

H1 FOOD LUBRICANTS IN THE INDUSTRY

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In general, we can identify four main parties with an interest in the food producing industry:

1. Food producers
2. Equipment producers
3. Law makers
4. Lubricant producers

All parties involved have a common interest. They want to avoid negative attention from the general public while doing what they want to do in the food industry.

Food producers have a key interest in avoiding negative attention. We only have to switch on the television to realise the amount of Euros involved in marketing brand promotion. An incident will be very expensive and could lead to discontinuing a brand. It is obvious there is, or should be, great interest in the food producing industry to invest to avoid negative incidents such as lubricant contamination. The leading producers are all aware of the need to act responsibly and to have introduced various tools as part of their HACCP program such as GMP practices, ISO 22000 and of course H1 food safe lubricants in all areas of risk. Surprisingly there are still food producers who could improve their measures in avoiding risks to public health. Having a single pail of H1 lubricant on site for the health inspector to see is not considered a proper HACCP practice. When an incident happens, the law makers will prosecute

management in case of serious neglect and the penalties are very serious for the company but also for the responsible individual. Proper execution of HACCP will avoid such risks. Use of H1 lubricants is part of the execution of the plan.

H1 lubricants used to have a bad reputation from their early years. Today's H1 lubricants provide improved performance and are capable of meeting industry standards. Similar to industrial non H1 lubricants, performance levels can vary from different suppliers.

The equipment manufacturers have a key role and a key interest to design the most safe and efficient equipment. The industry organisation EHEDG is a great support in the increase of awareness towards this. The trend of new equipment designs often results in higher output, velocities and temperatures with direct implications for the lubricants used in food producing equipment. Often this results in

FOOD GRADE LUBRICANT SUPPLEMENT

smaller oil sumps that lead to higher stress on the lubricants used. The industry has a major role in educating equipment users on safe lubrication and support of the HACCP programs of the users. Current acceptable levels of contamination are hard to determine (10 ppm maximum, dependent on the chemistry). We need to work with all parties involved to achieve a work practice that is both safe for the final user of the foodstuff as well as workable for the equipment operator. It should fit into any proper HACCP plan without excessive cost or time for the equipment operator. Currently, the H1 food lubricants workgroup formed under the ELGI, European Lubricating Grease Institute, working with UEIL and NLGI has started to study a possible guideline for the user of the lubricant to incorporate into the work practice in the HACCP protocols.

Lawmakers have an interest in avoiding negative attention around food incidents. Recent years have shown the level of unrest that evolves when bacterial contamination or animal diseases occur that affect humans or animals. The public want to know why these happen and why nothing was done to prevent it. To reduce the risk of avoidable incidents is a key element in the policy maker's area of interest. The

European directive is a very strong document that puts the responsibility on the user of a lubricant and the consequences for an event with the management of the plant. The impression exists that law makers react strongly to incidents, resulting in ad-hoc rules or legislation that are often close to unworkable or lead to expensive implementation costs for the industry. It is in the industries interest to avoid such incidents.

The lubricant producers have a major role to play. Education of the user of the lubricant is a good starting point. Clear communication to the market explaining what a H1 lubricant for incidental food contact is should be at the top of the list. At the moment, many products are still put in the market as 'food lubricant' without any reference to H1 or HX1 components or production standard under HACCP. These products are misleading due to the unprotected name FOOD LUBRICANTS. It would be recommendable if the whole industry would adopt similar practice for the use of H1 similar to ISO 9001. With ISO 9001, it is common to reflect the result, which is the standard. The auditing body is of lesser importance. The auditing bodies for H1 lubricants (NSF and InS) however have found a way to promote their institute on every product label. This creates

confusion among customers seeking NSF or InS registration rather than H1 registration.

Not widely promoted in the market today is the ISO 21469 standard. Again, here we as an industry should clearly communicate what the standard is and what the benefit for the actual user is when selecting products made against this hygiene standard. Today very few producers have opted for obtaining the ISO 21469 standard for possibly a number of reasons. Confusion on how to obtain this and fears of high cost could be some of the drivers. The result is a more confusing message to the market. ISO 21469 is, in simple terms, an HACCP approach for H1 food lubricant production. ISO standards can be audited by many bodies so here again, we should communicate the standard uniformly with the goal to inform the customer clearly. More programs related to the food industry are initiated. One can wonder if there is great benefit to work on new programs when the current ones are not yet fully integrated into the industry. All these programs have as a goal to avoid a major incident, but effectively increase the cost per litre and as such are contradictory in providing the food industry with cost effective lubricants.

Another area of concern is the H2 standard.

The advertisement features a large yellow background. On the left, there is a stylized graphic of a drop of oil, with a blue gear partially submerged in it. The drop is filled with a gradient from yellow to orange. The gear is blue with white teeth. In the top right corner, the word "FRAGOL" is written in a bold, black, sans-serif font. Below it, the text "Private Label H1-Lubricants" is written in a large, bold, black, sans-serif font. In the bottom left corner, the website address "www.H1-Lubricants.com" is written in a smaller, black, sans-serif font. The main body of text is in a black, sans-serif font, providing information about FRAGOL's services and products.

FRAGOL

**Private Label
H1-Lubricants**

FRAGOL is your knowledge-center for lubricant design. We offer a full range of Lubricants and Greases, made in Germany under ISO 21 469 and certified H1, kosher and halal.

Two of our highlights are **Long Life Compressor Lubricants** and **High Temperature Chain Oils**.

We provide latest technology products, technical support and after sales service.

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This is registered at the same bodies that register for H1 (InS and NSF). H2 lubricants are 'not for food contact' and do not fit in any HACCP program where incidental food contact may occur. The H2 registration is often misused, as it reflects that these products are suitable for use in the food plant, which is incorrect. It might be more transparent if the category is discontinued. Again, here the lubricant industry can contribute by withdrawing these products from registration as they do not serve a clear purpose. Other conflicting registrations are 3H and H3. The first is suitable for direct contact with food (as in mould release agents). The H3 however does not allow direct contact with food.

Regarding the H1 lubricants for incidental food contact, producers need to increase their activities in a number of areas:

- Increase awareness of the H1 status rather than 'food lubricants'
- Get a truly global accepted status for H1 lubricants: GHS (less national legislation)
- Eliminate H2 status or introduce other standard for H2 lubricants
- Communicate what ISO 21469 is all about
- Train and support users with their HACCP plans in conjunction with lubricant consumption
- Introduce next generation H1 lubricants to meet new and more stringent demands of equipment builders and operating conditions
- Educate lawmakers in seeking solutions in available legislation, rather than creating new guidelines that result in more chaos and expense
- Work together with the key players, law makers, equipment producers, equipment users and lubricant producers, to create proper procedures, performance standards, work practices and a clear communication to the market

Conclusion

H1 lubricants are going to be with us for a long time. Good quality H1 lubricants will meet current and future demands on safety as well as the technical expectation by the equipment designer. The many limitations to the lubricants due to FDA component listing will increasingly demand the specialist approach of the 'lubricant designer' where small volumes are the norm in this industry. I believe that the true specialist will be able to meet the future demand in H1 lubrication, supporting the food producers to even safer standards.

The party that benefits most has not been mentioned in this article, i.e. the person or animal that consumes the products that were produced in a safe and efficient way. If the products reach the user and can be consumed unnoticed, due to lack of incidents, we have achieved exactly what we wanted to achieve as an industry.

BIOGRAPHY

Andre Adam is currently the Global Sales Director at FRAGOL GmbH+Co. KG, a German based Specialty Lubricants producer. Originally graduating as a Marine Engineer, he has more than 30 years' experience in the lubricant industry with position at Castrol, Petro-Canada and Anderol. As current Chairperson of the H1 Global Food lubricants workgroup under the ELGI, he continues to promote the interests of the lubricant industry in the food segment. Fragol produces and markets a complete portfolio of H1 lubricants produced under IS 9001, ISO 21469, Halal and Kosher. Fragol is a member of the EHEDG.