



25 June 2008

Sigg Switzerland AG
Walzmühlenstrasse 60
CH-8501 Frauenfeld

Your Reference:
14.05.2008 / AG

Our Reference:
2008L12297

Certificate for Sigg KBT Closures

You appointed us in the letter dated 14th May 2008 to analyse and to assess Sigg KBT closures with respect to current food legislation.

Product Data:

Sample: Sigg KBT closures, made of PP/TPE

Intended use: In accordance with your data the closures are used for aqueous, acidic and alcoholic filling goods

Analytic

Overall Migration

The global migration was analytically examined by us. For this the sample material was brought into contact with aqueous and nonaqueous solvents under test conditions which are suitable to simulate the influence of foodstuff. Test conditions were selected according Council Directive 85/572/EEC and Commission Directive 97/48/EC. Due to foreseen multiple use the overall migration was performed three times, whereas only the value of the third migration is reported. The bottles were filled with simulant, closed with the stopper and turned upside down.

Test on Heavy Metals

By using X-Ray fluorescence the closure were analysed for lead, cadmium and mercury.





Results of the Examinations

Overall Migration:

Simulants	Test Conditions (Time/Temperature)	Dry Residue of Migrates in mg/kg
Water	3 * 24h 40 °C	< 1
3 % Acetic Acid	3 * 24h 40 °C	< 1
50 % Ethanol	3 * 24h 40 °C	< 1

Test on Heavy Metals

Probe	Lead	Cadmium	Mercury
ABT Closure	< 25 mg/kg	< 25 mg/kg	< 25 mg/kg

Assessment

Overall Migration

Under the prescribed test conditions with aqueous and nonaqueous simulants there was no overall migration which exceeded the limit (60 mg/kg) according to Council of Europe resolution ResAP(2004)1. Furthermore the overall migration values fulfil the requirements of the US FDA limits of the CFR 21, § 175.300.

Heavy Metals

The findings are in compliance with the limits of the CH-Food Contact Regulation as well with CH-Chemical-Risk-Reduction-Regulation. Furthermore, the limit of 100 mg/kg as sum of tested heavy metals according to the Directive 94/62/EG as well as the US CONEG Regulation is not exceeded.

General Assessment

Due to the evaluation based on the submitted documents and analytical tests the present product used as intended fulfils the requirements of the Regulation (EC) 1935/2004 article 3. Under the normal and foreseeable use conditions the product specified above does thereafter not add components to food in quantities that are suitable to endanger human health or to cause an untenable change of the composition. The closures are also in compliance with the German requirements of § 31 of LFGB.

This report exclusively refers to the analysed samples. In the case of a change of the raw materials, the raw material composition of the product, the manufacturing process, the legal regulations or new toxicological realizations this evaluation loses its validity.



References:

- Commission Directive (85/572/EEC) of 19 December 1985
- Commission Directive 97/48/EC of 29 July 1997
- Commission Directive 94/62/EC of 20.12.1994
- CONEG, 1989 (Toxics in Packaging)
- Framework Resolution ResAP (2004) 1 on Coatings intended to come into contact with foodstuffs, adopted by the Committee of Ministers on 1st December 2004
- FDA 21 CFR Parts 170 to 199
- LFGB - Lebensmittel-, Bedarfsgegenstände- und Futtermittelgesetzbuch, Germany
- CH Regulation on Food Contact of 23.11.2005, version 12.12.2006
- CH-Chemical Risk Reduction Regulation (ChemRRV) of 18.05.2005, version 01.05.2007
- Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004

Dietikon, 25 June 2008

SQTS - SWISS QUALITY TESTING SERVICES

Dr. Thomas Gude
Head Food/Non-Food Division