

Safe use of Liquid Laundry Detergent Capsules in Europe



Implementation of Regulation (EU) 1297/2014 and voluntary industry initiatives

Enforcement Forum, 5 November 2015
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Liquid Laundry Detergent Capsules



Product attributes

- >10 years on the market, but new in several countries
- Convenient for consumers (easy and correct dosing)
- Sustainability benefits : optimal use of resources & packaging
- Increasing demand for these products

Whilst liquid laundry detergent capsules are safe when used and stored as instructed, it is important to:



- **store them in a safe place** before and after use
- and always **keep them out of reach of children**



Accidental ingestion, mainly by young children:

- Occasionally when introduced in 2001, but incident frequency found higher as market grew (e.g. IT 5x more)
- Authorities alarmed in summer 2012 by media and PCCs

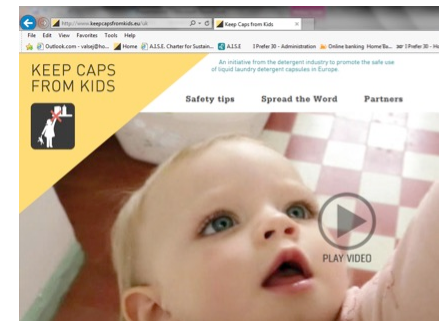
Skin or eye exposure when liquid laundry detergent capsules are pierced or squeezed with force

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- A large purple arrow points from the left towards the text box.
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- A vertical stack of four colored squares: teal, blue, lime green, and purple.
- **Voluntary: A.I.S.E. Product Stewardship Programme (end 2012)**
 - **Regulatory requirements under CLP as of June 2015**
 - **Voluntary: second A.I.S.E. Product Stewardship Programme (March 2015)**

A.I.S.E. Product Stewardship Programme launched end 2012



- **Scope: all liquid laundry detergent and laundry additive capsules (European market)**
- **Combination of measures focused on safe use and storage**
- **Commitments on 3 pillars (close to 100% compliance)**
 - Packaging improvements (limiting visibility and access)
 - Consumer information (on-pack, consumer education campaigns)
 - Engagement with PCCs (composition sharing, incident monitoring and accidentology about circumstances of incidents)
- **All major companies committed to the PSP since 2013**
 - 6 multinationals covering most of the market



A.I.S.E. Product Stewardship Programme launched March 2015



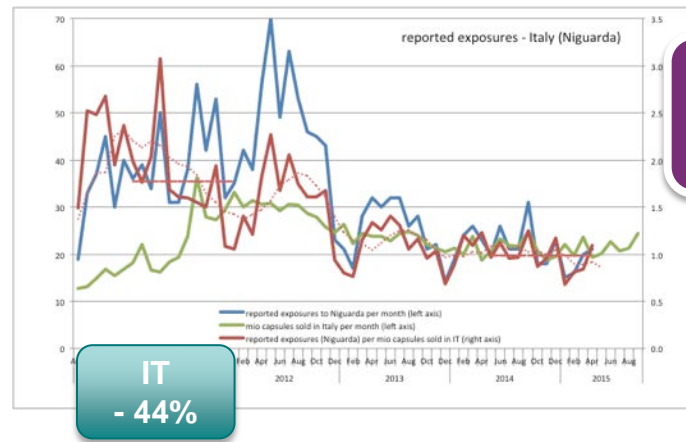
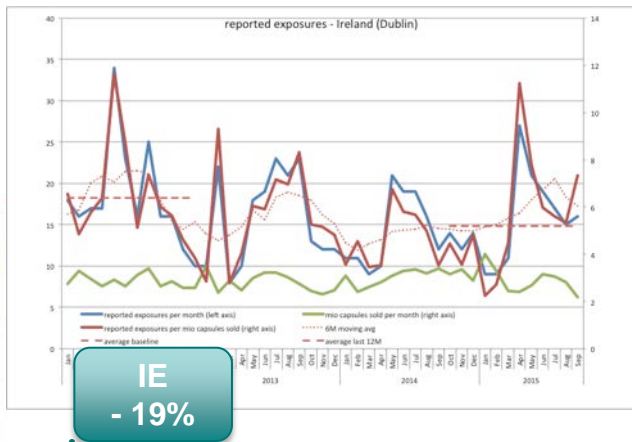
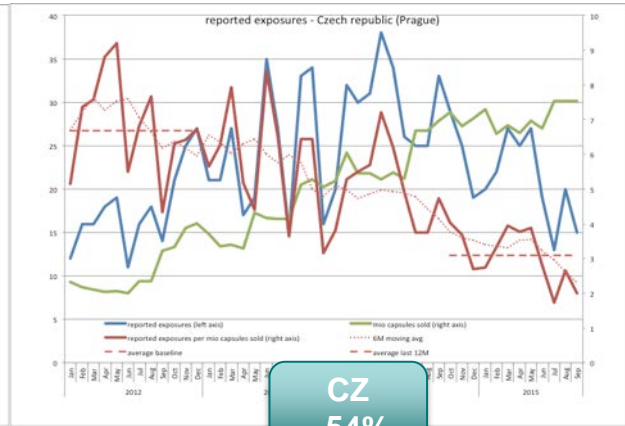
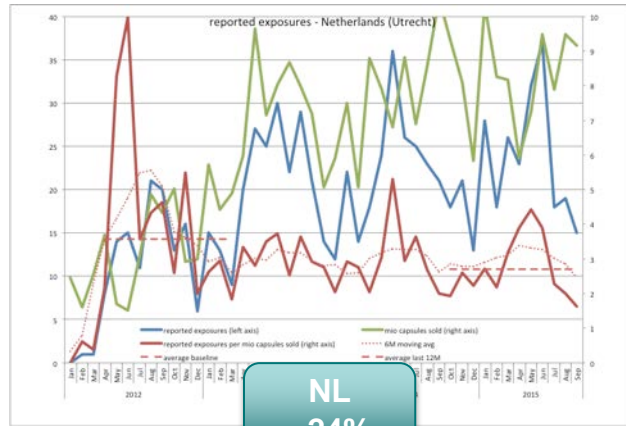
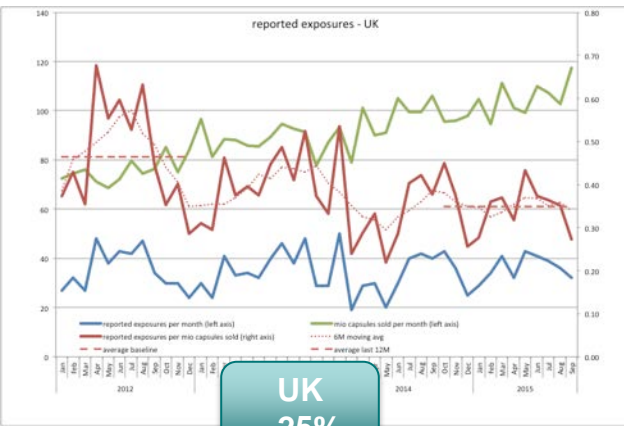
- **Scope: all liquid-containing detergent capsules (“LDC”), European market, “beyond CLP”**
 - liquid detergent capsules (not only laundry)
 - non-hazardous liquid laundry detergent capsules
- **2012 PSP safe use and storage measures expanded to other products + building on CLP measures**
- **Commitments on 4 pillars**
 - Packaging improvements (limiting visibility and access)
 - **Prevent Liquid Detergent Capsules from bursting when gripped by children (resistance to 300N compression)**
 - Consumer information (on-pack, consumer education campaigns)
 - Pursue PCC engagement (accidentology)
- **Phased implementation over 2015-2016**



Poison Control Centre Data: overall reduction of incidents (Nov 2015 update)



- Monthly data from 5 countries
- Nb of incidents normalised for market size (per million caps)
- Comparison on annual basis (avoid seasonality)



**On average
33% reduction**



Commission Regulation (EU) No 1297/2014

Overview



Type of measure	Requirement
Outer packaging	<ul style="list-style-type: none">• Impede capsule visibility: opaque or obscure• Self-standing, easily reclosable container• Impedes opening by children (coordinated action of both hands with a strength)
Labelling	<ul style="list-style-type: none">• P statement P102 visible, attention-grabbing format
Aversive agent (soluble packaging)	<ul style="list-style-type: none">• Safe aversive agent, elicit oral repulsion in max 6 s.
Pouch integrity (soluble packaging)	<ul style="list-style-type: none">• In water (20°C), retains detergent liquid for ≥ 30 s.• Mechanical resistance to compression strength of at least 300N



Transition period: until 31 December 2015 for products placed on the market before 1 June 2015

Outer Packaging – visibility of content

opaque or obscure

de facto equivalent to existing PSP



Outer Packaging – Child Impeding

Design criteria (CLP)

- **coordination of two hands + strength**

“Performance” criteria (CLP)

- **easy to reclose**
- **entire life span**



No existing performance standard for ‘child-impedingness’

- ISO 8317 CRC not required (if not needed because of classification)
- Further work by A.I.S.E. under consideration

Critical to get packaging re-design right the first time

- 2 years of R&D + manufacturing capability work for new packaging to reach shelves !



Outer Packaging – Labelling

P102 visible + attracting attention

- P102 in CLP label to be emphasised (e.g. **contrasting, bold, CAPS**)
- Repeat message on top or front of outer packaging, e.g. **Safe use patch**



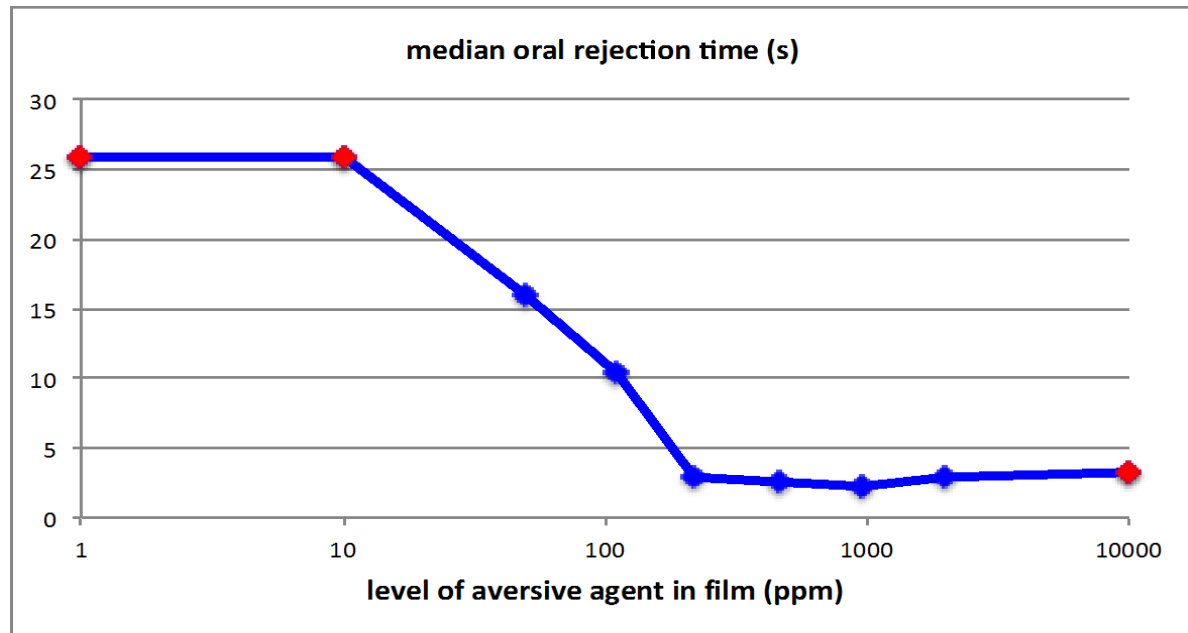
Capsule Film – Aversive Agent

Oral rejection in ≤ 6 seconds

Test protocol developed and evaluated

Proof of concept: PVA + denatonium benzoate

- 220 ppm and higher: median rejection = 2.7 s
- statistics: <6 seconds with >95% confidence



Capsule Film Integrity

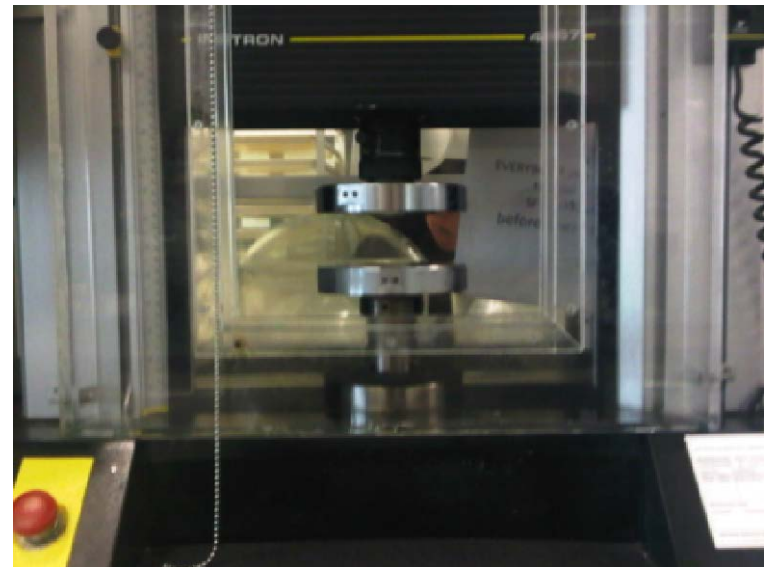
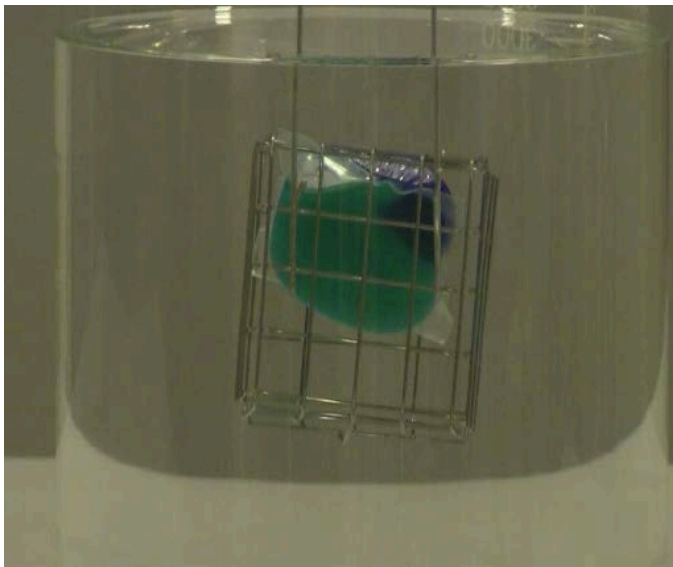
Retain content 30 seconds when placed in water at 20°C

Resist compression of 300N

**Containment:
submersion test protocol**

**Compression:
dynamometric test protocol**

Standard conditions (incl sample conditioning)



Capsule Film Integrity

Recommended criteria

(for design and for enforcement):

85% success with 90% confidence level

Experimental design: 2 valid options

- 'attribute' pass/fail testing
(statistically determined how many failures are allowed for a given number of samples tested: at design stage only)
- destructive testing
(determine distribution of actual containment time and compression strength)



'Accidentology' work with Poison Control Centers



Final report published on 2 November 2015

- PCCs + A.I.S.E.
- 6 months (4Q14- 1Q15) ; 5 countries (IRL, NL, DE, CZ, IT)
- Detailed follow-up on circumstances
- 401 cases (Laundry 82% + ADW 16%)

Project continues, managed by EU Commission ('LiquiCaps')



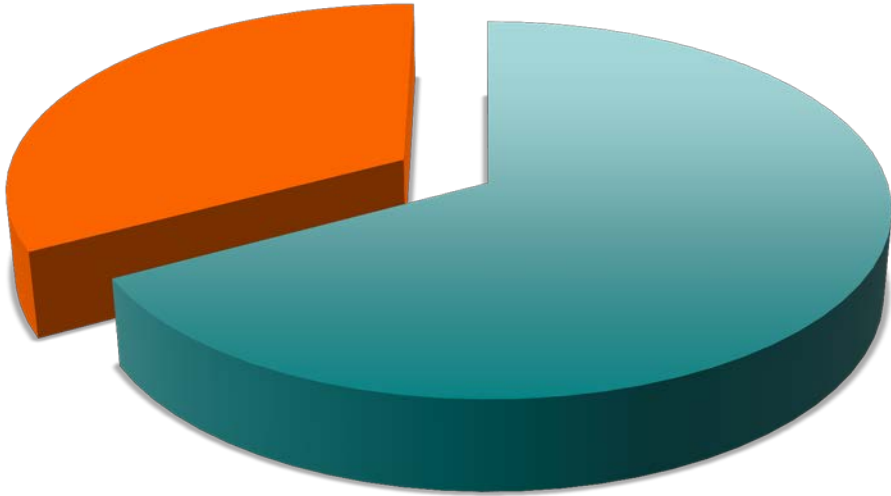
'Accidentology' – key findings

- **Children < 3 (12-24 months):**
Ingestion in 92%(oral stage) + some eye exposures (squeezing)
- **66% of incidents with capsules or packs directly accessible to children**
 - Capsule not in pack
 - Pack not safely stored
- **26% of cases: child opened the original packaging**
- **Not found to be determining factors**
 - Type of packaging (plastic pouch vs box)
 - Different colours
- **Laundry more often symptomatic, higher severity than ADW**
(but none of the 401 cases had severe symptoms)



Access to the capsule

(where relevant information is known)



- Two-thirds taken from container
- One-third already outside of container



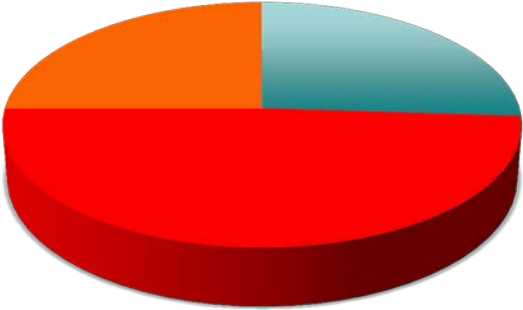
Access to the capsule

(where relevant information is known)



- Two-thirds taken from container
- One-third already outside of container

Storage



- Child-safe
- Not Child-safe
- Not Child-safe

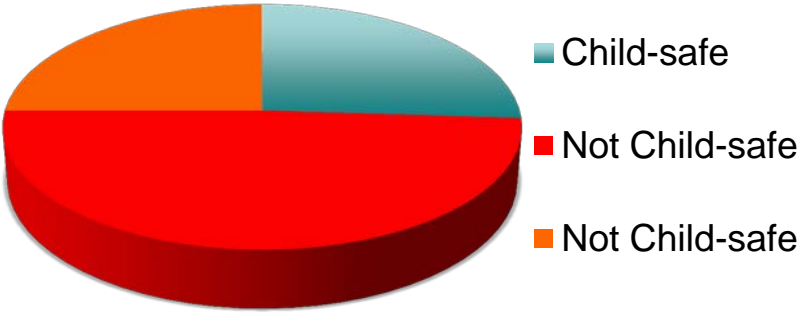
Access to the Capsule

(where relevant information is known)



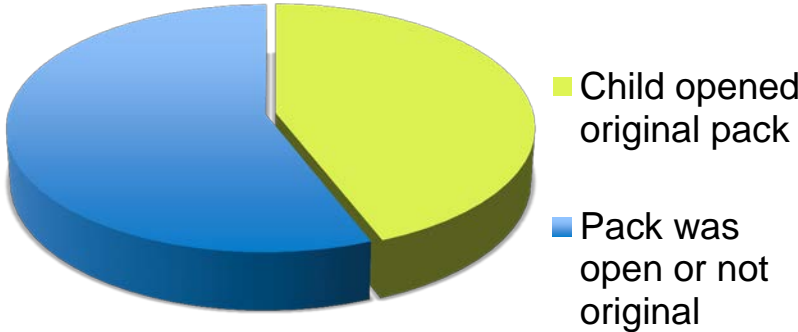
- Two-thirds taken from container
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Storage



- Child-safe
- Not Child-safe
- Not Child-safe

Pack



- Child opened original pack
- Pack was open or not original



- **Improve child-impeding properties of packaging**
- **Sustain consumer education**
- **Further investigate child-attractiveness factors**



Digital Education Campaign: Portal

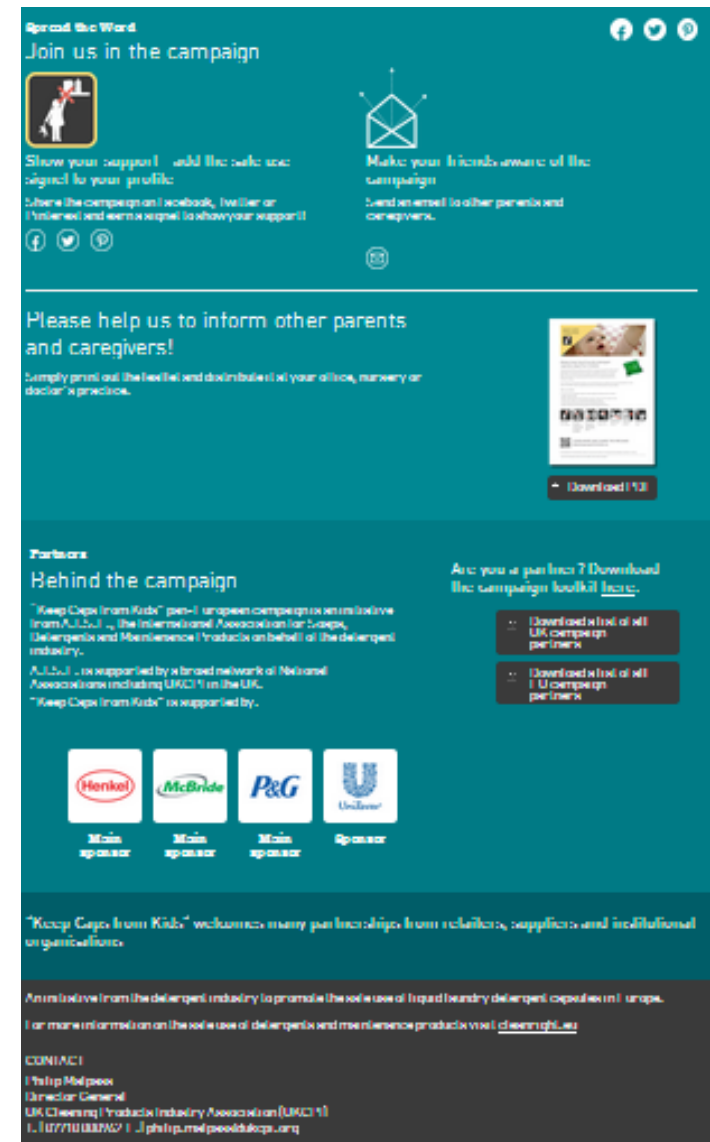
www.keepcapsfromkids.eu



Multi-lingual consumer WEBSITE

& « Cute Explorers » VIDEO

Twitter
@KCFK_Campaign



Mandatory Safe Use measures on brand communication channels



Examples of implementation in print, online (brand website) & on TV (mandatory disclaimer)



Lessive super concentrée

Elle vous permet d'effectuer encore plus de lavages qu'une bouteille de lessive liquide classique. Un simple bouchon suffit pour laver efficacement votre linge et libérer durablement son parfum. Utiliser OMO Petit&Puissant 1L c'est aussi faire un geste pour l'environnement* : moins d'emballage, moins d'eau pour le fabriquer et moins de camions pour le transporter !

Comment l'utiliser ?
Versez le contenu d'un bouchon plein directement dans le bac à lessive pour un résultat optimum.

*par rapport à une bouteille OMO 2L, 26 lavages

Capsules

Elles contiennent la dose exacte de lessive pour laver votre linge et le parfumer durablement. Leur film transparent se dissout dès le début du cycle de lavage. Ainsi, vous lavez efficacement votre linge sans risque de surdosage.

Comment l'utiliser ?
Placez une bulle active OMO directement dans le tambour de votre machine.

Pour utiliser et stocker vos capsules en toute sécurité, cliquez ici.

Toujours conserver hors de portée des enfants
www.cleanright.eu

Lessive en poudre OMO

Elle est idéale pour laver votre linge blanc grâce à ses agents de blanchiment. Elle convient également pour le linge coloré mais est déconseillée pour le linge délicat. Une dose de poudre libère toute l'efficacité nécessaire et parfume votre linge durablement.

Comment l'utiliser ?
Suivez les recommandations de dosage indiquées sur votre pack de poudre et versez directement la dose nécessaire de

ASTM F3159 Standard Safety Specification for Liquid Laundry Packets published 16 October 2015

<http://www.astm.org/Standards/F3159.htm>

- Reference to EU CLP measures incl. aversive agent + capsule integrity
- Packaging (opaque or equivalent), child-difficult closures (6 options)
- Special labelling/warning, prominent.

Tracking of quantitative reporting of accidental exposures with national PCC data

Dialogue on innovations that might reduce accidental exposures



Conclusions



- **Safe use of laundry detergent capsules is addressed by a mix of voluntary and regulatory measures**
- **A.I.S.E. has published guidelines to support sector-harmonised implementation of Regulation (EU) No 1297/2014**
- **More work is under way**
 - New A.I.S.E. PSP progress report (by end November)
 - 'LiquidCaps' Commission study
 - A.I.S.E. will look into closures
 - US developments
- **In addition to technical measures, consumer education is key to secure the safe use of this (relatively new) type of product**
- **The detergent industry is committed to promoting safe use with various measures**

