



**SARCO**

L'expertise analytique



# Phthalates & wine

*In 2013, new rules emerged for the exportation of wine and spirits, such as alcoholic beverages destined for China must now be analysed for phthalate content.*

## 1 THE PHTHALATES ISSUE

Phthalates are used as plasticizers during the manufacturing of plastics (PVC in particular) and have a broad field of application, including the food processing industry.

Several phthalates are classified as carcinogenic, mutagenic and/or reprotoxic. Phthalate use is regulated by the Union Guidelines on Regulation (EU) No 10/2011 for plastic materials and articles intended to come into contact with food.

This regulation defines the **Specific Migration Limits (SMLs\*)** for various compounds in foodstuffs. As there is not a specific regulation for alcoholic beverages, the SMLs are applied as a reference.

## 2 THE ANALYTICAL EXPERTISE

**Method:** GC/MS.

**Analysed matrix:** wine, spirits, materials in contact with wine (potential released quantities).

**Min volume:** 125 mL\*\*.

**Time required:** 3 working days.

\*\*avoid any plastic flasks and/or plastic corks.

Compounds	LD (mg/kg)	LQ (mg/kg)	SML* (mg/kg) Appendix 1 ; UE 10/2011
Benzyl-butyl-phthalate (BBP)	0.005	0.01	30
Dimethyl-phthalate (DMP)	0.005	0.01	< 0.01
Diethyl-phthalate (DEP)	0.005	0.01	< 0.01
Dibutyl-phthalate (DBP)	0.005	0.01	0.3
Diethyl-hexyl-phthalate (DEHP)	0.005	0.01	1.5
Di-isononyl-phthalate (DINP)	0.2	0.5	9 for $\Sigma$ DINP + DIDP
Di-isodecyl-phthalate (DIDP)	0.2	0.5	

SML\*: maximal authorized quantity of a substance given or released by a material or an object to foodstuffs or foodstuffs simulants, expressed in mg of substance by kg of foodstuff (mg / kg).