

## **TOPIC No. 6**

### **INTRODUCTION TO PRECURSOR CHEMICALS - THEIR LICIT AND ILLICIT USES; IDENTIFICATION THROUGH FIELD TEST KITS**

<b>DURATION OF SESSION:</b>	<b>1 HOUR TO 1½ HOURS</b>
<b>SUGGESTED METHOD:</b>	<b>LECTURE AND DEMONSTRATION</b>
<b>TRAINING AIDS:</b>	<b>OHP, POWERPOINT PRESENTATION, SAMPLES, PRECURSOR TEST KITS</b>

#### **AIM OF THE SESSION:**

The session aims at familiarising the participants with precursors and essential chemicals. The session will explain physical appearance, legitimate uses, illicit uses of 23 precursor chemicals listed in Tables I and II, naming the countries where they are generally produced and the quantity of the drug that may be produced from 1 kg/1 litre of the precursor. The session will also caution the participants about the precautions necessary while handling these precursors. The session will also familiarise the participants how test kits are to be used so as to identify these chemicals.

#### **OBJECTIVE OF THE SESSION:**

At the end of this session, each participants will be able to:

1. Gain basic knowledge of the appearance, uses etc. of the 23 Tables I and II substances;
2. Take necessary precautions while handling them;
3. Use the field test kits to identify these substances.

#### **POINTS TO BE COVERED:**

- It is important for both drug law enforcement officers and laboratory staff to possess adequate knowledge about precursor chemicals and the skills to test them. Law enforcement officers should be able to conduct field tests with the help of field testing kits and laboratory staff should be able to conduct a confirmatory tests,
- The term 'precursor chemicals' refers to substances frequently used in the illicit manufacturing of narcotic drugs and psychotropic substances.
- Strictly speaking, all these substances are not 'true' precursors. They include essential chemicals, reagents, solvents and catalysts.
- Precursor - A precursor is a material that is specific and critical to the production of a finished chemical. It is incorporated into the drug (end

product) molecule itself and it contributes to a major portion of the final molecular structure of the drug. The term "immediate precursor" is usually applied to precursors, which are only one reaction step away from the end product.

- Essential Chemical - An essential chemical is a raw material that takes part in a reaction and contributes to a minor portion of the end product's molecule. It is very widely used as a reagent, solvent or catalyst for chemical reactions. Certain essential chemicals may also be used as precursors.
- Reagent - A reagent is a chemical used to produce a reaction, generally with one or more precursors. It contributes to only a very small portion of the end product, if any. To produce a given reaction, numerous reagents may be substituted for one another.
- Solvent - A solvent is a liquid used to solubilize reagents and is used as a carrier during a reaction. It does not react and is not incorporated into the drug's molecular structure. It is also used to purify the end product.
- Catalyst - A catalyst is a substance that enables a reaction to take place more rapidly. It may increase the yield of the end product without, however, becoming part of the latter's composition. Catalysts are generally used in small quantities.
- At present, Tables I and II to 1988 Convention contain 23 precursor chemicals.
- Following details of each of these substances should be displayed during presentation with the help of slides:
  1. Physical appearance
  2. Legitimate use
  3. Illicit use
  4. Manufacturing countries
  5. Drug produced from 1 kg/1 litre of precursor
- The figures depicting use of precursor chemicals in the manufacture of illicit drugs may be displayed through slides during the presentation.
- The table showing as to how many street doses of drug can be produced from one kg or litre of the precursor chemical should also be displayed through slide during the course of presentation.
- Drug law enforcement officers should take a number of precautions while testing the subjects, with the help of field testing kits or otherwise handling these chemicals. For instance:
  1. They should not taste the substance;
  2. They should wear safety gloves and goggles;
  3. They should not smoke;
  4. They should keep the substances away from sources of ignition and heat;
  5. They should handle the substances at well ventilated places;
  6. They should wash hands before and after the handling of the substances.
- Different reagents are used for testing different precursors with the help of

field testing kits. UN test kit calls various tests as Test A, Test G, Test O, Test T, Test U, Test V, Test W, Test X and Text Y.

- During the presentation, these tests should be explained and demonstrated.
- In test kits other than UN test kits, these tests may be called by different names.