

# Illicit Alcohol

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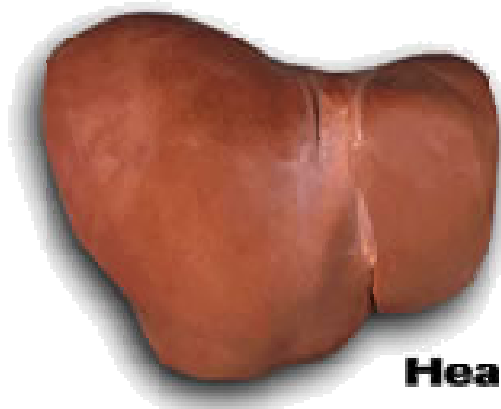
**Chemical and Veterinary Investigation  
Agency Karlsruhe, Germany**



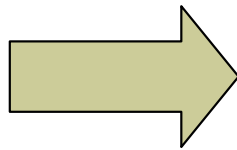
**Chemisches und Veterinär-  
Untersuchungsamt Karlsruhe**

## Hypotheses about illicit alcohol

- Industry position: Unrecorded alcohol is extremely toxic and poses a considerable health risk above the risk of ethanol alone
- Some European countries have anomalously high rates of death attributable to liver cirrhosis.
- The same countries have high levels of unrecorded alcohol consumption
- Ethanol may be in higher concentrations in unrecorded alcohol
- Combined effects of other compounds with ethanol



**Healthy**



**Cirrhosis**

# Results of AMPHORA



- 115 unrecorded alcohol samples from 17 European countries analyzed for alcohol quality
- Generally: most samples were OK, but:
- Ethanol: Higher concentrations than in recorded spirits (average alcoholic strength: 48.5% vol in 77 unrecorded spirits)
- Ethyl carbamate: 29 samples > 0.4 mg/l (25%); carcinogenic/liver toxic contaminant in unrecorded fruit spirits from Hungary, Poland, Germany, Spain, Czech Republic & Romania (also often found in legal fruit spirits)
- Metal contamination: copper: 19% above limit (2 mg/l); manganese: 15% above limit (0.5 mg/l)
- Other contaminants (e.g. acetaldehyde, methanol): only found in single cases above limits

## Conclusions for alcohol policy

- The higher ethanol content of unrecorded alcohol is most relevant, and could contribute to more pronounced effects such as liver cirrhosis
- Ethyl carbamate and metal contamination should be reduced
- Alcohol policy currently has no evidence-based concept for unrecorded alcohol
- Measures might range from legalizing unrecorded with subsequent quality control to instructing the producers of unrecorded how to avoid the problems detected
- Some successful past policy measures: e.g. prohibition of methanol to denature alcohol

**Thanks for your attention**



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