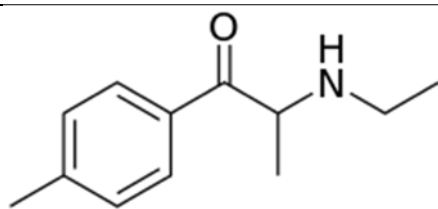


	Substance briefing: 4-MEC
	This technical folder provides information on 4-MEC . The information provided is based on a number of existing data sources and work undertaken as part of the I-TREND project. Research informing the folder includes an analysis of user discussions on popular (insert country name) drug forums, an analysis of marketing on popular (insert country name: e.g. English speaking) web shops selling the substance, and scientific laboratory analysis of the compound through test purchasing of the substance from (insert country name) web shops.
1	Substance name(s)
1.1	Chemical name: 4-Methylethcathinone
1.2	Popular/street/slangname(s): Users on Czech forums do not have a slang/street/ popular name for this substance
1.3	Other name(s): 2-Ethylamino-1-(4-methylphenyl)propan-1-one, 4-methyl-N-ethylcathinone
1.4	Branded products in which the substance was found following analysis:
1.5	Branded products advertised as containing the substance on web shops: Czech web shop analysis found no web shop advertised branded products as containing <i>4-MEC</i> substance.
1.6	Branded products discussed as containing the substance on drug forums: No branded products were discussed as containing 4-MEC, one user compared effects to Cherry Cocolino product.
2.	Classification and effect

2.1	<p>Classification and effect confirmed through substance analysis</p> <ul style="list-style-type: none"> • Cathinones
2.2	<p>Classification and effect referred to by users of drug forums</p> <ul style="list-style-type: none"> • Cathinones
2.3	<p>Classification and effect used in the marketing of the product on web shops</p> <p>The 4-MEC was classified as a research chemical according to an analysis of Czech web shops. The web shops' analysis found two web shops selling 4-MEC under a 'stimulant' category. In addition one of these web shops classified 4-MEC more specifically as a substance of cathinone class</p> <p>Direct Information about effects was not provided by any shop.</p> <p>One web shop used indirect information about effects and described 4-MEC as a similar to 'methamphetamine and 3,4-methylenedioxymethamphetamine'</p> <p>NB: See reference list for sources related to classification (e.g. pharmacological studies, case studies, etc...)</p>
3	<p>Potential risks associated with use of the substance</p>
3.1	<p>General risks associated with the substance:</p> <p><i>no precise information; because close to MDPV - it has probable risk of addiction (boostling is rather frequent), risky combination with IMAO</i></p> <p><i>Unpleasant psychological effects:</i></p> <ul style="list-style-type: none"> • <i>Short-term memory deterioration</i> • <i>Hallucinations at higher doses</i> • <i>Strong craving for continuous use of the drug and sustain the primal level of euphori, urge for boosting of the effects</i> <p><i>Unpleasant physical effects:</i></p> <ul style="list-style-type: none"> • <i>Unpleasant physical effects like chills, palpitations, racing heart feeling, clenching of jaw muscles, teeth chattering, dizziness, head spinning, nystagmus, muscle convulsions, sweating, goose-bumps, redness in the face</i> • <i>irritation, pain and swelling of nose and neck after snorting, inflammation of paranasal cavities, nose-bleeds and burning sensation after intravenous use</i> • <i>With higher dose negative effects are more frequent and</i>

	<p><i>intensive</i></p> <p><i>Assumed risks due to similarity to other substances:</i></p> <ul style="list-style-type: none"> • <i>Similarity to MDPV and cocaine can be assumed, therefore effects can involve: stimulation, faster breathing, tachycardia, suppression of appetite, dehydration, after effect (fatigue), paranoia.</i> • <i>Toxicity and pharmacology data are not available, most of available information is assumed from similarity to MDPV</i> • <i>Combination with monoaminooxidase inhibitors could be risky/dangerous (MAOI)</i> 								
3.2	<p>Users point of view on the substance and risk perception:</p> <p>4-MEC was rarely discussed on Czech forums, therefore risk perception of users could not be assumed from this source.</p>								
4	Legal status and identification of the substance								
4.1	Legal status/acts/laws in Czech republic: 4-MEC is controlled								
4.2	<p>List of first identification and reporting to the EMCDDA by a national Reitox Focal Points</p> <table border="1"> <thead> <tr> <th>Country</th> <th>Dates</th> </tr> </thead> <tbody> <tr> <td>Czech republic in 2010</td> <td>Collected sample of 1 g</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>	Country	Dates	Czech republic in 2010	Collected sample of 1 g				
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Czech republic in 2010	Collected sample of 1 g								
5	Photographs of the substance								
5.1	<p>Photograph of the substance purchased for laboratory analysis: not received</p> <p>Not recieved</p>								
5.2	Photo/Printscreen of the product from the webshop:								
6	Chemistry								
6.1	Chemical Abstracts Service (CAS) registry number: 1225617-18-4								
6.2	<p>Chemical information:</p> <p>The N-ethyl homologue of 4-methylmethcathinone (mephedrone). It is a synthetic ring-substituted cathinone which is expected to have psychoactivity.</p>								
6.2	Structure (picture of structural formula)								



6.3	Molecular mass 191,27 g/mol																														
6.4	Structural comparison with a related substance N-methyl homolog/derivate of 4-methylmethcathinon (mephedron); close to MDPV																														
6.5	(Insert pictures of developed formula of this original substance)																														
7	Analytical composition: results of substance analysis carried out from the sample purchased online.																														
7.1	<p>Details of laboratory analysis technique used:</p> <p>Mean (%) = (sd.= .) (N sample analysed)</p> <table border="1"> <thead> <tr> <th>Webshop</th> <th>Country (IP address)</th> <th>Country (package origin)</th> <th>Form</th> <th>Substance named on package/web shop</th> <th>Confirmed substances</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> <td>benzofury</td> <td>6 APB</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td></td> <td>Mephedrone</td> <td>Mephedrone</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Webshop	Country (IP address)	Country (package origin)	Form	Substance named on package/web shop	Confirmed substances	1				benzofury	6 APB	1				Mephedrone	Mephedrone	2						2					
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7.3	<p>Substance marketing details</p> <table border="1"> <thead> <tr> <th></th> <th>Euros</th> </tr> </thead> <tbody> <tr> <td>Powder</td> <td></td> </tr> <tr> <td>minimum price per gram</td> <td>€20</td> </tr> <tr> <td>maximum price per gram</td> <td>€20</td> </tr> <tr> <td>mode price per gram</td> <td>€20</td> </tr> <tr> <td>mean price per gram</td> <td>€20</td> </tr> </tbody> </table>		Euros	Powder		minimum price per gram	€20	maximum price per gram	€20	mode price per gram	€20	mean price per gram	€20																		
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8	Price and marketing strategies on (insert country name) web shops selling the substance		
8.1			
8.2	<p>Description of availability and marketing strategies on (insert country name) web shops selling the substance:</p> <p>The 4-MEC was available to purchase (28.5.2015) in 2 web shops of 3 web shops where substance was found¹.</p> <p>Czech web shop marketing analysis indicated no shop which offered discount for orders.</p> <p>Free gift was not promoted by any web shop.</p> <p>Free shipping was not offering on any web shop. The guarantee of “free reship” for orders was provided by one web shop. The same day dispatch was supported by one web shop.</p> <p>Information about ‘new’ products was mentioned on two web shops.</p> <p>Loyalty program or Reward Point program for customers was available on one web shop.</p> <p>Customer reviews was supported on two web shops.</p>		
8.3	<p>Type of (insert country name) websites selling the product</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 70%;"></td> <td>No of shops (28.5.2015)</td> </tr> </table>		No of shops (28.5.2015)
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¹ The total number of web shops selling new synthetic drugs for CZ (16.3.2015) was 33. (For detail information about methodology of monitoring and selecting the web shops see methodology on <http://www.i-trend.eu/>).

For the marketing analysis we chose 15% of the most popular web shops from CZ list of shops. The shops without prices for products and shops which provide just bulk/wholesale order were removed from our selection. In addition another 6 web shops, previously chosen for the purchase of substances, were added to the marketing analysis. The final number of web shops used for analysis was 11. For latter analysis, we use only shops where product was available.

	RC shops	2	
	Commercial shops	0	
	Other	0	
8.4	Number of webshops available for Czech Republic with supposed country of origin in the EU selling the products		
		No of web shops	
	CZ address or phone number on web sites	0	
	Web shops with CZ IP code	0	
	Web shops with supposed country of origin in the EU ²	2	
9	Law enforcement and health data		
9.1	Number of law enforcement seizures in Czech republic in 2013/2014 3/3697.61 g		
9.2	EMCDDA health alerts in Czech republic No seizure in 2014 were reported		
9.2	Confirmed deaths and acute cases reported in Czech republic were none for both complications.		
10	<u>User experiences of the substance: results from an analysis of discussions Czech republic Drug Forums</u>		
	Methodological comment: The information below is based on an analysis of 2 drug forums, 11 forum posts and 8 forum users.		
10.1	Dosage specified by drug forum users (n = number of quotations)		
	<ul style="list-style-type: none"> • <i>Initial Dosing: There was no discussion on initial dose (n= 0)</i> • <i>Boosting: There was no discussion on boosting dose (n= 0)</i> • <i>Threshold: There was no discussion on threshold dose (n= 0)</i> • <i>Light: There was no discussion on light dose (n= 0)</i> • <i>Common: There was no discussion on common dose (n= 0)</i> • <i>Strong: There was no discussion on strong dose (n= 0)</i> 		

² Including web shops with CZ address or phone number on web sites

<p>10.2</p>	<p>Duration</p> <ul style="list-style-type: none"> • <i>Onset: There was no discussion on onset time (n =0)</i> • <i>Coming up: There was no discussion on coming up(n =0)</i> • <i>Plateau: There was no discussion on plateau (n =0)</i> • <i>Coming down: There was no discussion on coming down (n =0)</i> • <i>After effects: There was no discussion on plateau (n =0)</i> • <i>Hangover/Day after : There was no discussion on hangover (n =0)</i>
<p>10.3</p>	<p>Effects reported by forum users (n = 1)</p> <p><i>Physical effects</i></p> <ul style="list-style-type: none"> ○ <i>Not discussed in Czech forums</i> <p><i>Psychological effects</i></p> <ul style="list-style-type: none"> ○ <i>Euphoria</i> <p><i>Sought/expected</i></p> <ul style="list-style-type: none"> ○ <i>Not discussed in Czech forums</i> <p><i>Desired</i></p> <ul style="list-style-type: none"> ○ <i>Not discussed in Czech forums</i> <p><i>Undesired</i></p> <ul style="list-style-type: none"> ○ <i>Not discussed in Czech forums</i>
<p>10.4</p>	<p>Tolerance</p> <p><i>Tolerance was not discussed in Czech drug forums.</i></p>
<p>10.5</p>	<p>Route of administration (n =0)</p> <ul style="list-style-type: none"> • <i>Ingestion: This ROA of 4-MEC was not mentioned in Czech drug forums (n =0)</i> • <i>Snorting: This ROA of 4-MEC was not mentioned in Czech drug forums (n =0)</i> • <i>Rectal: This ROA of 4-MEC was not mentioned in Czech drug forums (n =0)</i> • <i>Inhalation or insufflation: This ROA of 4-MEC was not mentioned in Czech drug forums (n =0)</i>
<p>10.6</p>	<p>Others substances referred to in discussion about (insert drug name)</p> <ul style="list-style-type: none"> • <i>Referred to in comparing the effects : 4-MEC effects compared to 3-MMC (n =1)</i> • <i>Referred to as increasing the effects: Not mentioned on Czech drug forums (n =0)</i> • <i>Referred to in managing come down: Not mentioned on Czech drug forums (n =0)</i> • <i>Other substance discussed in the same episode/combo: Not</i>

	<p><i>mentioned on Czech drug forums (n =0)</i></p> <ul style="list-style-type: none"> • <i>Referred to as an agonist/ antagonist : Not mentioned on Czech drug forums (n =0)</i>
10.7	<p>Appearance and preparation (n =0) Not mentioned on Czech drug forums (n =0)</p>
10.8	<p>Patterns of use/Frequency of use</p> <ul style="list-style-type: none"> • <i>Not mentioned on Czech drug forums (n =0)</i>
10.9	<p>Context of consumption</p> <ul style="list-style-type: none"> ○ <i>Not mentioned on Czech drug forums (n =0)</i>
10.10	<p>User's views and experiences on the online market</p> <p><i>4-MEC product was no longer available on Czech online market (talked about as illegal), therefore several discussions (dated around July 2013) whether a new product from a Czech online shop "4-MEC analogue" contains 4-MEC and whether the analogue differs from 4-MEC. 2 users confirmed that analogue is much weaker than original 4-MEC and do not recommend to buy it.</i></p>
10.11	<p>Harm reduction Message</p> <ul style="list-style-type: none"> ○ <i>Not mentioned on Czech drug forums (n =0)</i>
10.12	<p>User profile</p> <p><i>Forum users discussing 4-MEC were mostly looking for a reliable supplier of this substance and their trip reports were very short, discussion whether product called 4-MEC analogue contains 4-MEC and has same effects took place. Effects, experiences and dosages of 4-MEC were not discussed.</i></p>
11	<p>Useful resources and literature</p> <ul style="list-style-type: none"> ▪ http://cs.wikipedia.org/ ▪ http://en.wikipedia.org/ ▪ http://www.emcdda.europa.eu/ ▪ NSD zaostreno200404_syntdrogy_web.pdf ▪ http://www.drogy-info.cz/