1. Food Safety Risks

2. Packaging Food Safety Risks

3. Nestlé Packaging Food Safety Approach
There are Consumer food concerns...

- Mycotoxins
- Pesticides
- Additives
- Preservatives
- Authenticity
- Heavy Metals

The Telegraph

Nestle pulls Maggi noodles off Indian shelves as lead scare spreads

India suffers its worst food scare in a decade as Nestle’s CEO tries to calm consumers
Which do not need additional help from packaging...

- Mineral oils in jute sacs (1991)
  - BADGE from metal coating (1996)
- SEM, ESBO from metal closures (2003)
  - ITX from UV-printing (2005)
    - BPA from PC and epoxy lacquers (2008-...)
- Benzophenone from printing inks (2009-...)
  - Mineral oils from printed/recycled paper (2010...)
- Odor issues – (many)
A packaging issue from the past…

ITX is a UV Photoinitiator used in inks.

Found by Italian Authorities in Nestlé infant formula

This occurred 10 years ago

But it is remembered as if it was yesterday…
The internet has a memory...

Isopropyl thioxanthone

Isopropyl thioxanthone (ITX) is used as a photoinitiator in printing.[1][2]

Recently, traces of isopropyl thioxanthone were found by Italian authorities in babies milk produced by Nestlé.[3]

https://en.wikipedia.org/wiki/Isopropylthioxanthone

Screenshot from September 2015
It takes **years** to build trust and fidelity in brands and products.

It takes **seconds** to destroy that trust.
1. Food Safety Risks

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Materials in contact with food items...

- **Materials in contact during processing**
  - Conveyor belts
  - Plastic moulds
  - Pipes
  - Hoses
  - Coated tanks
  - Gaskets

- **Packaging materials of finished or semi-finished products**
  - Polymers
  - Paper & board
  - Metals
  - Glass
  - Coatings
  - Packaging Inks
  - Adhesives

- **Auxiliary Items:**
  - Measuring spoons, ice cream sticks, straws, etc..

- **Fluid systems**
  - In beverage dispensing machines

- **Non-Food Products**
  - Accessories
  - Mugs
  - Plates
  - Pacifiers
  - Toys
  - Various Promotional Items
Chemical industry

- Monomers
- Antioxidants
- Colorants
- Pigments
- Solvents
- UV stabilisers
- Slip agents
- Resins

 RAW MATERIALS

- Paper and board
- Metal, Glass
- Adhesives
- Plastics
- Inks

Makes for a complex supply chain...

Converters

Retailers

Nestlé

Packaging Materials

Co-packer

Consumers
But when things go “viral”....

Chemical industry
- Monomers
- Antioxidants
- Colorants
- Pigments
- Solvents
- UV stabilisers
- Slip agents
- Resins

NGO’s
Media
Authorities

Consumers

RAW MATERIALS
- Paper and board
- Metal, Glass
- Adhesives

Converters

Packaging Materials

Co-packers

Retailers

Nestlé Packaging / S. Klump
When there is a problem, we find that:

• Suppliers do not always deliver what was promised...
• Damage is usually to the Nestlé brand(s)
• Consumer Perception is empowered by the internet
  • Information (right and wrong) at your fingertips...
  • Information lasts a long, long time....

Find out before someone else finds out for you....
To prevent issues we must manage risk...

- Food Safety / Toxicology
- Regulatory
- Consumer Perception

Nestlé must go beyond regulatory requirements to address all of these concerns!
1. Food Safety Risks

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Adherence to Government Regulations is mandatory

- Globally, food packaging has four big regulatory players
  - US FDA
  - Mercosur
  - China GB
  - EU

- Regulations help level the playing field
- Not completely overlapping requirements
To address regulations, Nestlé packaging CoC’s have two parts

CoC/DoC for Regulatory - certifies to:
  • Food application
  • Conditions of use
  • Governmental regulations

LoC for List of Components/Chemical Composition
  • Complete compositional information
  • CAS number level of detail
  • CONFIDENTIAL DOCUMENT
Ingredients for Food Products…

Are an integral part of the food label.
Ingredients for hand soap... is an integral part of the label.

Not required for food packaging materials.
Product Ingredients Panama

For information about ingredients in a country please go to the box on the right of this page.

For a full list of ingredients added to a product, click here

For information about the ingredients from the list below.

### Component

Select a Component

For a full list of ingredients used in all brands, click here

---

Product Ingredients Panama

Full list of ingredients in non-tobacco components used in Philip Morris International cigarettes manufactured for sale in Panama both in the domestic and duty free markets.

Lista completa de ingredientes de materiales distintos del tabaco utilizados en los cigarrillos de Philip Morris International, fabricados para su venta en Panamá tanto de los productos a la venta en el mercado doméstico como de los productos vendidos en el mercado libre de impuestos - mercado "duty free."

The following is a full list of the ingredients used in the side seam adhesives in all brands.

### Side Seam Adhesives

Adhesivo de la costura lateral del cigarrillo

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>maximal use level (% in the cigarette)</th>
<th>cas#</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene-vinyl acetate copolymer</td>
<td>0.2</td>
<td>24937-75-8</td>
</tr>
<tr>
<td>copolímero de etileno y acetato de vinilo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>polyvinyl acetate</td>
<td>0.2</td>
<td>9003-20-7</td>
</tr>
<tr>
<td>acetato de polivinilo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hydroxyethylene-vinyl acetate copolymer</td>
<td>0.1</td>
<td>25213-24-5</td>
</tr>
<tr>
<td>copolímero hidroxiétileno vinilacetato</td>
<td></td>
<td></td>
</tr>
<tr>
<td>polyvinyl</td>
<td>0.005</td>
<td>54626-01-4</td>
</tr>
<tr>
<td>polivinilo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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
Transparency Needed?

There will always be someone who says that they can do it cheaper...
Think like a Food Company
Thank you for your attention

QUESTIONS?