

## **Guidelines to the Trade on Reducing the Level of Ethyl Carbamate (EC) in Alcoholic Beverages during Storage and Transport**

### **Purpose**

The Guidelines provide recommendations to help the trade to minimize the level of ethyl carbamate in alcoholic beverages during storage and transport. The Guidelines are applicable to importers, distributors, wholesalers and retailers of alcoholic beverages, in particular wine and distilled spirit.

### **Background**

Ethyl carbamate (EC) is a contaminant naturally formed in fermented foods during the fermentation process or during storage. Variable levels of EC have been found in different fermented foods such as bread, soy sauce and yogurt, and in alcoholic beverages such as spirits, grape wine and beer.

Public health concerns regarding EC in foods are related to its carcinogenic potential. In 2007, the International Agency for Research on Cancer (IARC) reassessed EC and up-graded its classification from Group 2B (“possibly carcinogenic to humans”) to Group 2A (“probably carcinogenic to humans”).

The Joint Food and Agriculture Organization/World Health Organization Expert Committee on Food Additives (JECFA) evaluated EC in 2005 and concluded that intake of EC from foods excluding alcoholic beverages would be of low concern. However, dietary exposure to EC from both food and alcoholic beverage was of concern and measures to reduce concentrations of EC in some alcoholic beverages were recommended.

At present, there is no international standard for the maximum allowable level of EC in foods. However, some countries such as Canada, Korea and some member states of the European Union (e.g. France, Germany and Czech Republic) have established maximum levels of EC

