



# FDNY FIREGUARD

## Bath Salts

Legal, Synthetic Amphetamines

May 31, 2012 (revised)



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## Why are these drugs called 'Bath Salts'?

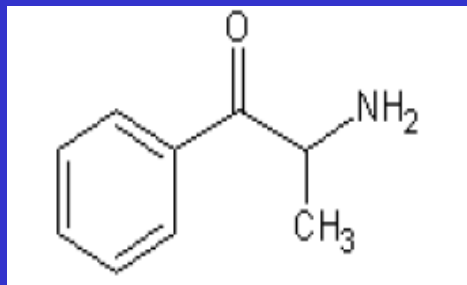
- Collectively called 'Bath Salts,' sold as Purple Wave, Vanilla Sky, Bliss, etc.
- May be sold as bath salts, but not the same chemical compound as Epsom Salt (magnesium sulfate) or other legitimate water-soluble therapies.



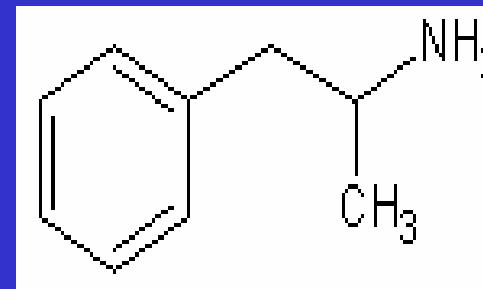
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- Bath Salts are used similar to amphetamine
- made synthetically
- Chemically designed to mirror cathinones (triggers release of dopamine in user)



Cathinone



Amphetamine



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## Cathinone Origin

- Chewed since the 14th century throughout Middle East and Africa
- an amphetamine-like central nervous system stimulant, but not as potent as amphetamine (less ability to cross the blood-brain barrier.)
- Illegal in Europe, except in Great Britain
- Made a controlled substance in the U.S. in 1993



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Derived from *Catha edulis* plant



## KHAT

(aka: Arabian  
tea, qat, gat,  
qaat, jaad, chat  
or jimma)

Contains natural cathinone



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## Synthetic Cathinones

### Mephedrone

- 4-methylephedrone or 4-MMC
- 1929 First synthesized
- Reintroduced in 2003
- Found in illicit “Bath Salts” and other products (2008-present)





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## Synthetic Cathinones



## MDPV (Methylenedioxypropylvalerone)

- First synthesized in 1968, patented to counteract chronic fatigue.
- Problems of abuse and dependence.
- Found in illicit “Bath Salts” (2009-present)





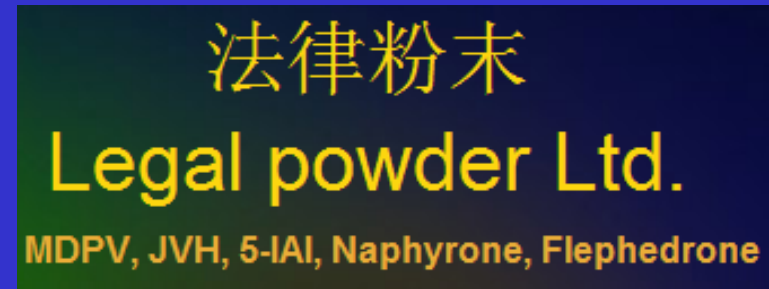
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## Production and Distribution

Manufactured in bulk in foreign countries  
(China, India, and Pakistan)

- Mislabeled to appear as legal products



- Retail price of \$40-\$60 per gram, bought:
  - Internet
  - Convenience Stores
  - Gas Stations
  - Head Shops
  - Tattoo Parlors





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## Recent 'Bath Salt' Seizure in NYC

On June 28, 2011, DEA seized 40 kg of the synthetic cathinone (valued at \$2 million) from several NYC locations.





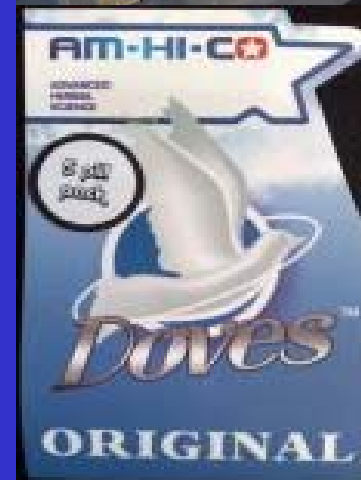
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## ‘Bath Salts’ Marketing and Packaging



- herbal treatment
- incense
- plant food or fertilizer
- insect repellent
- pond cleaner
- vacuum freshener





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## Mephedrone (4-methylephedrone or 4-MMC)



- White, crystalline powder with light yellow hue
- Unpleasant odor (vanilla and bleach, stale urine, or electric)

## MDPV (Methylenedioxypropylvalerone)



- 'Dirty' or 'tan' – copper-colored powder (free-base form)
- 'Pure' batch – white powder
- European 'grey' powder



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## Methods of Intake



- Ingesting
- Inhaling
- Injecting
- Smoking
- Snorting
- Atomize in water and inhale
- Eye drops or nasal spray



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## CFR Response Signs and Symptoms



- Foaming at the mouth
- Breathing rapidly
- Extremely rapid heart rate
- Resisting treatment
- Incoherent Speech



- Combative
- Hallucinating
- Anxious and paranoid
- Muscle pain
- Continuous movement



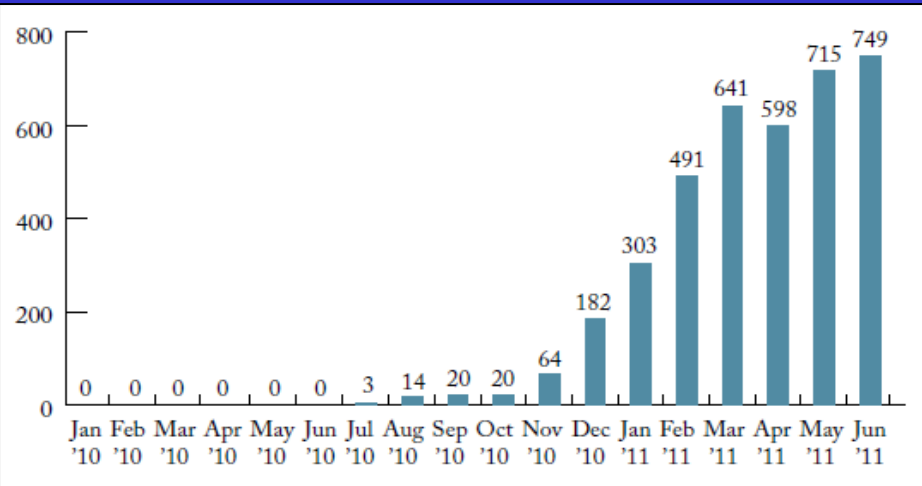


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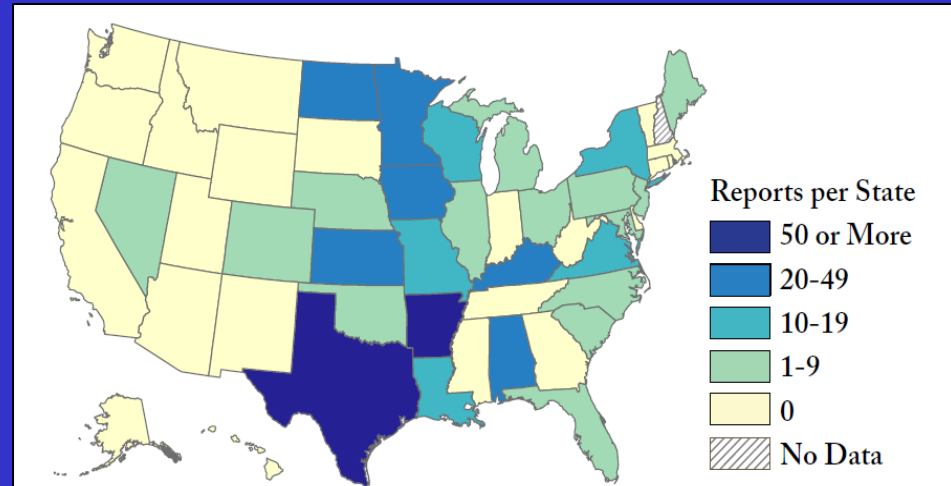


## Calls to Poison Control: Synthetic Cathinone Reactions

### National Count



### 2010 State Distribution



## New York City Incidents

(as per NYC Poison Control)

2011 - 27

2012 - 4 (as of March)



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## Legality

Included in 1986 Controlled Substance Analogue Enforcement Act of controlled unregulated substances (for human consumption) that mimic controlled substances.



10/21/2011 U.S. DEA

Prohibited the selling or possessing of Mephedrone, MDPV, and Methylone or products that contain these chemicals for a one year period.



Similar labeling found on most synthetic cathinone products



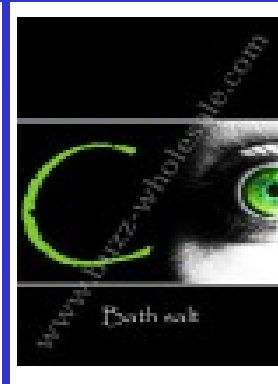
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## The Future of Bath Salts

### Federally Unregulated Stimulants Now in Use

Desoxypipradrol, 3-FMC, Ethylone, Butylone, Flephedrone, Methedrone, ETH-CAT, Metamfepramone, MDPPP



Continues to be sold as plant food, herbal incense, plant fertilizer, insect repellent, pond cleaner, and vacuum fresheners.

**Newly marketed as electronic screen cleaners.**





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Information as of May 31, 2012