

# Use of Ketamine in France: recent trends (2012-2013)

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Ketamine is a veterinary and human anaesthetic being used in the medical field since the early 1960s. Some drug users seek the exhilarating, intoxicating and “numbing” effects ketamine produces at low doses, while a smaller fraction of users experiment with higher doses and experience hallucinations and mind-body dissociation<sup>1</sup>. Ketamine is found in liquid form, and is naturally colourless and odourless. It is also found as small, white crystals that, once “cooked”<sup>2</sup>, are transformed into a powder form. Since 2008 and 2009, the use of ketamine has been on the rise beyond the circles in which it is traditionally used [1]. It is also known, among other names, as “Ket”, “K”, “K2”, “Special K”, “Kit kat”, “Cat tranquilisers” and “Cat Valium”.

## TREND SCHEME: METHODOLOGY

TREND (Emerging Trends and New Drugs) is a scheme established by the OFDT in 1999. TREND endeavours to detect emerging phenomena and trends in illegal drug use, including trends in substances, supply, routes of administration and user profiles. To fulfil its observation mission, TREND relies on a network of seven sites (Bordeaux, Marseille, Lille, Metz, Paris, Rennes, Toulouse) with shared information collection tools (continuous ethnographic observations, qualitative questionnaires and focus groups) employed in urban settings and on the party scene. Urban settings and the party scene were not selected for geographic reasons, but rather, with a population-based approach in mind: urban settings play host to disadvantaged users who frequent CAARUDs and open spaces (the street, squats, areas prone to drug dealing); the party scene is frequented by people attending free parties, clubs, discotheques and private parties. The TREND scheme also encompasses an observation system geared towards identifying and analysing the toxicological composition of illegal substances: the SINTES (National detection system of drugs and toxic substances) scheme.

1. It induces a sensation of dissociation between the mind and the body, inducing out-of-body experiences (astral projection) or near-death experiences.

2. „Ketamine is initially in liquid form and must be heated to obtain a crystallised powder that can then be taken intranasally (snorted). One litre of liquid can produce 50 grams of powder [...] Various techniques can be used to prepare ketamine, but the basic principle involves evaporating water to leave behind the psychoactive substance.” (Paris TREND Report, January 2014).

Ketamine misuse became apparent in France in the late 1990s in the wake of the techno movement. In 1999, the TREND system revealed a spillover of the substance into the party scene [2]. However, at the time, use was limited to a very small fringe of the alternative party scene (free parties) comprised mainly of nomadic travellers who used the substance for its powerful dissociative and hallucinogenic effects. The potential of the use of ketamine to spread was kept in check by its fairly negative image: the drug was feared because of its radical effects. These effects appeared to be the opposite of what tends to be sought on the techno party scene, and due to its characteristics, ketamine was frequently associated with heroin. Some users considered ketamine as psychedelic heroin [3], while others perceived it as a kind of “outer limits” substance in the range of available substances [4]. This situation gradually changed. Initially, on the alternative party scene, ketamine started to be used by new types of users whose profiles largely differed from those seen up until then<sup>3</sup>. Use spread to larger groups frequenting the alternative party scene and who were generally polydrug users. To a lesser extent, it also began spreading towards the partygoing population. In parallel, regular use among addicted and often socially isolated users appeared. This progressive spread was fostered by new ketamine uses that were no longer based on seeking a radical dissociative state, although certain users still sought this, but rather on seeking the intoxication, loss of inhibition, and even mild hallucinations produced by the drug at lower doses.

## TREND NETWORK OBSERVATIONS IN 2012 AND 2013

In 2012-2013, the TREND network sites reported a continued spread of ketamine use in both the alternative party scene and other settings (clubs and discotheques) as well as in the urban setting (among marginalised users) due to the improved image of the product and subsequent diminished fear.

### A MARKET THAT DOES NOT MEET DEMAND DUE TO TRAFFICKING THAT IS STILL FAIRLY UNSTRUCTURED

#### *Availability*

In 2012-2013, although certain sites reported an increase in ketamine availability (Bordeaux, Toulouse), others simply mentioned that its availability remains at a high level (Rennes, Lille), while others emphasised the erratic nature of the substance’s presence and the inability of supply to meet demand (Paris, Metz, Marseille). Nearly all TREND sites reported cyclic supply, in which periods of high ketamine availability alternated with phases of shortage.

Ketamine is mainly available at alternative party events, except for those taking place in Bordeaux and Toulouse, and to a lesser extent, Metz<sup>4</sup>), where it is accessible, albeit irregularly, in the urban setting.

The spread of the substance also seems to have been promoted by the appearance of a “ready-to-use” substance supply that began to appear in 2011. While in the past it was sold directly in its liquid form to users, who prepared it themselves, today it is being offered with increasing frequency in powdered form, i.e., already “cooked” by dealers. However, these dealers are usually isolated users who sell off some of the powdered ketamine that they prepare themselves. Furthermore, observers report that “cooking” occurs less and less frequently at party events because the drug is being prepared in advance. Dealers at party events are still few and far between, and it seems that the quantities of ketamine available on the party scene disappear quickly.

This varying availability frequently goes hand in hand with accessibility, requiring potential users to know the networks likely to sell the substance (Paris, Lille, Marseille).

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3. The quantitative survey conducted between 2003 and 2005 on the use of psychoactive substances by rave partygoers clearly demonstrated the different levels of prevalence depending on the setting. Subsequently, recent statistics reveal that 6.5% of alternative partygoers use ketamine versus 0.2% of clubgoers. REYNAUD-MAURUPT C., CADET-TAIROU A., Psychoactive substances among Electro party scene enthusiasts, *Tendances* n°56, OFDT, 2007.

4. However, this is not the case in Nancy.

## Trafficking

However, the supply network remains poorly structured (or even totally unstructured). There are no regular networks or trafficking. This is evidenced by the quantities seized by law enforcement services; these quantities are only a few kilograms (4 kg in 2013). Often erratic, the seizures demonstrate that there has been no particular trend in the last five years.

The source of the ketamine sold on the French market remains unclear. Ketamine sources mentioned by users are always the United Kingdom and India. Users in south-western France (reported previously by Bordeaux and in 2013 by Toulouse) occasionally source from Spain. Older reports by these sites mention dealers bringing ketamine back from India, where it is ordered locally in pharmacies, and then provided in jugs containing 1 to 10 litres. It is then reportedly repackaged in shampoo or Hextril® bottles producing samples that are sometimes coloured. However, according to dealers, access to the product in Indian pharmacies is not as easy as it used to be. Users and dealers generally confirm that ketamine transits in liquid form. More recently, users mentioned ketamine arriving in France in crystallised form. This is confirmed by information provided by Paris law-enforcement services, which reported seizures of slightly crystallised powdered ketamine coming from Asia.

Reports also mention that people who have access to veterinary ketamine and hospital ketamine (reputed to be purer) remove small quantities.

**Table 1 - Standard ketamine price per gram in Euros and product availability, 2012-13**

Sites (by setting)	Standard prices in euros	Availability
Bordeaux	50	On the rise (urban setting, clubs, discotheques)
Lille	40	Stable, high (alternative party scene, mega dance parties)
Marseille	40	Erratic (alternative party scene, urban parties)
Metz	50	Erratic (alternative party scene, urban setting)
Paris	45	Erratic (alternative party scene, urban rave parties)
Rennes	50	Stable, high (alternative party scene)
Toulouse	50	On the rise (urban setting, clubs, discotheques)

Source: TREND/OFDI

Purchases on the Internet were not mentioned<sup>5</sup>.

## Prices

The relatively high prices of a gram of powdered ketamine, i.e., 40 to 50 Euros (see table above) seem to make trafficking interesting, especially in a context where demand is clearly on the rise.

The prices may vary significantly from the standard price, especially when there is a shortage of substance. Several sites reported an increase in prices in 2012 or 2013 against a backdrop of reduced quality of the substance.

## COMPOSITION: SALES OF METHOXETAMINE PROMOTED AS KETAMINE

In 2012 and 2013, the ketamine market was characterised by the sale of methoxetamine (MXE) promoted as the ketamine expected by users, both on the party scene and in the urban setting. MXE is one of the rare new psychoactive substances that not only has elicited real interest in online user forums, but also appears regularly on traditional markets (direct dealing by an individual). Its effects are similar to those of ketamine, but they are much more powerful and longer lasting.

5. In the ENa-CAARUD 2012 survey, only 2 users in 286 stated having ordered ketamine on the Internet.

Sales of MXE promoted as ketamine, even though MXE can be sold as MXE, are apparently supported by ketamine's unpredictable availability. MXE causes frequent complications (malaise and psychological or psychiatric disorders). About 20 hospitalisations were reported in 2011 and 2012 by the ANSM addiction vigilance network. Moreover, of 16 "ketamine" samples collected in 2013 and the first quarter of 2014 by the SINTES network, seven were actually MXE (collected due to unusual, undesirable effects). These events gave rise to a MARS (Quick health alert message) information sheet distributed by the National Health Directorate (DGS) mainly to SMURs (Mobile critical care units) and ELSAs (Addiction liaison and treatment teams) [5] to raise their awareness on this issue.

The few samples of ketamine that were analysed did not reflect the characteristics of the circulating substance. The levels of purity observed in 2013 and early 2014 ranged from 47% to 100%. Nearly all samples only contained ketamine as an active substance. The Bordeaux site reported three testimonials from user-dealers in 2013 stating they themselves cut their ketamine with lidocaine. However, these claims were not verified by the seven analyses performed within the scope of SINTES. In contrast, a collected powder sample containing only lidocaine had been sold as ketamine.

## **USE THAT IS SPREADING AMONG NEW POPULATIONS**

In 2012 and 2013, all TREND scheme sites observed a more varied profile of ketamine users. However, the process is not identical everywhere. At certain sites, like in Paris and Rennes, the spread did not progress beyond the original setting, i.e., the alternative party scene. At other sites, use expanded to include the more traditional party scene (commercial and private). In Toulouse, Bordeaux and, to a lesser extent, Metz, the use of ketamine spread to non-partygoing populations.

### **Party scene**

On the party scene, beyond "traditional" users belonging to counter-culture fringes of the alternative party scene (nomads, travellers), the majority of new ketamine users are younger, frequent the alternative party scene and are generally polydrug users. Although it is difficult to estimate the respective sizes of these populations, based on TREND site observations, it appears that polydrug users form the largest category and are at the heart of the current spread of ketamine use in France.

However, the substance is starting to gain popularity in settings that have no relationship to this circle of users. Subsequently, ketamine users are observed among young populations frequenting urban rave parties and clubbers, who are generally older, all of whom are attracted to the "exhilarating" effects of the drug (intoxication). Ketamine users may also use it during private parties, after-hours parties, concerts or festivals.

A proportion of young users known as "Pac-Man", an expression proposed by the "Spiritek" association referring to users who tend to try anything, apparently use ketamine like they do other substances, in a relatively irrational manner with disregard for any risks. However, the abuse reported in 2011, such as voluntarily searching for the K-Hole (loss of consciousness), consuming large quantities of alcohol followed by ketamine (the "Rocketta" effect) and competitions to see who can take the most ketamine, are no longer reported by the sites.

All sites agree that this increasingly widespread use can be explained by a trivialisation of the substance (see paragraph below "A better image of the substance among users"). Likewise, sensations of intoxication and the mild hallucinations produced by using small quantities of the substance are becoming compatible with use seen in club and discotheque settings.

### **Urban setting**

Since 2009, ketamine has mainly been used by precarious populations, as evidenced by the prevalence of last-month use among people frequenting CAARUDs [6]. This use is seen mainly in fairly young, socially isolated users in the urban setting. These are considered "satellite" populations of the party scene. This expanding population is supposedly encouraged by the sale of ready-to-use ketamine. The proportion of recent ketamine users among the CAARUD clients was stable (7.4% in 2010 and 8.6% in 2012), although the difference was not statistically significant.

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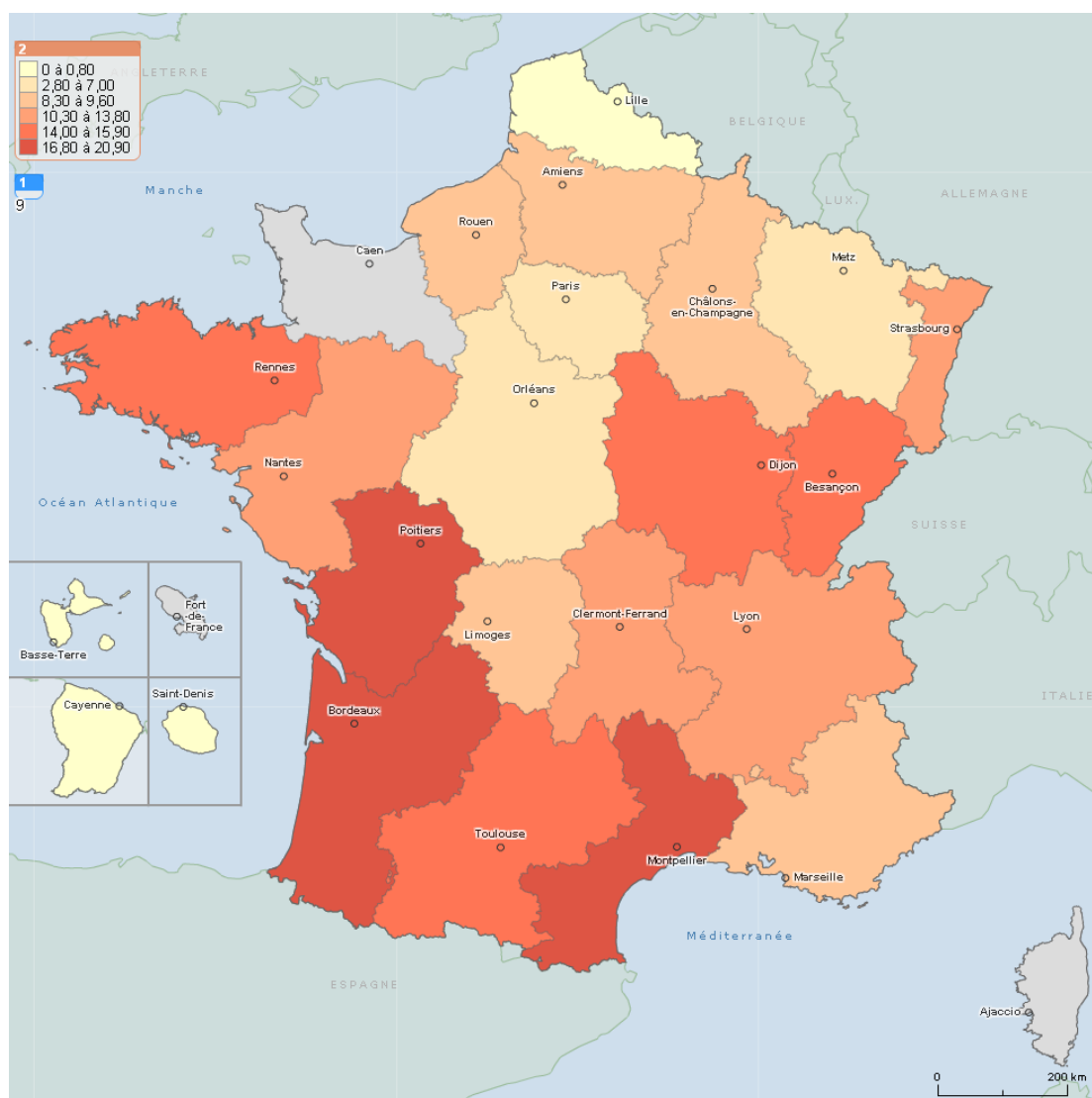
6. See the SINTES memorandum on MXE: [http://www.ofdt.fr/BDD/sintes/ir\\_methoxetamine\\_111105.pdf](http://www.ofdt.fr/BDD/sintes/ir_methoxetamine_111105.pdf) (in French)

## KETAMINE USERS IN CAARUDs, 2012

The 247 recent ketamine users (i.e., last-month users) surveyed during the ENa-CAARUD survey correspond to the aforementioned profile: they are 30 years of age on average versus 36 years of age for non-recent users. Nearly one quarter of them are under the age of 25 years, half are between the ages of 25 and 34 and one quarter 35 years of age or older. In CAARUDs, recent ketamine use remains a strong indicator of polydrug use and is evidence for a profile characterised by use of substances found in party settings. Therefore, ketamine users consumed a mean of 7.5 different substances in the last month versus 3.6 for ketamine non-users. A ketamine user is twice as likely as a non-user to have engaged in recent opioid or cocaine use, and 6 to 10 times as likely as a non-user, depending on the substance, to have used substances found most often on the party scene (MDMA, amphetamines, LSD).

The majority (68.7%) of ketamine users had injected a substance in the last 30 days versus 44.2% of ketamine non-users. Four in ten had injected before the age of 18 years. Ketamine itself is mainly snorted (75%) or injected (31.9%), rarely ingested (5.7%) and almost never inhaled. Only 10 of the 1,819 users who had engaged in lifetime injection stated that ketamine was the first substance ever injected. Ketamine is almost never mentioned as the most troublesome substance (primary drug) of a given user (0.3%), including ketamine users.

Figure 1 - Proportion of CAARUD clients stating having engaged in last-month ketamine use prior to the survey, by region, 2012



Source: ENa-CAARUD 2012, OFDT/DGS

**Table 2 - Prevalence of last-month ketamine use among CAARUD clients by regional group, 2012**

Inter-regional zones	Proportion of last-month users
North-West	3.8%
West	15.6%
Ile de France (region that includes Paris and Greater Paris)	2.8%
East	9.2%
Massif Central-Centre (South central regions of France)	10.7%
Rhône-Alpes (region located on south-eastern border of France)	11.8%
PACA (or Provence-Alpes-Côte d'Azur, a region in south-eastern France) and Corsica	8.3%
Southwest	16.9%
Overseas departments and territories	0.0%
France	8.6%

Source: ENa-CAARUD 2012, OFDT/DGS

## A BETTER IMAGE OF THE SUBSTANCE AMONG USERS

“Learning” how to use ketamine helps users to better control the drug’s effects and contributes to trivialising the use of the substance. In contrast with the early 2000s, when the substance was regarded very negatively in the techno party scene, the image has become increasingly positive since 2009 in settings in which users consume psychoactive substances. Starting in 2011-2012, the image of “cat tranquilisers” as being dangerous substances with uncontrollable effects, gradually gave way to an image among users of a festive, amusing drug. This can be seen in certain ketamine use-related expressions (“Good for you, Special K”) [7].

Moreover, ketamine is still considered to be a fairly pure drug, even though some reports are beginning to mention a decline in purity. In addition, the product’s status as an anaesthetic (medication) reassures users.

Ketamine users also consider the fact that it is not detected by salivary DUI (driving under the influence) tests as an advantage. They also consider the short-lived effects (20-40 minutes) a plus, since both of these aspects enable people to drive after using the substance.

However, not all partygoing drug users are in favour of ketamine, which they criticise as not being very empathogenic, tending to isolate users from their group and creating a “zombie-like” state in some.

## EFFECTS OF USE

Of the extensively-described sought-after effects, data from 2010 and 2013 indicate that intoxication or euphoria are now more sought-after than dissociative or introspective effects in the last few years.

Some users also consume during after-hours parties to ease coming down off of stimulants or hallucinogens.

The coordination of the Rennes site reported the case of a user who supposedly consumed the substance to wean off of opioids.

## ROUTE OF ADMINISTRATION

The primary route of administration is snorting.

Some users inject intramuscularly or intravenously. Intramuscular injection (and in rare cases, subcutaneous injection), which was the main route of injection in the last few years, was mentioned less and less frequently in 2013 (due to pain). Users switched to intravenous injection, which had been reported as a very rare route of administration, due to the rapid onset of effects (Bordeaux, Toulouse, Marseille). Whether these practices are employed in an urban setting or on the party scene, the users seemed to already have been injecting drug users.

Users inject with diluted powder, but some inject uncooked liquid ketamine, especially if they are in possession of a hospital- or veterinarian-sourced product (Bordeaux site).

The Bordeaux site also reported new uses, such as vapour inhalation (“chasing the dragon”) and the Paris site reported marginal practices such as intra-anal ketamine use.

Ketamine is deemed easy to combine with other substances. Some users consume ketamine to control “coming down” off of stimulants and hallucinogens. Moreover, they like modulating ketamine’s effects with cocaine, MDMA or even LSD.

## HEALTH PROBLEMS

Despite the spread of ketamine use in the last few years, the network of sites only reported a few cases of loss of consciousness or coma related to ketamine use in 2012 and 2013. This phenomenon may be explained by the harnessing, by more experienced users, of the substance’s use, testifying to increasingly mastered ketamine use and wariness by users not wanting to consume excessive doses due to the potentially harmful consequences this entails (loss of consciousness).

The most frequently mentioned health problems are bodily harm (multiple cuts, sprains, fractures) that can arise through user action due to the substance’s anaesthetic properties. These health issues are exacerbated by problems arising due to uncontrolled ketamine “intoxication” (altered motor and visual capacities).

The Bordeaux site also reported heightened aggressiveness likely to degenerate into violence in clubs, and that such violence is difficult to control because ketamine users do not feel pain.

Some of the unexpected effects seen in the last two years following alleged ketamine use may be due to sales of methoxetamine instead of ketamine.

Memory disturbances while “under the influence of ketamine” have been reported, and one case of ketamine being used as a predator drug has also been recorded.

Several sites also mentioned small numbers of partygoing users who became chronic users, lost control of their use and became socially marginalised. The Toulouse site mentioned the example of inexperienced user-dealers who were not able to control their accessibility to the substance and became dependent. Users emphasise the speed with which tolerance and addiction develop.

As in previous years, chronic users reported urinary symptoms, such as cystitis.

## CONCLUSION

Ketamine is undoubtedly the psychoactive substance whose image has changed the most in the last few years. Previously seen as a drug for experienced users with effects that are radically antagonistic to the partygoing mindset (“dissociation” versus “community”), ketamine has undergone an image change and, for a fraction of users, has become an “exhilarating” and “amusing” substance. This image change has encouraged the spread of use, even though the substance still has not transformed into a commonplace drug for many users. Today, ketamine is breaking out of the settings in which it was commonly used in the past: the alternative techno party scene. Now, young populations on this scene as well as clubber and marginal user (CAARUD) populations consume ketamine. In the latter group, ketamine is only one of many substances used by established polydrug users. However, on the party scene, not all illegal drug users have adopted the substance and future use trends are difficult to predict. Moreover, despite increasing availability and accessibility through the sale of “ready-to-use” ketamine, trafficking for this substance remains unorganised. However, given the severity of the potential effects, the spread of ketamine use, especially among young and uniformed users, should be monitored.

## APPENDIX

Table 3 - Composition of the inter-regional zones used in Table 2

Grouping	Population	% National	Included regions
Northwest	398	13.7	Nord-Pas-de-Calais, Haute-Normandie, Basse-Normandie, Picardie
West	238	8.2	Bretagne, Pays de la Loire, Poitou-Charentes
Ile de France	691	23.8	Ile de France
East	373	12.8	Alsace, Lorraine, Champagne-Ardenne, Franche-Comté
Massif Central-Centre	169	5.8	Centre, Bourgogne, Auvergne, Limousin
Rhône-Alpes	154	5.3	Rhône-Alpes
PACA and Corsica	232	8	PACA and Corsica
Southwest	517	17.8	Aquitaine, Languedoc-Roussillon, Midi-Pyrénées
Overseas departments and territories	133	4.6	French Guiana, Guadeloupe, La Réunion

Source: ENa-CAARUD 2012 / OFDT

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