Red Eye, Fury, Fury Xtreme, Gogaine, Green Beans, Pink Panthers, Poke, Posh, Purple Bombs, RPM1P, Synthacaine and WhiteMM. The contents of these branded products can fluctuate and it is often unclear which compounds they contain. For example Pink Panthers (see image over) have been marketed as containing a combination of MPA and MDAI, however some gave contained just MPA, others are marketed as pure MDAI, and others still a blend of MDAI, 5-iAi and 2Ai [14].

Typical combination ingredients include empathogenic drugs such as MDAI, or stimulant drugs such as ethylphenidate, 2-Ai, 5-iAi or caffeine. The reasoning behind MPA being sold in combination with other compounds is widely discussed on user forums. For example, there are many user posts describing a synergistic relationship between MPA and MDAI, in which combining these two drugs in a certain ratio creates an effect stronger than the sum of its parts [8]. While MPA on its own is usually sold in powder form, the branded products containing MPA are available in both powder or pellet forms.







Cost: MPA 1g approx £14, 10g approx £80, 100g approx £550.
Branded products containing MPA approximately £15 per gram (online) or £20-£30 per gram (in retail outlets).

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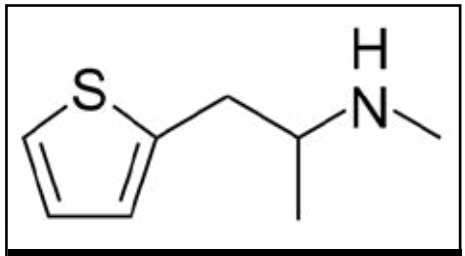
Route of administration: [6,7] MPA is typically insufflated (sniffed), or vaporised (heated and inhaled). Many users report underwhelming results from oral use and there is limited data on either this or intravenous (IV) use. Rectal administration (plugging) is recommended by several users [9,10].



MPA chemical structure[2c]

Dosages, onset and duration: [6, 7, 9, 10, 11, 12] Due to the scarcity of either published research or user reports about MPA these dosages are rough guidelines only. Effects and times of the drug vary; reported duration times for example range from 30 mins to 4 hours depending on user, dose and route of administration. *Please note that the amounts and times below will not apply to everyone who takes the drug.*

Insufflated (sniffed)			
Dosage		Duration	
Threshold	5 mg (approx)	Total duration	1-4 hours
Light	5-20 mg	Onset	5-10 mins
Common	30-50 mg	Coming up	5-10 mins
Strong	60+ mg	Plateau	30-120 mins
		Coming down	60-120 mins

Vaporised (heated and inhaled)			
Dosage		Duration	
Threshold	5 mg (approx)	Total duration	30-60 mins
Light	5-15 mg	Onset	<1 min
Common	15-30 mg	Coming up	1-10 mins
Strong	20-40+ mg	Plateau	60-120 mins
		Coming down	60-120 mins

Oral (- denotes insufficient data)			
Dosage		Duration	
Threshold	10 mg	Total duration	-
Light	20-30 mg	Onset	-
Common	40-50 mg	Coming up	-
Strong	50+ mg	Plateau	-
		Coming down	60-120 mins

Rectal (plugged) (- denotes insufficient data)			
Dosage		Duration	
Threshold	10 mg	Total duration	1-4 hours
Light	20-40 mg	Onset	20-30 mins
Common	40-60 mg	Coming up	-
Strong	60+ mg	Plateau	-
		Coming down	-

After effects/comedown: Users report the comedown from MPA to be minimal or significantly less pronounced than for other stimulant drugs, perhaps due to its lack of activity on the brain's reward mechanism. Effects noted by users include tiredness, low mood, headaches and irritability.

Patterns of use: Some users claim that there is little urge to re-dose, however a number of other users report continued use during episodes of taking MPA. Re-dosing appears more prevalent among users who inject intravenously, insufflate (snort) or vaporise, and this increases the likelihood of negative effects such as anxiety, irritability, jitteriness and insomnia. There are user reports of compulsive 'binge' sessions lasting for several days [16] ; as with other stimulant drugs there is a risk of developing psychological dependency.

Long term effects/known harms: MPA is a relatively new compound and as such there is little information available on the harms associated with long-term use. Extended periods of use of any stimulant drug are likely to result in symptoms such as tiredness, weight loss and an increased risk of mental health issues such as paranoia, mood swings and low mood.

Legal Status: MPA is currently not controlled under the Misuse of Drugs Act.

Harm reduction: All drugs have the potential to cause harms and some of these can be very serious and rarely, life threatening. The lack of knowledge about the toxicity and effects of new psychoactive substances may mean harm-reduction options are not always clear. New psychoactive substances have not been tested in clinical trials and the short-, medium-, and long-term effects are not known. A lack of consistency in the active content of individual products over time may put users at risk of misusing the substance, or of overdosing, and the combination of substances within individual products creates a potential risk of problematic drug interactions [15].

Overdose & Emergencies: See DrugWatch Information Sheet for further information.

If you choose to use MPA taking some simple steps can reduce some of the risks and help you stay safer:

- Control quantities taken in one session
- Try not to use alone and tell friends what you are taking
- Avoid if you have any history of mental health issues
- Carry condoms/dams and practice safer sex
- Seek help from medical support quickly if you experience any negative side effects
- Find a calm environment and slow your breathing down if you feel your heart beating too quickly, or feel about to panic
- Make sure you have water on-hand to avoid dehydration; take small, regular sips to replace fluid lost by sweating
- Resist any urges to re-dose for long periods and ensure that you take adequate breaks between use to allow your body to recharge.

Serotonin toxicity: When MPA is combined with certain other drugs (for example aminoindanes such as MDAI or 5-iAi) the user is placed at risk of serotonin toxicity. This can be fatal if not recognised and dealt with both quickly and effectively. Symptoms include hyperthermia (overheating), hyperreflexia (over responsive reflexes), clonus (involuntary muscular contractions and relaxations), hypertension (high blood pressure), dysphoria (mental distress) and mydriasis (dilated pupils). Due to muscle tension being triggered by the condition, there is a potential of developing rhabdomyolysis (muscle tissue breakdown) which can cause severe kidney damage and can be fatal. It is therefore dangerous to restrain individuals, as increased agitation will lead to increased muscle tension trying to break free from restraints. Treatment can include cooled IV fluids, benzodiazepines to control agitation, rapid cooling via ice packs, oral cyproheptadine (anti-histamine with anti-serotonergenic properties) and anti-psychotic medication in severe cases [18]. Perceptual effects of serotonin toxicity can last up to 24 hours; there is also the possibility of 'rebound effects' more than 12 hours after initial symptoms.

Where to get help: We would advise anyone experiencing issues from GBL or other substances to seek medical support via their GP or the NHS. There are a wide range of local drug services throughout the UK, to find out what is available in your area please use the links below:

England: Find Support | Frank
Scotland: Scottish Drug Services
Wales: Dan 24/7
Northern Ireland: Public Health Agency

This information has been collated from a variety of sources including expert users and information from users via relevant websites and drug forums. This information sheet is to be used as a rough guide only; there is little scientific or medical evidence available on the substance and much of the information has been obtained from service users' reports.

Produced in association with **UK DrugWatch**. UK DrugWatch is an informal online professional information network established by a group of professionals working in the UK drugs sector. The aim of the group is to raise/establish standards for drug information, alerts and warnings. It is currently an unfunded, bottom-up initiative that works in the spirit of mutual co-operation. Details of current members can be found online: www.drugscope.org.uk/partnersandprojects/DrugWatch.htm.

References:

1. MPA molecular image downloaded from: http://www.chemicalize.org/structure/#!mol=methiopropamine&source=fp [accessed 16/01/2014]. Image licensed under a Creative Commons License.
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Drug packet images downloaded from online vendor sites: direct links not provided in order to prevent advertisement.