

'Providing Tribological Solutions'

VSG® 'THE GREEN GREASE'
Technical Note: Food Grade Greases

Introduction: While it might seem a good idea to use a food grade grease to help protect the environment, it is actually not so good for wicket gate applications.

The reasons are that while the characteristics of such greases might be okay for food processing equipment, they are not what is needed for wicket gates. In addition, there are many classifications of food grade with the most common being H1. This is for food-processing environments where there is the possibility of just incidental food contact. It does not mean edible. The certification also does not involve testing but a review of the ingredients. Because of the limitations on the ingredients, food grade products tend to have poorer wear protecting characteristics. In addition, aluminum complex thickeners are often used because they do not have some of the issues of lithium greases for food contact. Also, the base oil in many H1 food grade products is a so called "white oil". These are not white but are in fact clear and look more like water. These are generally highly refined mineral oil to remove most impurities and while not toxic if a little is ingested, they have other consequences. They are still petroleum and have the associated environmental issues. Synthesized hydrocarbons or PAO oils can be similar in this regard.

VSG® Base Oil: The base oil in VSG is canola oil. The actual oil was food grade but because it is not shipped or handled as a food grade oil, this cannot be claimed. However, as a veggie oil, it is both sustainable and is readily biodegradable. Both are pluses compared to most H1 food grade greases.

VSG® Thickener: The thickener in VSG grease is a calcium sulphonate. This has a number of advantages including inherent wear and corrosion preventing characteristics. Consequently, such additives are not required. It also tends to have a high dropping point, good resistance to water washout, good mechanical stability and good resistance to oil separation. All key features which are generally better than for many H1 greases.

Environmental, Toxicity and Bioaccumulation: Being basically a mineral oil H1 food grade products are usually not readily biodegradable, and the mineral oil can have toxic effects in the environment. The bioaccumulation is also more typical of mineral oils and not as good as VGS. Also, for VSG actual toxicity testing was done on the finished product and not just a review of the manufacturing ingredients. In addition, some food grade greases have antibacterial additives. While good for food grade equipment, this will have adverse effects on biodegradability and results in worse aquatic toxicity results.

Performance: VSG meets or exceeds the performance requirements given in user specifications for wicket gates. H1 food grade greases generally do not.

***Contact us for a complimentary comparison with your current grease.
Nothing to lose, only gains.***