Summary Report on EU Drug Precursors Seizures 2008
Illicit drugs remain a major concern for European Citizens as they continue to be a serious threat to the security and health. Illicit drug producers need chemicals called "precursors" to manufacture drugs such as heroin, cocaine, ecstasy or amphetamines. In other words, there is no production of illicit drugs without drug precursors.

The drug precursors have wide legitimate uses (e.g. in the synthesis of plastics, pharmaceuticals, cosmetics, perfumes, detergents, or aromas), but can be diverted from the licit distribution channels for the illicit manufacturing of extremely dangerous drugs. Therefore, controlling drug precursors is essential to prevent the diversion and misuse of these substances.

By enforcing the EU drug precursor legislation\(^1\), the EU strives to ensure that diversion of drug precursors is prevented through control and monitoring of their legitimate trade. This involves not only close co-operation between the respective national competent authorities (notably Health, Police and Customs) but also close co-operation with the private sector and third countries.

The EU drug precursor legislation requires a systematic reporting from Member States on seizures and stopped shipments of drug precursors. This allows identifying the evolution of trends in drug precursors trafficking and diversion. Despite the efforts made, traffickers keep

finding new diversion patterns, and the diversion routes are changing rapidly.

This summary report provides a brief overview of the seizures and stopped shipments of drug precursors made by EU Member States in 2008, while implementing the EU legislation.

Walter Deffaa  Heinz Zourek
Director General  Director General
Directorate - General  Directorate - General
Taxation and Customs Union  Enterprise and Industry
<table>
<thead>
<tr>
<th>Main findings in 2008</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Graph</strong>: Quantities of the most sensitive drug precursors seized or</td>
<td>8</td>
</tr>
<tr>
<td>stopped</td>
<td></td>
</tr>
<tr>
<td><strong>Graph</strong>: Quantities of other drug precursors seized or stopped</td>
<td>8</td>
</tr>
<tr>
<td><strong>Graph</strong>: Number of seizures and stopped shipments of the most</td>
<td>9</td>
</tr>
<tr>
<td>sensitive drug precursors</td>
<td></td>
</tr>
<tr>
<td><strong>Graph</strong>: Number of seizures and stopped shipments of other drug</td>
<td>9</td>
</tr>
<tr>
<td>precursors</td>
<td></td>
</tr>
<tr>
<td><strong>Graph</strong>: Comparison of 2006-2007-2008 seizures and stopped shipments</td>
<td>10</td>
</tr>
<tr>
<td>of the most sensitive drug precursors</td>
<td></td>
</tr>
<tr>
<td><strong>Graph</strong>: Comparison of 2006-2007-2008 seizures and stopped shipments</td>
<td>10</td>
</tr>
<tr>
<td>of other drug precursors</td>
<td></td>
</tr>
<tr>
<td>Key precursors: Examples of trafficking methods</td>
<td>11</td>
</tr>
<tr>
<td>Production of heroin</td>
<td>14</td>
</tr>
<tr>
<td>Production of cocaine</td>
<td>15</td>
</tr>
<tr>
<td>Production of methamphetamine and amphetamine</td>
<td>16</td>
</tr>
</tbody>
</table>
MAIN FINDINGS IN 2008

In 2008 the EU Member States reported 473 cases of seizures and stopped shipments of drug precursors and recorded a tremendous increase in the overall quantity of drug precursors seized or stopped from 78,304 (kg/l) in 2007 to 270,754 (kg/l) in 2008.

- 44 cases of acetic anhydride (used in a wide range of chemical manufacturing processes, including medicinal products, but also the main heroin precursor) with nearly 241 tons seized or stopped, which is about 7 times higher than in 2007, and which represents more than 75% of the world's seizures. *(Quantity needed to obtain 1kg of heroin is 1 to 4 Litres.)*

- No cases reported in 2008 of 3, 4- Methylene dioxy-phenylpropan-2-one, also referred to as "PMK" (used in the production of perfume components, but also used in the illegal manufacture of ecstasy). In the previous years, the number of cases of PMK tended to decline and in 2008 it went down to nil. *(Quantity needed to obtain 1kg of MDMA is about 1.25 Litres.)*

- 2 cases of safrole (normally used in perfumery and food flavourings while illegally used in the manufacture of different forms of ecstasy). 1901 litres were stopped or seized in 2008. The quantities sharply increased in comparison to 2007 when 8.31 litres were seized or stopped. The increase for safrole could correlate with the decrease for PMK as they are both precursors for the illicit production of ecstasy.
The number of seizures and stopped shipments of **ephedrine and pseudo-ephedrine in raw and tablet form** (pharmaceutical preparations/medicines) decreased, but the 2008 figures show a continued risk of diversion and misuse of these substances.

2 cases of **phenylacetic acid** (normally used for synthesis of penicillin, perfume products and cleaning solutions, but also used in the illegal manufacture of amphetamine and methamphetamine). There was a considerable increase in quantity from 50 kg in 2007 to 153.25 kg. It appears that phenylacetic acid is increasingly used in the alternative production method of methamphetamine. *(Quantity needed to obtain 1kg of amphetamine or methamphetamine is about 4kg.)*

148 cases of **gamma-butyrolactone (GBL)** (widely used in industry as solvent in the production of paints, vitamins and medicines, but also a precursor of gamma-hydroxybutyric acid (GHB), a psychoactive compound misused for drug assisted sexual assaults). 2263 litres of GBL were seized or stopped.
The graphs on the following pages provide an illustration of quantities and numbers of seized or stopped substances in 2008. The final graphs provide a comparison of the findings over the last three years (2006-2007-2008).

For further information:

<table>
<thead>
<tr>
<th>Caroline Edery</th>
<th>Klaus Berend</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail: <a href="mailto:Caroline.Edery@ec.europa.eu">Caroline.Edery@ec.europa.eu</a></td>
<td>E-mail: <a href="mailto:Klaus.Berend@ec.europa.eu">Klaus.Berend@ec.europa.eu</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suzanne Stauffer</th>
<th>Claire Scharf-Kroener</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail: <a href="mailto:Suzanne.Stauffer@ec.europa.eu">Suzanne.Stauffer@ec.europa.eu</a></td>
<td>E-mail: <a href="mailto:Claire.Scharf-Kroener@ec.europa.eu">Claire.Scharf-Kroener@ec.europa.eu</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marketa Jackova</th>
<th>Anne Gautrais-Le Goff</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail: <a href="mailto:Marketa.Jackova@ec.europa.eu">Marketa.Jackova@ec.europa.eu</a></td>
<td>E-mail: <a href="mailto:Anne.Gautrais@ec.europa.eu">Anne.Gautrais@ec.europa.eu</a></td>
</tr>
</tbody>
</table>

Website:
Quantities of the most sensitive drug precursors seized or stopped

Quantities of other drug precursors seized or stopped
Number of seized and stopped shipments of the most sensitive drug precursors

Number of seized and stopped shipments of other drug precursors
Comparative 2006-2007-2008 seizures and stopped shipments of the most sensitive drug precursors

Comparative 2006-2007-2008 seizures and stopped shipments of other drug precursors
Examples of trafficking methods
The pictures on the following pages illustrate some interesting examples of trafficking methods used in 2008.

"Drug precursor trafficking via Road"

Source: Estonian Customs
"Drug precursor trafficking via Air"

Source: French Customs

Source: German Customs
"Drug precursor trafficking via Post"

Source: German Customs
Production of heroin

OPIUM

MORPHINE

HEROIN

HEROIN HYDROCHLORIDE

ACETIC ANHYDRIDE
Usually used for production of cellulose, dyes, plastics and medicines. Illicitly used as a key precursor for heroin production.

100 – 400L needed to prepare 100kg heroin hydrochloride

ACETONE ETHER

1500 – 2000L for 100kg heroin hydrochloride

HYDROCHLORIC ACID

30L for 100kg heroin hydrochloride
Production of cocaine

POTASSIUM PERMANGANATE
Largely used in the water/waste industry, leather industry, medicines. Illicitly used as an oxidizer in reaction with the plant coca to produce cocaine.
Production of methamphetamine and amphetamine

**NOREPHEDRINE**
(150kg for 100kg amphetamine sulphate or methamphetamine hydrochloride)

**1-PHENYL-2-PROPANONE**
(200L for 100kg amphetamine sulphate or methamphetamine hydrochloride)

**EPHEDRINE/PSEUDOEPHEDRINE**
(150kg for 100kg amphetamine sulphate or methamphetamine hydrochloride)

**EPHEDRINE/PSEUDOEPHEDRINE**
Usually, used in the production of cough medicines, illicitly used as key precursors for the preparation of methamphetamine.

**AMPHETAMINE**

**METHAMPHETAMINE**

**SULPHURIC ACID**

**AMPHETAMINE SULPHATE**

**METHAMPHETAMINE HYDROCHLORIDE**

**HYDROCHLORIC ACID**

**Thionyl chloride**
**Phosphorus pentachloride**
**Red phosphorus**
**Palladium chloride**
**Acetone**
**Ether**
**Chloroform**
**Hydriodic acid**