



Laboratory Information Bulletin

Dear Reader,

Welcome to the first edition of the CNPA's Laboratory Kabul quarterly Information Bulletin (LIB) which introduces a series that we hope will be both long-lasting and valuable. The LIB is designed in cooperation with UNODC country office for Afghanistan to become a platform of information and communication, not only for the key stakeholders, but also for the law enforcement and scientific community. It will inform its readers of the activities and improvements in working procedures and capacity of the Lab to generate critical basic forensic information on seizures of drugs and precursor chemicals in Afghanistan.

BACKGROUND

UNODC has taken the lead in supporting and strengthening the operational capacities of the Counter Narcotics Police of Afghanistan (CNPA), in cooperation with the Government of Afghanistan (GoA) and the international law enforcement community and set up a basic laboratory inside the headquarters of the CNPA compound in Kabul in 2004/05 under Project AFG/G38.

The laboratory was equipped with basic instrumentation for TLC (Thin layer chromatography), UV/VIS-spectroscopy, microscopy and colour testing. It is being upgraded further and its staff is provided longer-term mentoring under Project AFG/J43.



The main purpose of this lab is to undertake the analysis of a variety of seized narcotic drugs including opium, morphine, heroin, cannabis products, and precursor material, adulterants and cutting agents pursuant to Afghan law.

In this Bulletin, we provide an overview of the most interesting forensic findings on exceptional drug seizures in Afghanistan between August and December 2008.

Over the reporting period, a total of almost 1.3 tons of seized materials of which samples were submitted to the lab as heroin were found upon analysis to be either no heroin or to contain heroin in combination with other substances, namely phenolphthalein, paracetamol and chloroquine. While all three substances have been found in seized heroin in the past, their present availability on the illicit drug market in Afghanistan is not known.

Phenolphthalein

2,2-Bis(*p*-hydroxyphenyl) phthalide, C₂₀H₁₄O₄, a white or pale yellow crystalline organic powder. In pure water it is insoluble, but soluble in basic solutions, in ethanol or acetone. In a solution with pH greater than 8 (pH 8 is mildly basic) phenolphthalein is pink to red in colour, but at pH less than 8 it is colourless.



Phenolphthalein is used as an acid or base indicator where in contact or presence of acid it will turn colourless and with base; it will turn into a pinkish violet colour.

Phenolphthalein has been used for over a century as a laxative, but is now being removed from the market because of concerns over carcinogenicity.

Sample characteristics, amount of seizure	Date	Location, Province	Laboratory results
white powder, received under the name of heroin 10 kg	August 2008	Nimroz	Phenolphthalein
brown granular material, received under the name of heroin 28 kg	September 2008	Zarang Ghor	Phenolphthalein Heroin Base Morphine
white powder, received under the name of caffeine 0.050 kg			Phenolphthalein Caffeine Heroin Base
white powder, received under the name of chemical compounds 23.5 kg	October 2008	Kandahar	Phenolphthalein
brownish nuggets of powder, received under the name of heroine 18.6 kg	October 2008	Herat	Phenolphthalein Heroin Hydrochloride

Paracetamol

Or **acetaminophen** is a white, odourless crystalline powder with a bitter taste, soluble in 70 parts of water (1 in 20 boiling water), 7 parts of alcohol (95%).

It is a widely-used analgesic and antipyretic medication. Derived from coal tar, it is the active metabolite of phenacetin, but unlike phenacetin, paracetamol has not been shown to be carcinogenic in any way. Paracetamol generally is well tolerated, lacks many of the side-effects of aspirin, and is available over-the-counter. It is commonly used for the relief of fever, headaches, and other minor aches and pains.

Sample characteristics, amount of seizure	Date	Location, Province	Laboratory results
white and beige powder, received under the name of heroin 1000 kg	September 2008	Hilmand	Paracetamol
white and beige powder, received under the name of heroin 28 kg	September 2008	Hilmand	Paracetamol
white powder, received under the name of heroin 86 kg	September 2008	Grashk Hilmand	Paracetamol

Chloroquine

A 4-aminoquinoline compound is an antimalarial and amebicidal drug for oral or parenteral administration. It is a white, odourless, bitter tasting, crystalline substance, freely soluble in water.

Chloroquine is very dangerous in overdose. It is rapidly absorbed from the gut and death often occurs within



Seizure of 74kg Chloroquine at Kunduz

2½ hours of taking the drug. The therapeutic index for chloroquine is

small and just doubling the normal dose of chloroquine can be fatal. As little as 1 g may be fatal in children. Toxic symptoms can occur within minutes. These consist of headache, drowsiness, visual disturbances, nausea and vomiting, cardiovascular collapse, shock and convulsions followed by sudden and early respiratory and cardiac arrest.



Seizure of 17kg Chloroquine at Kabul

Sample characteristics, amount of seizure	Date	Location, Province	Laboratory results
yellow crystalline powder, received under the name of heroin 4.6 kg	November 2008	Kunduz	Chloroquine Sugar
beige powder and granular material, received under the name of heroin 5.8 kg	November 2008	Kunduz	Chloroquine Sugar
yellow crystalline powder, received under the name of heroin 74 kg	November 2008	Kunduz	Chloroquine Sugar 2 samples containing Heroin
beige granular material, received under the name of heroin 3 kg	November 2008	Kabul	Chloroquine Sugar
beige granular material, received under the name of heroin 17 kg	December 2008	Kabul	Chloroquine Sugar

Further Information

For further information or queries regarding this product please contact:



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