

Packaging Safety of Ink Components

RadTech2016 Chicago, IL USA May 16, 2016 Stephen Klump Nestlé Corporate Packaging

When you pay attention to a threat, you worry...

... the worry is not proportional to the probability of the threat.

Reducing or mitigating the risk is **not adequate**;

To eliminate the **worry** the probability must be **brought down to zero**.

- D. Kahneman, Thinking Fast and Slow



The Public Worries about Chemicals in Food Packaging Inks

SIN List

SVHC

California Prop65

BPA

Phthalates

Etc etc.

April 13, 2016

SIN list update





ChemSec adds 18 new substances of very high concern to SIN List; update includes 2 UV-filters permitted in packaging inks; all substances already included in REACH Candidate List

In an article published on April 8, 2016 the non-profit organization *International Chemical Secretariat* (ChemSec) informs about the latest update of its SIN List. 18 new substances of very high concern (SVHCs, as identified under REACH) were added to the list. Among the substances are UV-filters 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327, CAS 3864-99-1) and 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350, CAS 36437-37-3). UV-327 and UV-350 were added to the Candidate List in December 2015 on the grounds of very persistent and very

FPF newsletter April 2016

Worrying gives rise to regulations that attempt to achieve zero.

REACH in the EU limits and/or bans some chemicals of concern

California Proposition 65 has components with no minimum allowable dose level

So. Nevada Health District (SNHD) has a regulation for Lead (Pb) 1000x <u>lower</u> than CONEG (0.1 ppm SNHD vs 100 ppm CONEG)

EU 10/2011 (aka PIM) with NIAS requirements



To address worries, we must manage risk...

- Food Safety / Toxicology

Nestlé must go beyond regulatory requirements to address all of these concerns!



Nestlé Requirements and Regulations

Nestlé requirements (i.e. Guidance Note on Packaging Inks address chemicals of concern and **build** on regulations

For Inks: Swiss Ordinance is currently the most comprehensive ink regulation.

Follow it, and **then** the Nestlé requirements.



To eliminate/minimize the worry about food packaging inks:

Nestlé believes all new components need a thorough safety evaluation

toxicological and analytical review

This includes new energy curable, digital printing, or other new ink components for food packaging applications.



Thorough safety evaluation includes:

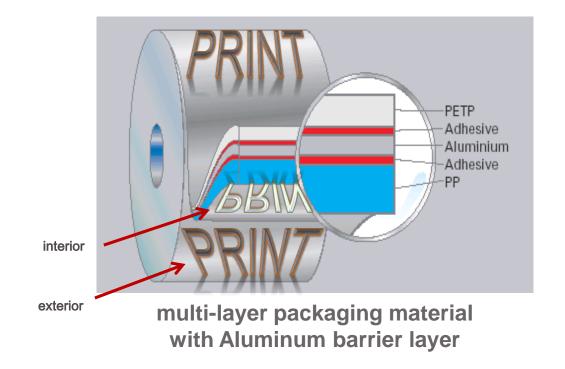
Regulatory review/approval (FDA FCN or Approval by EU country, plus NIAS assessment, other government scientific review/approval)

In addition, full transparency of chemical component identity i.e. sharing information with food packaging value chain (converters, ink makers, adhesive makers, base materials, food packers)

Why?



...Because ink components migrate via set-off contamination around packaging barrier materials to contaminate food.





Nestlé thinks that:

It is in the interest of all partners in the packaging value chain to have a full knowledge of the products they sell, including the raw and packaging materials they purchase.

In other words: Full transparency



Think like a Food Company





Change of Location and Contact Information



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Nestlé Guidance Note on Packaging Inks - version 02-2014

Purpose

This document refers to the Nestlé Packaging Safety and Compliance Program and specifically addresses inks used on Nestlé packaging materials. This document equally applies to printing inks, lacquers, decorative coatings and varnishes.

As a rule, only ink ingredients that are listed in the Swiss Ordinance on Materials and Articles can be used. In addition, this document lists some components, which are listed in the Swiss Ordinance¹, but are not to be used for Nestlé ink formulations.

This document must be shared with Nestlé vendors and upwards in the packaging value chain (ink makers, ink ingredient makers, coating and overprint vamish manufacturers).

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How were components on the lists selected?

These components have been excluded from food packaging because of:

· uncertain or adverse toxicity

· perceived risk by consumers, media, NGO, etc.

demonstrated migration potential

. negative sensory impact on the packed food or in points of sale

1 The Swiss Ordinance includes two parts:

- Part A which lists the substances that have been toxicologically evaluated and for which a Specific Migration Limit (SML) has been set.
- Part B which lists non-evaluated substances for which the default SML has been set at 0.01 mg/kg (10 ppb) of food or food simulant.

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