

# How to make your food, beverage or pharmaceutical facility successful



- Many organizations have made it their corporate policy to use H1 lubricants as a safety precaution.
- The real cost benefit of a good lubrication program impacts the three biggest areas of the budget: energy consumption, components (spare parts inventory) and labour.

Food-grade, food-plant, NSF certified, BRC certified, ISO 21469 – the list of lubricant terms seems to go on and on – and trying to sift through the terminology, standards and best practices for properly lubricating machines can be overwhelming for facility managers. However, correctly lubricating equipment is essential to any operation's success and choosing and implementing the right lubrication program will ensure that a plant operates more safely and efficiently, in addition to making it more profitable.

## The low-down on lubricants for the food beverage and pharmaceutical industries

The first thing maintenance managers need to understand when evaluating industrial versus food-grade lubricants is how they are similar and how they are different. Products designed for use in food, beverage and pharmaceutical facilities must do all the things that a conventional industrial lubricant does (i.e. meet general technical requirements that include the ability to reduce friction and wear, protect against corrosion, dissipate heat and have a sealing effect), in addition, they must comply with food regulations and be physiologically inert, tasteless, odourless and be approved by various international standards.

Products for the food, beverage and pharmaceutical industry are often referred to as food-grade, but it is important to note that only H1 lubricants are truly "food-grade". Lubricants for the food, beverage and pharmaceutical industry are reviewed by NSF (National Sanitation Foundation) an independent third party organisation that offers H1 product registration for non-food compounds such as lubricants.



*Bottling is one such application for H1 lubricants; others are handling, canning, blending, chilling, cooking, cutting, slicing and peeling.*

H1 lubricants are suitable for incidental, and technically unavoidable contact with a food product. These lubricants may be safely used on machinery components such as: pumps, mixers, gearboxes, chain drives and conveyor belts.



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## Refuse to Compromise on Performance

It is a common misconception that one must sacrifice performance in order to meet H1 standards.

This may have been true in the past, but today that is simply not the case. Advances in the industry now allow H1 lubricants to deliver the same or better performance than conventional industrial oils. For example, the **Klübersynth® UH1 6 Series** is a H1 lubricant that offers superior performance in the areas of efficiency, operational reliability, and extended life. In some cases, gearbox manufacturers actually use this product for their first-fill even when the box is not intended for use in a food, beverage or pharmaceutical facility.

## Requirements and Regulations

Are all food and beverage companies required to use H1? Surprisingly, the answer is no. Only certain facilities are regulated by governmental agencies to use these products, however the use of H1 products has become an unofficial industry standard and many organizations have made it their corporate policy to use H1 lubricants as a safety precaution. By using only H1 products across the board, companies can further minimize their risk in the event that lubricant is misapplied in the plant, components may fail, but this is certainly more palatable than facing product contamination and/or recall. It is important to remember however that even H1 lubricants have a safety threshold they cannot exceed: 10 ppm (parts per million) is the upper limit to be considered harmless if consumed.

Lubricants suitable for food, beverage and pharmaceutical applications as well as being registered as H1 by NSF International may also be certified to ISO 21469 standards. This standard is the next step in lubricant manufacturer regulations, with this comprehensive certification program not only are the ingredients in the lubricant and its intended use reviewed and regulated, under this program the hygiene requirements during formulation, manufacture and handing of lubricants which may come into contact with products during manufacturing/processing are also assessed.



*In a dynamic industry such as food and beverage, it's important that facility managers stay on the cutting edge of regulatory changes, product developments and more.*

## Standards of Success

To help clear up confusion and deliver new information, some lubricant manufacturers have developed training seminars for OEMs and end users. Klüber Lubrication educates its customers on an individual basis through KlüberEfficiencySupport, this integrated program provides lubricants, service and support that can help deliver measurable energy savings, increase plant efficiencies, reduce operating costs and support existing continuous improvement initiatives.

Beyond training, however, your lubricant supplier should be able to provide cost benefit analysis, documentation of H1 registration, and additional services that help you keep your facility running as efficiently as possible. An internal auditing system that measures your current lubricant consumption, re-lubrication intervals and the associated costs of your lubricant program is the first step in creating a lubrication system that will work for your facility. Take advantage of the technical and operational expertise available from Klüber Lubrication.

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Innovative tribological solutions are our passion. Through personal contact and consultation, we help our customers to be successful worldwide, in all industries and markets. With our ambitious technical concepts and experienced, competent staff we have been fulfilling increasingly demanding requirements by manufacturing efficient high-performance lubricants for more than 80 years.

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## Increasing Profits

Although lubrication is an integral part of component reliability, many facility managers don't bother to invest a lot of time or money in their lubrication program, because it's only usually around one percent of a facility's operating budget.

The real cost benefit of a lubricant however, which facility managers don't see shows up in other areas - a good lubrication program impacts the three biggest pieces of the budget pie: energy consumption, components (spare parts inventory) and labour. By using the right lubricant, which extends re-lube intervals, a facility manager can save on maintenance personnel's time, because they don't have to lubricate the machines as often, money is also saved when it comes to spare parts inventory, because components last longer, and finally energy usage is reduced as efficiency increases.

By learning more about food-grade lubricants and the lubrication industry's regulatory bodies and standards, facility managers will have a better idea about what lubricant to select, the safety practices that should be put into place and the best lubricant practices to follow, in order to save money and energy. Moreover, adopting an "all-H1" lubrication program throughout the plant will help limit the risk of contamination problems, while delivering the same or better performance than conventional industrial oils.



## About the company

Klüber Lubrication is a manufacturer of specialty lubricants. For more information about food-grade lubricants and best practices, visit [www.klueber.com](http://www.klueber.com)

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