FRAGOL

MOCRINIS II

Fragol AG

- 50 year old family owned German company
- ISO 21469 certified H1 lubricant producer
- FRAGOL develop H1 lubricants for private label accounts
- Key areas
  - **H1 food safe lubricants**
  - **Vacuum and compressor fluids**
  - **Heat transfer fluids**
- Member of EHEDG sub-group lubricants
- Member of ELGI food grade lubricants working group
- Support CONCAWE MOCRINIS I

Current case studies MOSH & MOAH Paradigm in „food contact“ lubrication

Outline

- The basics of food grade lubricants
- The confusion
- Problems in the market
- Lubricants and food additives
- Differences EU and USA at company level.
- Commercial interests create confusion
- Oportuneties
- references

The basics

- **Globally the USDA nomenclature leads**
  - H1, H2, H3, 3H, HT1; GRAS ; HX
  - H1 lubricants for incidental food contact
    - Clear limitations for maximum contamination
    - HT1 heat transfer. Similar to H1
  - H2 no contact allowed- more confusion for users
  - H3 no contact allowed – rust protection
  - 3H food additives and specific applications like mould release
    - GRAS generally regarded as safe
    - HX component category for lubricants

The basics

- **H1 *registration* done by 2 NGO**
  - NSF(www.nsf.org)
  - INS (www.insservices.eu)
- **H1 is limited to the components and the quantity of components of the registred product.**
- **H1 products can have many chemistries, not limited to mineral oil.**

- **The maximum of a H1 mineral oil in the final food is 10 ppm 21CFR172.3570**
- **The maximum of a 3H product is individually described in the 21CFR172.878**

The basics

- **ISO 21469 is a cerification for food grade lubricants production.**
  - H1 is part of this certification (or components on the FDA list including gras).
  - Audits are part of this giving additional consumer securety.
- **The standard is not industry wide implemeted.**
- **Some countries (like Brasil) are moving toward demanding this for import.**

The confusion

- **Misunderstanding between certification and registration.**
  - NSF and INS *register* lubricants
  - This is based on by FDA approved components
- **ISO 21469 is a certification (as are Kosher and Halal)**
- **H1 is a lubricant (HT1 is a HTF).**
- **3H is a food additive.**
- **3H products can be a HX1 component to create a H1 lubricant.**
- **If a 3H product is used in a lubricant application it must comply with H1 and the maximum limits for H1 in the final food are to be considered.**

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foodwatch

Testergebnisse 2016

MINERALÖLE IN SCHOKOLADE UND CHIPS

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Stiftung Warentest
test.de

28.11.2012

Adventskalender mit Schokoladenfüllung: Mineralöl in der Schokolade

Türchen für Türchen mehr Vorfreude auf Weihnachten - von wegen: Die Stiftung Warentest hat Rückstände von Mineralölen und ähnlichen Substanzen in der Schokolade von 24 Adventskalendern für Kinder nachgewiesen. Einige der Mineralölbestandteile könnten krebserregend sein. Sie dürften vorrangig aus den Kartonverpackungen stammen, die aus recyceltem Altpapier hergestellt wurden. Eine der weiteren Mineralöl-Quellen: Maschinenöle aus der Produktionskette.

Schadstoffe in Pappkartons

Spaghetti al Petrolio

Behörden warnen vor Recyclingkartons für Lebensmittel. Enthaltene Mineralölreste verdampfen und verunreinigen Reis oder Nudeln. Strengere Regeln soll es nicht vor 2015 geben.

Öko / Konsum

Bild: / photocase.com

BERLIN taz | Nudeln oder Reis, die in Recyclingkartons verpackt werden, sind mit schädlichen Resten von Erdöl belastet. Davor warnt das Bundesinstitut für Risikobewertung (BfR). Durch strenge Grenzwerte in einer Mineralölverordnung will das

Problems in the market

- NGO create worries, panic and confusion.
- Tv consumer shows and news papers copy the information without (apparent) verification of the information.
- Information is copied to many countries and information is often repeated.
- Politicians and governemental organisations react with unfounded demands.

Problems in the market

- Food companies insist on MOSH and MOAH free lubricants.
- Super market chains follow with similar demands.
- Affected food stuff producers are following suit with comparable demands.
- A chain reaction in the food producing industry.
- Some lubricant companies claim their product is free of MOSH and MOAH.
- Some lubricant companies bring additional faulty information in the market.
- Mineral oil free lubricants will not lead to MOSH and MOAH free foodstuffs.
- Too little knowledge in the market regarding the topic.

Problems in the market

- Lubricants are unlikely the main source for MOSH and MOAH in food.
- H1 lubricants are for incidental food contact.
- When a leak occurs (incident) immediate repairs are required.
- If too much has leaked, the foodstuff must be disposed off.
- Proper integration of lubricants, lubricant use and consumption into the HACCP of a company will avoid negative exposure to the market.
- But… many other areas of ingress are possible, form agricultural applications to environmental exposure like environmental exposure.

Commercial interests

- Misleading marketing to generate sales by some lube (marketing) companies.
- Promotion of test methods by laboratories.
- Attract support for consumer interest by NGO´s.
- Fill programms on tv.
- Have attractive news in print, fill the pages.
- Have news flashes on the internet.
- Use MOSH and MOAH free product marketing to create commercial difference by retail chains.

Users of the products

- **Outside EU the FDA rules are followed.**
- **EU users follow the USA programms.**
- **H1 helps the EU producers to have a lubricant specific programm as guidance.**
- **H1 lubricants should not enter into the food stuffs on purpose.**
  - Proper administration of consumption and alert system as part of HACCP
- **There are differences for EU users:**
  - 3H needs to be above 11 cst @ 100 c for direct food contact
  - 3H can be at a lower viscosity for indirect applications
  - This is different in the USA system.

Opportunities

- Expand the current food grade lubricants to all agricultural applications.
- Educate NGO´s, governements, and other interest parties of the reality of MOSH and MOAH.
- Reduce confusion on MOSH and MOAH by bringing a clear unified message to the market.
- Have global standards for legislation.
- Focus on „incidental“ when addressing lubricants, not as ingredient.
- Educate all that come in contact with lubricants and food.

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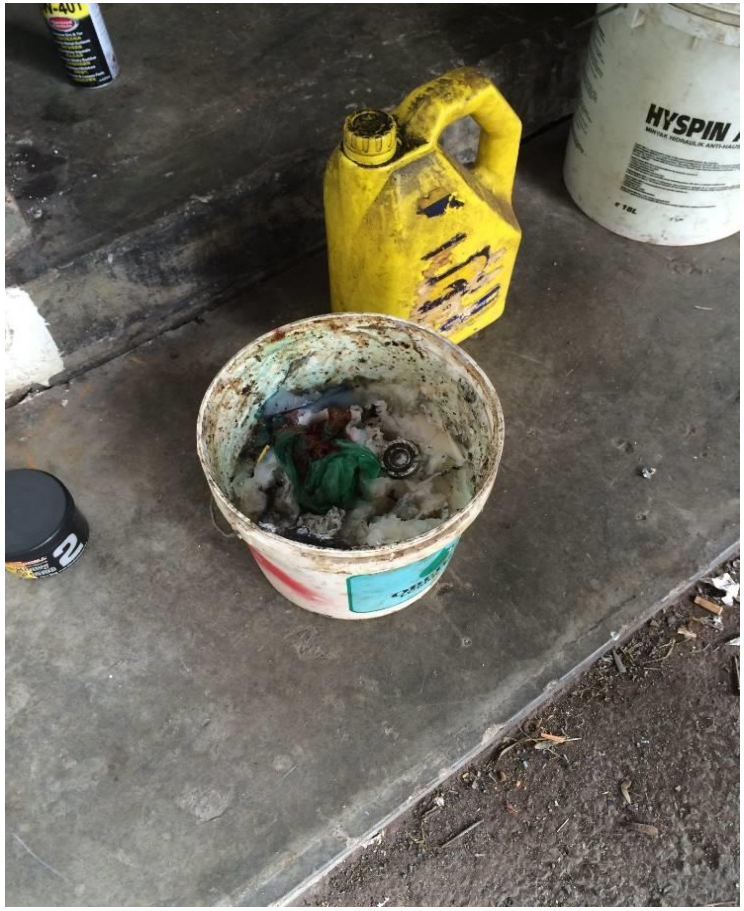

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- H1 http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?fr=172.3570
- GRAS Generally recognised as safe. http://www.fda.gov/Food/IngredientsPackagingLabeling/GRAS/default.htm
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