



human energy®

Pricing Support Deck

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Factors Affecting Finished Lubricant Cost

To understand the reasons for the rise in cost of finished lubricants, it's first important to understand the components that make up a finished lubricant product.

A finished lubricant product is made up of the following raw materials and components:



BASE OILS

"Basic lubricant building block."

Factors Affecting Cost of Bases Oils

- Crude oil prices which determine the feedstock costs for base oils
- Competition for feedstock availability for other uses
- Supply/demand balance or capacity versus consumption



ADDITIVES

"Used to enhance the performance of an oil"

Factors Affecting Cost of Additives

- Crude oil prices, as many additives are derivatives of petrochemicals
- Base oil prices, as most additives contain base oil
- Supply/demand balance or capacity versus consumption



PACKAGING

"Ensures safe handling and consumer convenience"

Factors Affecting Cost of Packaging

- Crude oil prices, as plastics are derivatives of petrochemicals
- Steel costs driven by ore costs and milling capacity
- Supply/demand balance or capacity versus consumption



OTHER COMPONENTS

- Import Duties
- Freight Cost
- Manufacturing Cost



Single Biggest Finished Lubricant Cost Driver

Base Oil

- The biggest component affecting the price of a finished lubricant is the cost of base oil.
- Base oil makes up 80-99% of the total finished lubricant by volume.
- Base oil is also used in the manufacture of lubricant additives and quite often an increase in the cost of base oil will also lead to an increase in the cost of additives.
- Base oil postings have increased up to +0.60/gal since July 2023



What is Driving Feedstock Prices?

Feedstock costs:

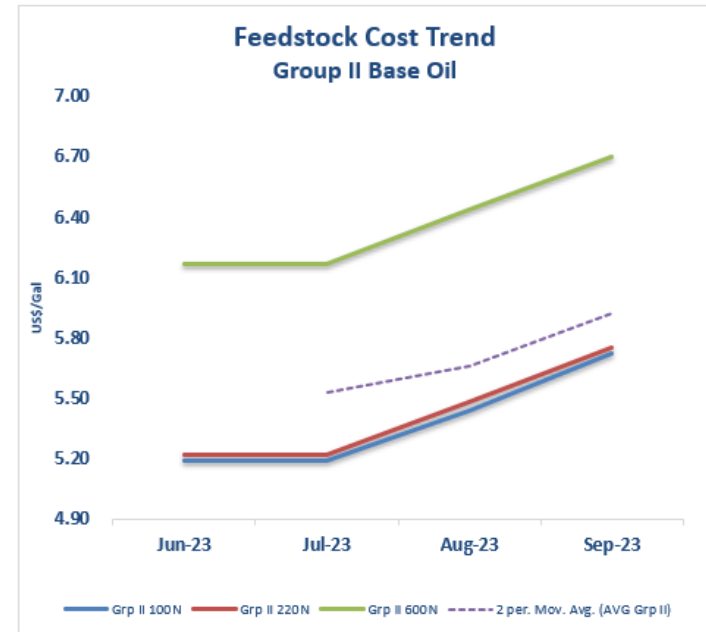
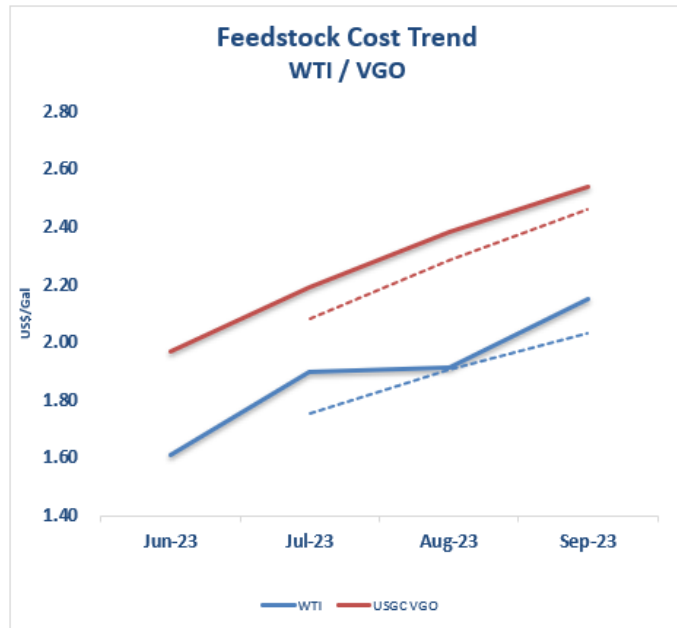
- “Steep crude oil and feedstock prices were the main factors that triggered base oil posted price increases in August and September.” ([Lubes’n’Greases – U.S. Base Oil Price Report – October 11, 2023](#))
- “Higher diesel prices have offered an incentive for refiners to produce more distillates in detriment to base oil output, and this has led to a tightening of certain grades.” ([Lubes’n’Greases – U.S. Base Oil Price Report – October 4, 2023](#))
- “Mounting cost pressures—not only from climbing base oil prices, but also from steeper additives, packaging, and freight values—made it necessary for lubricant manufacturers to transfer the increases down the supply chain.” ([Lubes’n’Greases – U.S. Base Oil Price Report – October 4, 2023](#))
- “Tensions in the Middle East could trigger additional market volatility and add further geopolitical risk premium on oil prices.” ([Lubes’n’Greases – U.S. Base Oil Price Report – October 11, 2023](#))

Supply & Demand:

- “Some refiners have been prioritizing the production of distillates over that of base oils as margins have been more attractive and diesel supply has tightened significantly.” ([Lubes’n’Greases– U.S. Base Oil Price Report – October 11, 2023](#))
- “The Group II segment was described as having balanced-to-tight supply and demand fundamentals, depending on the grade” ([Lubes’n’Greases – U.S. Base Oil Price Report – October 2 and 11, 2023](#))
- “Export demand expected to pickup due to a large production facility in Brazil beginning an extensive turn around this month, prompting buyers to look for other sources” ([Lubes’n’Greases– U.S. Base Oil Price Report – October 11, 2023](#))
- “A 45-day turnaround at a large Group I plant started last month, tightening Group I base oil supplies.” ([Lubes’n’Greases– U.S. Base Oil Price Report – October 11, 2023](#))



Feedstock Price Trends



- WTI crude increased by 34% since June 2023 and by 19% YTD.
- VGO rose by 29% since June 2023 and by 23% YTD.
- USGC G2 average postings (Motiva, Excel Paralubes and Chevron)
- Continued higher trend in Group II base oil cost (up 45 – 60 cpg since June) driven by higher crude oil/feedstock prices, squeezed margins, and tighter base oil supply
- High costs of manufacturing, transportation, labor, and energy were additional factors thought to be driving the increases.

