



Laboratory Information Bulletin

Dear Reader,

Welcome to a new edition of the CNPA Kabul's Laboratory Information Bulletin (LIB) which continues a series that was started in late 2008 and which we hope will be both long-lasting and valuable. LIB is designed in cooperation with the UNODC country office for Afghanistan and is intended to become a platform of information and communication, not only for the key stakeholders, but also for the law enforcement and scientific community. Readers will be informed of activities and improvements in working procedures at the laboratory as well of its capacity to generate critical basic forensic information on seizures of drugs and precursor chemicals in Afghanistan.

BACKGROUND & NEWS

The Counter narcotics Police of Afghanistan (CNPA) was legally established within the organizational structure of the Afghan National Police of the Ministry of Interior in January 2003. One of the key areas in which UNODC is providing support to CNPA is with the establishment and management of a credible central Forensic Laboratory, run by Afghans scientists, dedicated to the analysis of samples/seizures of controlled drugs and precursor chemicals from the whole country.

During 2009, the laboratory processed a total of 3,386 samples. The majority (61%) consisted of heroin and opium, followed by 18% precursor chemicals (including non-controlled), 13% cannabis (including "raw hashish") and 9% of materials from the heroin processing (press cake, etc.). Furthermore, for the first time, CNPA and UNODC have confirmed two small seizures of methamphetamine in Afghanistan.



Seizure of 600 kg "Raw Hashish"



Traditional dress prepared with heroin tubes

Portable Chemical Identifier

Following an independent evaluation sponsored by UNODC which recommended improving the analytical capacity of the laboratory through the acquisition of additional instrumentation taking into consideration local conditions. As a first step, a portable infrared spectrometer has been installed in during 2009. Upon receipt of the equipment staff of the laboratory received a three day training course on the use of the instrument by an expert from the company.

The field portable Fourier Transform Infrared spectrometer (FT-IR) can be used for both quantitative and qualitative material analysis of solids, powders, pastes and liquids.

The technique is non-destructive and operates from internal R/C batteries or power supply. It is rugged, compact, self-contained and fully waterproof. It can be used in extreme temperatures and in humidity of 0-100%.

The use of this instrument combined with TLC and colour tests allows the CNPA Laboratory to meet recommended minimum standards for drug analysis. Furthermore, the instrument generates excellent reviewable data.



International Collaborative Exercises (ICE) 2009

The UNODC's International Collaborative Exercises aim at allowing forensic laboratories to continuously monitor their performance in drug testing on a global scale and take corrective actions, when appropriate. This is an essential element for the implementation of good (forensic) laboratory practice and quality management systems. The ICE is offered twice annually for drug analysis in both, seized materials (SM) and biological specimens (BS).

The exercise provides an overview of performance and capacity of participating laboratories and enables UNODC to tailor technical support in a sector for greatest impact.

In 2009, the CNPA Laboratory registered in the ICE and participated for the first time in 2009 Round 2 after consultations with the national Drug Regulation Committee (DRC) of Afghanistan on the legal aspects, drawbacks and opportunities of participation. Due to difficulties with the issuance of import certificates for narcotics, psychotropics and precursors, the laboratory only received three SM test samples (ATS, cocaine and cannabis) for analysis. The analytical results with additional information on emerging trends in drug and precursor seizures in Afghanistan have been forwarded to UNODC's Laboratory and Scientific Section timely.

The evaluation of the results shows that the CNPA Laboratory correctly identified (qualitative analysis) the three ICE 2009/2 test samples.

UNODC
United Nations Office on Drugs and Crime

LABORATORY AND SCIENTIFIC SECTION
International Collaborative Exercises (ICE)

Date: 27/05/09

Please complete the following:

Our laboratory wishes its participation in ICE: Yes No

If yes, please indicate the respective group:

Seized Material Group
 Biological Specimens Group
 Seized Material Group and Biological Specimens Group

Please indicate contact details:

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 Country: Afghanistan
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 Institution/Laboratory fax Number:

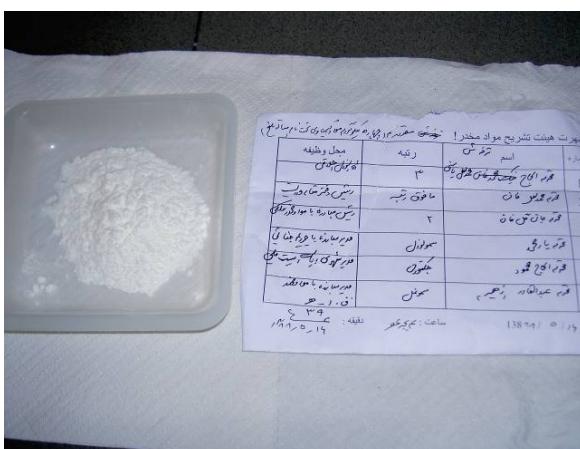
A commitment to quality and continuous improvement

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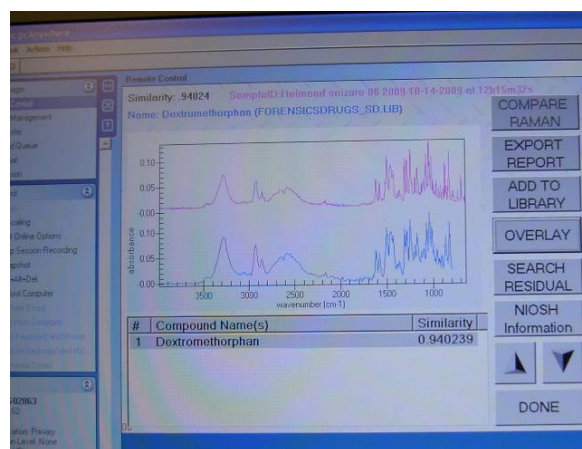
Dextromethorphan

During an operation in Helmand province in August 2009, CNPA recovered 300 kilogrammes of a that local illicit chemists refer to as "coffin masala" and 14kilogrammes of a second substance referred to as "tarkha masala" (hot spice).The tarka masala is apparently used in the crystallisation stage of heroin production at a ratio of 10:1 (heroin: tarka masala).

Samples of both white crystalline materials were sent to the CNPA laboratory where the "coffin masala" was identified as caffeine and the "tarka masala" as dextrometorphan hydrobromide. Both compounds were pure, not cutted.



Sample of "Tarkha Masala"



HAZMATID: IR-Spectra of "Tarkha Masala"

Dextromethorphan (DXM or DM) is the stereoisomer of levomethorphan, an opioid analgesic. Its name, according to IUPAC rules, is (+)-3-methoxy-17-methyl-9 α ,13 α ,14 α -morphinan. It is a white powder, and sold primarily in tablet, capsule and liquid forms.

Dextromethorphan acts centrally to elevate the threshold for coughing caused by minor throat and bronchial irritation, and has no significant analgesic or sedative properties as antitussive doses. It is believed that dextromethorphan may be a glutamate and NMDA antagonist, blocking the dopamine re-uptake site. Additive CNS depressant effects are experienced when co-administered with alcohol, anti-histamines, psychotropics and other CNS depressant drugs.

At higher than medically recommended doses, dextromethorphan is classified as a dissociative psychedelic drug, with visible effects that are similar to those of ketamine and phencyclidine (PCP). It can produce distortions of the visual field, feelings of dissociation, distortions of bodily perception, excitement, as well as a loss of comprehension of time.

Further Information

For further information or queries regarding this product please contact:



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