

PRICES AT A GLANCE

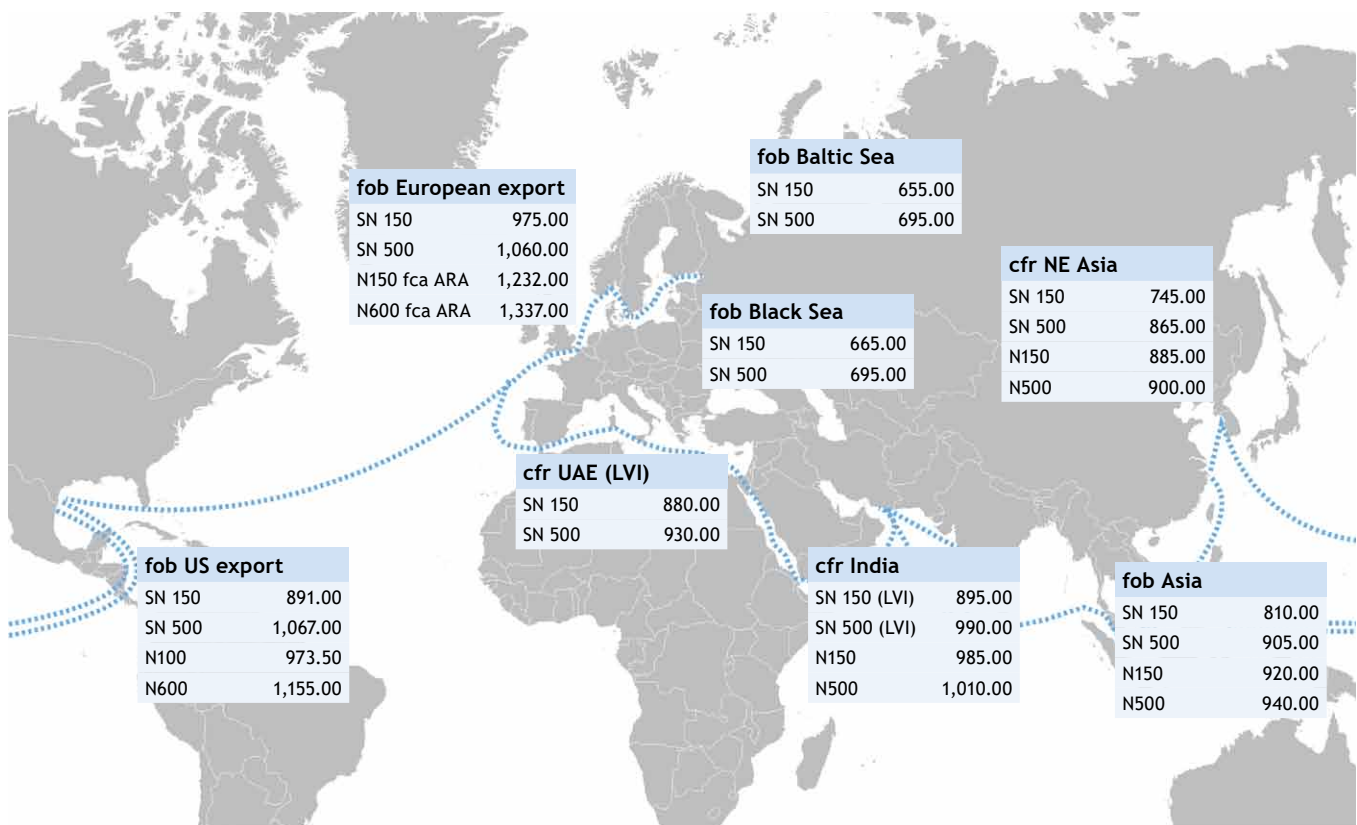
Asia-Pacific				\$/t
	Low	Mid	High	±
Group I				
SN 150 ex-tank Singapore	840	860.00	880	+5.00
SN 500 ex-tank Singapore	985	1,005.00	1,025	+10.00
Bright stock ex-tank Singapore	1,215	1,235.00	1,255	nc
SN 150 fob Asia	800	810.00	820	+5.00
SN 500 fob Asia	885	905.00	925	+5.00
Bright stock fob Asia	1,010	1,030.00	1,050	nc
Group II				
N150 ex-tank Singapore	1,010	1,030.00	1,050	nc
N500 ex-tank Singapore	1,050	1,070.00	1,090	nc
N150 fob Asia	900	920.00	940	+5.00
N500 fob Asia	920	940.00	960	+5.00
Group III				
4cst fob Asia	1,260	1,280.00	1,300	nc
6cst fob Asia	1,240	1,260.00	1,280	nc
8cst fob Asia	940	960.00	980	nc
Northeast Asia				
	Low	Mid	High	±
Group I				
SN 150 cfr	725	745.00	765	nc
SN 500 cfr	845	865.00	885	nc
Bright stock cfr	1,075	1,095.00	1,115	+5.00
Group II				
N150 cfr	865	885.00	905	-10.00
N500 cfr	880	900.00	920	nc
India and UAE				
	Low	Mid	High	±
Group I				
SN 150 (LVI) cfr India	875	895.00	915	nc
SN 500 (LVI) cfr India	970	990.00	1,010	nc
Bright stock cfr India	1,060	1,080.00	1,100	nc
SN 150 (LVI) cfr UAE	860	880.00	900	nc
SN 500 (LVI) cfr UAE	910	930.00	950	nc
Group II				
N70 cfr India	1,005	1,025.00	1,045	nc
N150 cfr India	965	985.00	1,005	nc
N500 cfr India	990	1,010.00	1,030	nc
Group III				
4cst ex-tank UAE	1,285	1,305.00	1,325	-10.00
Russia and FSU				
	Low	Mid	High	±
Group I				
SN 150 fob Baltic Sea	635	655.00	675	nc
SN 500 fob Baltic Sea	675	695.00	715	nc
SN 150 fob Black Sea	645	665.00	685	nc
SN 500 fob Black Sea	675	695.00	715	nc

OVERVIEW

Global base oil spot prices are mostly steady to higher for Group I and Group II supplies with limited spot availability. Fluctuating crude and competing fuel values are stunting spot discussions across regions as buyers hold off securing additional volumes. Group III prices extended their falls with a global supply overhang.

Europe				€/t	\$/t
	Low	Mid	High	±	
Group I					
SN 150 fob domestic NWE		1,065	1,085.00	1,105	nc
SN 500 fob domestic NWE		1,150	1,170.00	1,190	nc
Bright stock fob domestic NWE		1,380	1,400.00	1,420	nc
SN 150 fob European export		955	975.00	995	nc
SN 500 fob European export		1,040	1,060.00	1,080	nc
Bright stock fob European export		1,250	1,270.00	1,290	nc
Group II					
N100 fca ARA	1,130	1,150.00	1,170	+10.00	1,190 1,211.00 1,232 +5.00
N150 fca ARA	1,150	1,170.00	1,190	+5.00	1,211 1,232.00 1,253 nc
N220 fca ARA	1,120	1,140.00	1,160	+20.00	1,179 1,200.50 1,222 +16.00
N600 fca ARA	1,250	1,270.00	1,290	+10.00	1,316 1,337.00 1,358 +4.50
Group III					
4cst fca NWE	1,610	1,640.00	1,670	-5.00	1,695 1,727.00 1,759 -13.00
6cst fca NWE	1,620	1,650.00	1,680	-5.00	1,706 1,737.50 1,769 -13.00
8cst fca NWE	1,565	1,595.00	1,625	-15.00	1,648 1,679.50 1,711 -23.50
Group III (a)					
4cst fca NWE	1,810	1,840.00	1,870	-5.00	1,906 1,937.50 1,969 -14.00
6cst fca NWE	1,820	1,850.00	1,880	-5.00	1,917 1,948.50 1,980 -13.50
8cst fca NWE	1,830	1,860.00	1,890	-5.00	1,927 1,958.50 1,990 -14.00
<i>* Group III (a) refers to base oils which have Volkswagen Oil Quality Standard VW 504 00/507 00 certification</i>					
Group III (b)					
4cst fca NWE	1,410	1,440.00	1,470	nc	1,485 1,516.50 1,548 -6.50
6cst fca NWE	1,425	1,450.00	1,475	nc	1,501 1,527.00 1,553 -6.50
8cst fca NWE	1,350	1,375.00	1,400	-15.00	1,422 1,448.00 1,474 -22.50
<i>* Group III (b) refers to base oils which do not have Volkswagen Oil Quality Standard VW 504 00/507 00 certification</i>					
US					
	Low	Mid	High	±	
Group I					
SN 150 fob		867	891.00	915	nc
SN 500 fob		1,043	1,067.00	1,091	-9.00
Bright stock fob		1,285	1,308.50	1,332	-9.00
Group II					
N100 fob		949	973.50	998	nc
N220 fob		924	948.50	973	+9.00
N600 fob		1,131	1,155.00	1,179	-12.00
Group III (domestic)					
4cst		1,679	1,704.00	1,729	-19.00
6cst		1,367	1,392.50	1,418	-18.50
8cst		1,361	1,386.00	1,411	-19.00
Naphthenic base oils					
Pale oil 60 fob		1,206	1,229.50	1,253	nc
Pale oil 100 fob		1,322	1,345.50	1,369	nc
Pale oil 500 fob		1,322	1,345.00	1,368	nc
Pale oil 2000 fob		1,321	1,344.00	1,367	nc

ARGUS MARKET MAP



Freight rates (US) *					\$/t
Route	1,000t	3,000t	5,000t	10,000t	
US Gulf coast-Rotterdam	135	98	85	75	
US Gulf coast-Brazil	145	95	80	75	
US Gulf coast-Far East	155	125	95	90	
US Gulf coast-India	164	132	101	92	

* rates for September 2023, provided by SPI Marine (www.spimarine.com)

Freight rates (Asia-Pacific) *				\$/t
Route	3,000t	5,000t		
Singapore-WC India	85.00	72.00		
Singapore-Indonesia	45.50	43.00		
Singapore-Thailand	48.00	45.00		
Singapore-central China	51.00	44.00		
Singapore-Japan	65.00	58.00		
S.Korea-WC India	90.00	85.00		
S.Korea-Singapore	65.00	55.00		
S.Korea-Japan	21.00	18.00		
S.Korea-central China	28.00	24.00		
S.Korea-Taiwan	34.00	27.00		
Japan-central China	50.00	35.00		
S.Korea-US Gulf coast	189.00	169.00		
S.Korea-Europe	186.00	165.00		
Mideast Gulf-WC India	60.50	55.50		
Mideast Gulf-central China	88.50	83.50		

* rates based on one port loading/one port discharge

* rates provided at market close on 19 October by SPI Marine (www.spimarine.com)

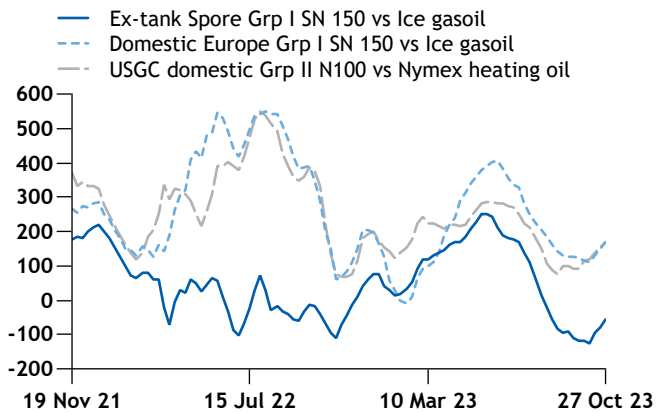
Arbitrage opportunities - Group I *					\$/t
Destination minus Origin Origin Destination	SN 150		SN 500		
	This week	Prior week	This week	Prior week	
Fob Europe export - ex-tank Singapore	-115.00	-120.00	-55.00	-65.00	
Fob Baltic - ex-tank Singapore	+205.00	+200.00	+310.00	+300.00	
Fob Europe export - cfr UAE (LVI)	-95.00	-95.00	-130.00	-130.00	
Fob Asia - domestic US	+220.00	+225.00	+531.50	+545.00	
Fob Europe export - domestic US	+55.00	+55.00	+376.50	+385.00	
Fob Black Sea - cfr India (LVI)	+230.00	+230.00	+295.00	+295.00	
Fob Asia - cfr India (LVI)	+85.00	+90.00	+85.00	+90.00	
Fob Baltic - domestic US	+375.00	+375.00	+741.50	+750.00	
Fob Baltic - domestic NWE	+430.00	+430.00	+475.00	+475.00	
Fob US export - ex-tank Singapore	-31.00	-36.00	-62.00	-81.00	

Arbitrage opportunities - Group II *					\$/t
Destination minus Origin Origin Destination	N100/N150		N500/N600		
	This week	Prior week	This week	Prior week	
Fob Asia - fca ARA	+312.00	+317.00	+397.00	+397.50	
Fob Asia - domestic US	+230.00	+235.00	+701.00	+718.00	
Fob Asia - cfr India	+65.00	+70.00	+70.00	+75.00	
Fob US export - FCA ARA	+258.50	+258.50	+182.00	+165.50	
Fob US export - cfr India	+11.50	+11.50	-145.00	-157.00	
Fob US export - ex-tank Singapore	+56.50	+56.50	-85.00	-97.00	

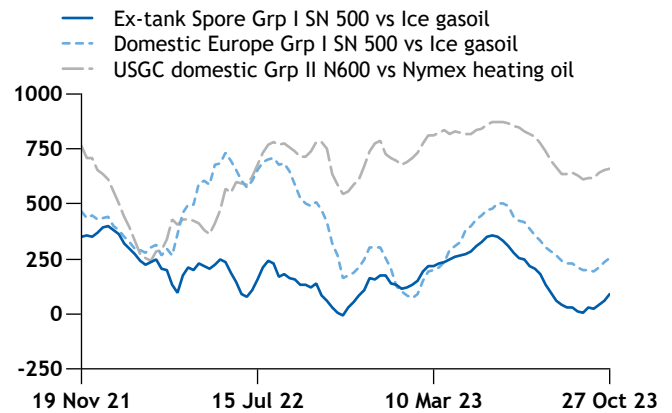
*The price-spread reflects the difference between the fob export (Origin) price and the domestic/cfr (Destination) price

FEEDSTOCK FUNDAMENTALS

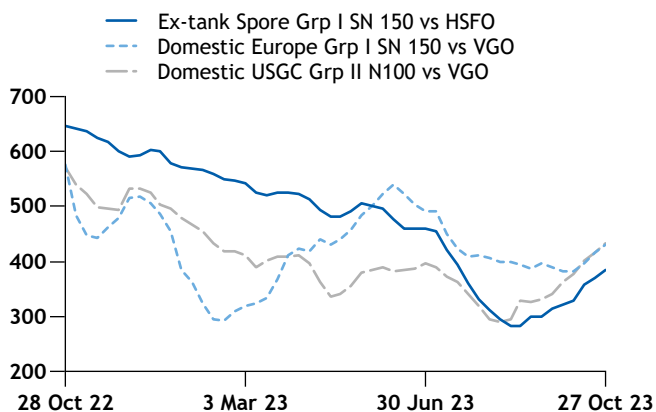
Global light-grade premium to 30-day gasoil \$/t



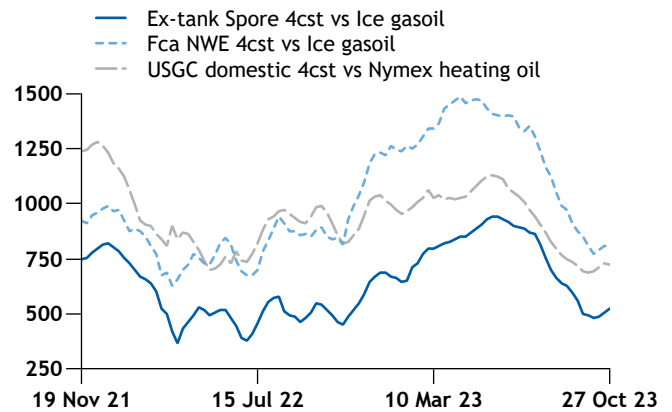
Global heavy-grade premium to 30-day gasoil \$/t



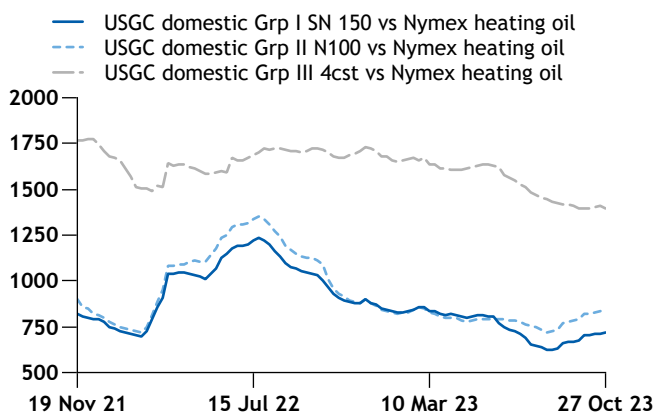
Global light grades vs 4-week feedstock prices \$/t



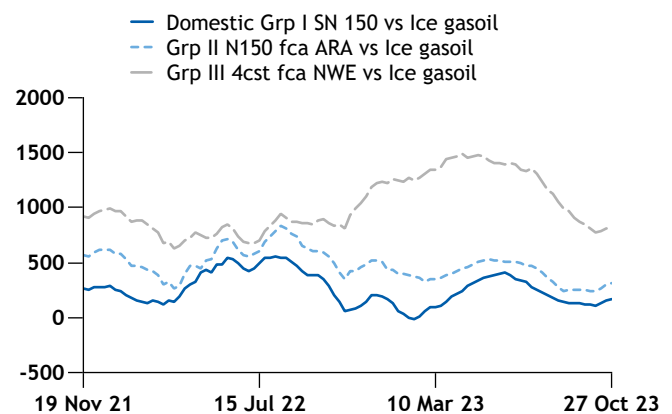
Global Grp III premium to 30-day gasoil \$/t



US light-grade premium to 30-day heating oil \$/t



Europe light-grade premium to 30-day gasoil \$/t



ASIA-PACIFIC

- Buyers cautious with price uncertainty
- Group II producers clear November cargoes
- Offers stay firm on balanced inventories

Asia-Pacific Group I and II spot prices are mostly firm, as regional producers maintain steady offers as supplies are limited and with concerns about potential feedstock disruptions. But demand remains muted from most Asian markets except India, with growing concerns about an economic slowdown and falling feedstock prices weighing on buying appetite. Group III spot prices have held steady, supported by growing Indian demand.

Regional conflicts have driven recent volatility in crude and gasoil prices. Gasoil values have mostly remained below \$900/t this month, fluctuating between \$825-905/t since the Israel-Hamas conflict began on 6 October. Lower feedstock prices and concerns about a seasonal and broader economic slowdown are motivating regional blenders to curb purchases while they continue to closely monitor market developments.

But Asian producers are determined to maintain firm prices on the back of more balanced inventories. Producers cleared large volumes in September for October loading, while a Taiwanese producer's 600,000 t/yr Group II plant continues its maintenance.

The gap in price expectations has widened between buyers and sellers, slowing spot discussions.

Group I light flexibag price offers rise

Limited spot availability of Group I cargoes supported higher prices for small volumes offered into Asia.

Chinese Group I SN 150 in flexibags were sold at mid-\$900s/t cfr southeast Asia. A discount of about \$80/t compared with domestic ex-tank supplies of Group II N150 motivated the blender to buy the cargo, despite some concerns about the product specifications. Group I SN 150 in isotank of Japanese origin was also offered at a low \$1,000s/t cfr southeast Asia. But market participants deemed it too high to work.

Small volume spot prices for Group I heavy grades stayed firm. Group I flexibag supplies from various Asian suppliers were offered within a wide range, with SN 500 available below \$1,100/t cfr southeast Asia and bright stock offered between a mid-\$1,100s to low \$1,200s/t cfr southeast Asia.

Asian buyers step back

Overall spot demand, except in India, has waned because

Group I				\$/t
	Low	Mid	High	±
SN 150 ex-tank Singapore	840	860.00	880	+5.00
SN 500 ex-tank Singapore	985	1,005.00	1,025	+10.00
Bright stock ex-tank Singapore	1,215	1,235.00	1,255	nc
SN 150 fob Asia	800	810.00	820	+5.00
SN 500 fob Asia	885	905.00	925	+5.00
Bright stock fob Asia	1,010	1,030.00	1,050	nc

Group II				\$/t
	Low	Mid	High	±
N150 ex-tank Singapore	1,010	1,030.00	1,050	nc
N500 ex-tank Singapore	1,050	1,070.00	1,090	nc
N150 fob Asia	900	920.00	940	+5.00
N500 fob Asia	920	940.00	960	+5.00

Group III				\$/t
	Low	Mid	High	±
4cst ex-tank Singapore	1,410	1,440.00	1,470	nc
6cst ex-tank Singapore	1,400	1,430.00	1,460	nc
4cst fob Asia	1,260	1,280.00	1,300	nc
6cst fob Asia	1,240	1,260.00	1,280	nc
8cst fob Asia	940	960.00	980	nc

Ex-tank Singapore reference prices					\$/t
Group I			Group II		
SN 150	SN 600	Bright stock	N150	N500	
1,295.00	1,470.00	1,510.00	1,425.00	1,370.00	

Asia SN 500 forward prices				\$/t
	Low	High		±
Nov 2023	895.00	915.00		+5.00
Dec 2023	866.05	886.05		+6.60
Jan 2024	849.65	869.65		+7.50
1Q 2024	837.85	857.85		+8.45
2Q 2024	804.25	824.25		+9.85

The price shows the implied forward-curve base oil price required to maintain its existing profit margin relative to Ice gasoil futures.
Refer to www.argusmedia.com for methodology

Asia SN 500 forward premium to gasoil				\$/t
	Midpoint			±
Nov 2023	0.65			+14.75
Dec 2023	29.60			+13.20
Jan 2024	46.00			+12.30
1Q 2024	57.85			+11.35
2Q 2024	91.45			+9.95

The premium shows the implied forward-curve profitability of fob Asia SN 500 relative to Ice gasoil futures. Refer to www.argusmedia.com for methodology

ASIA-PACIFIC

of increasing tension in the Mideast Gulf. Blenders in Asia-Pacific and the Mideast Gulf are holding back from replenishing stocks. Some blenders with large term volumes are reoffering their surplus supplies in flexibags to other smaller regional blenders, as weaker lube demand curbs base oil consumption.

Multiple tenders of less than 1,500t each of Group II mid- and heavy-viscosity grades emerged in southeast Asia. These tenders will likely be finalised next week. Prices offers for these tenders on a fob Asia basis have fallen from previous weeks on the back of lower crude and gasoil values.

Firm offers supported by balanced inventories

Regional producers have sought to hold their prices firm with more balanced inventories. Some producers have cleared most of their spot cargoes for November and are not yet offering for December. A key South Korean producer focused on clearing large term volumes into India, while another moved large spot cargoes to Europe, Latin America and India.

A two-month maintenance at a Taiwanese Group II plant that began in mid-October has further curbed regional spot supplies.

A Malaysian refiner is scheduled to start a turnaround in late January 2024. The turnaround will affect its 280,000 t/yr Group II and III base oil unit. It is expected to last for up to 50 days. The producer is motivated to offer at firmer prices as it builds inventories ahead of the maintenance. Its bulk offers for Group II N500 are about \$40/t higher than other regional producers. Its Group III 4cst and 6cst offers are up to \$160/t higher than another major South Korean producer.

Crude	\$/bl	
	±	
Dubai crude front month	89.34	-3.14
SN 500 premium to Dubai crude	38.21	+3.84

Oil products	\$/bl	
	±	
Singapore 0.05% gasoil	111.10	-1.85
Gasoil premium to Dubai crude	20.74	-0.75
SN 500 premium to gasoil	16.45	+2.55

Vessel enquiries: Asia-Pacific				t
Loading port	Next port	B/L Date	Volume	
Onsan	Tianjin	25-30 Oct	1000	
Onsan	Huizhou	7-11 Oct	2200	
Onsan	Mumbai	26-28 Oct	8000-9000	
Onsan	Merak	5-10 Oct	1150	
Onsan	Rio de Janeiro	erly Dec	4500	
Singapore	Taichang	Prompt	9550	
Onsan	Singapore	Oct	1000	
Daesan	Singapore	3-15 Oct	6200	
Yeosu	Haiphong	10-14 Oct	2000	
Yeosu	Haiphong	10-14 Oct	2000	
Mizushima	Ulsan	1-10 Oct	1200	
Port Kulang	Labuan	Prompt	1000	

Source: shipping agents, brokers

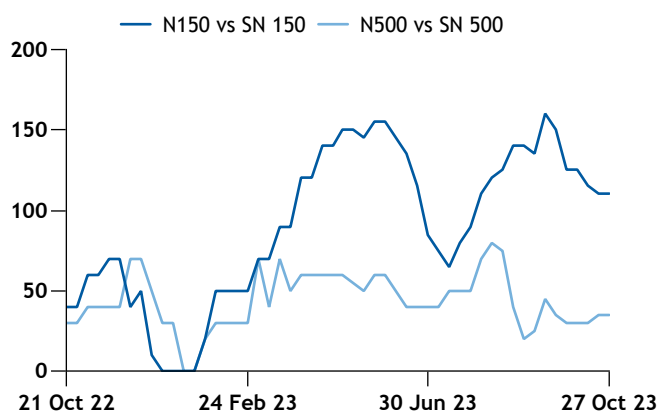
阿格斯中国基础油周报 Argus China Base Oils

A weekly market service published in Chinese

Argus China Base Oils provides weekly Asia-Pacific and northeast Asia base oil spot prices, domestic ex-tank China prices and Chinese producer posted prices and market analysis for the northeast Asia base oil market.

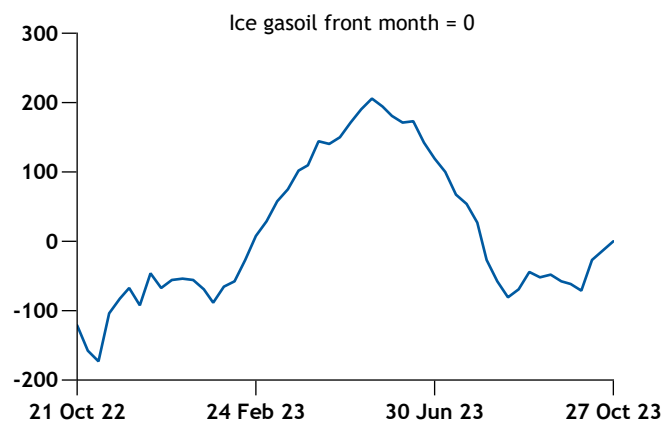
Fob Asia Group I vs Group II

\$/t



Asia SN 500 premium to Ice gasoil

\$/t



NORTHEAST ASIA

- Muted demand pressures spot prices
- Arbitrage closed for Group II imports
- Bright stock prices firm on tight supplies

Northeast Asian base oil spot prices are mostly steady as fluctuating crude and gasoil feedstock costs offset muted demand. Limited spot supply availability continues to support bright stock prices but sales are also slowing and have helped to ease some supply tightness.

Plentiful spot supplies have weighed on prices for domestically produced Group II volumes. Easing demand also prompted some distributors to cut prices slightly for imported cargoes to compete for orders. This applies particularly for Group II light grades, although the arbitrage remains closed for imports.

Muted demand and continued price falls have prompted some trading firms to export transformer and naphthenic oils on firmer demand from other regions.

China's domestic Group III producers are also planning to increase their output with improving quality, while some refiners are providing discounts to prices to compete for market share.

Imported bright stock spot prices have already risen to a one-year high, with blenders remaining cautious on their purchases. More cargoes are expected to arrive in November, with a key domestic producer continuing to offer volumes at discounted prices for November delivery.

Slow sales and a fall in waste engine oil costs have pressured re-refined oil prices despite low run rates at domestic refineries.

China import price calculator *						
	Yn/t			\$/t		
	Low	High	±	Low	High	±
Group I (imported prices)						
SN 150	8,288	8,638	+2	1,133.00	1,181.00	nc
SN 500	9,339	9,690	+2	1,276.00	1,324.00	-0.50
Bright stock	11,355	11,705	+46	1,552.00	1,600.00	+6.00
Group II (imported prices)						
N150	9,515	9,865	-86	1,301.00	1,348.00	-12.00
N500	9,646	9,997	+2	1,318.00	1,366.00	nc

* inc. 6% customs duty, 13% VAT and 1,711.52 Yuan/t consumption tax.

Group I				
	Low	Mid	High	±
SN 150 cfr	725	745.00	765	nc
SN 500 cfr	845	865.00	885	nc
Bright stock cfr	1,075	1,095.00	1,115	+5.00

Group II				
	Low	Mid	High	±
N150 cfr	865	885.00	905	-10.00
N500 cfr	880	900.00	920	nc

Group III				
	Low	Mid	High	±
4cst cfr	1,215	1,235.00	1,255	-5.00
6cst cfr	1,115	1,140.00	1,165	-5.00
8cst cfr	875	900.00	925	-5.00

Ex-tank East China								
	Yn/t				\$/t			
	Low	Mid	High	±	Low	Mid	High	±
Group I								
Bright stock	11,900	12,000.00	12,100	+100.00	1,626	1,640.00	1,654	+13.50
Group II								
N150	9,300	9,400.00	9,500	-50.00	1,271	1,284.50	1,298	-7.50
N500	9,350	9,450.00	9,550	nc	1,278	1,291.50	1,305	-0.50
Group III								
4cst	12,650	12,750.00	12,850	nc	1,729	1,742.50	1,756	-0.50
6cst	11,050	11,150.00	11,250	nc	1,510	1,524.00	1,538	-0.50
8cst	8,900	9,000.00	9,100	nc	1,216	1,230.00	1,244	-0.50

China domestic prices						
	Yn/t			\$/t		
	Low	High	±	Low	High	±
Group I, SN 150						
Northeast						
Daqing	8,400	8,500	nc	1,148.00	1,162.00	nc
Dalian	8,400	8,500	nc	1,148.00	1,162.00	nc
North						
Yanshan	8,400	8,500	nc	1,148.00	1,162.00	nc
South						
Maoming	7,600	7,700	nc	1,039.00	1,052.00	-0.50
Group I, SN 400						
Northeast						
Fushun	8,500	8,600	nc	1,162.00	1,175.00	-0.50
Dalian	8,200	8,300	nc	1,121.00	1,134.00	-0.50
South						
Maoming	8,500	8,600	nc	1,162.00	1,175.00	-0.50
Group II, N150						
East						
Gaoqiao	8,750	8,850	nc	1,196.00	1,210.00	nc
South						
Huizhou	8,800	8,900	-100	1,203.00	1,216.00	-14.00

INDIA

- Spot discussions slow with upstream volatility
- Tight Group I supplies support Group II prices
- November cargo loading discussions firm

Indian base oil spot prices are largely stable as discussions slow as buyers have replenished stocks. Transactions for November-loading cargoes are largely firmer compared with the previous month, supported by demand during the festive season. But volatile crude and gasoil prices are weighing on buying sentiment, with market participants opting to monitor feedstock values further before engaging in firm talks.

Demand increases ahead of Diwali

India's demand is robust during the festive season in the lead-up to Diwali in November. Market participants are optimistic about demand for the next few months with a firm economic outlook. India's gross domestic product growth projections were raised to 6.3pc for the 2023-2024 fiscal year, according to the IMF's *World Economic Outlook* report in October.

Group I spot supplies remain tight in Asia and offers are scarce, while buying indications also remain firm. Tightening Group I supplies are more acutely felt in India where demand is rising during the festive season. Weaker demand is offsetting the limited supplies in the wider region.

Group I, II spread narrows

More blenders are switching to buying readily available Group II spot supplies to substitute Group I grades, further balancing supplies for Group II light and heavy neutrals.

The spread between Group I and II light neutrals is at \$55/t, narrower than a high of \$120/t this year in the week to 1 September. But the spread remains wider than a five-year average of around \$27/t.

Deals and discussions for Group II N70 volumes for November loading are firmer than the previous month, supported by lower supply availability. Some suppliers held out for firm prices with volatile crude and gasoil prices. But some buying indications have reduced this week, in line with falling feedstock prices.

Group III cargoes target US, Europe

Global Group III supplies remains ample and demand weak but key suppliers to India are keeping inventories under control. Some Asian suppliers are offering cargoes to the US and Europe where returns are better. A key supplier has no spot volumes to offer in Asia and is focusing on fulfilling term supplies. Another southeast Asian Group III supplier will also

Group I				\$/t
	Low	Mid	High	±
SN 150 cfr	910	930.00	950	nc
SN 500 cfr	965	985.00	1,005	+5.00
SN 150 (LVI) cfr	875	895.00	915	nc
SN 500 (LVI) cfr	970	990.00	1,010	nc
Bright stock cfr	1,060	1,080.00	1,100	nc

Group II				\$/t
	Low	Mid	High	±
N70 cfr	1,005	1,025.00	1,045	nc
N150 cfr	965	985.00	1,005	nc
N500 cfr	990	1,010.00	1,030	nc

Group III				\$/t
	Low	Mid	High	±
4cst cfr	1,220	1,240.00	1,260	+5.00
6cst cfr	1,220	1,240.00	1,260	+5.00
8cst cfr	985	1,005.00	1,025	+5.00

Domestic refinery prices				
	Rs/l *	±	\$/t	±
Group I				
IOC prices, Chennai				
SN 70	101.34	nc	1,493.00	-3.00
SN 150	85.80	nc	1,188.00	-2.00
SN 500	92.95	nc	1,266.00	-2.00
Bright stock	114.70	nc	1,531.00	-2.00
IOC prices, Mumbai				
SN 70	87.00	nc	1,282.00	-2.00
SN 150	82.40	nc	1,141.00	-2.00
SN 500	85.75	nc	1,168.00	-2.00
Bright stock	106.00	nc	1,414.00	-3.00
Group II				
IOC prices, Chennai				
N70	122.69	nc	1,762.00	-3.00
N150	86.60	nc	1,226.00	-2.00
N500	93.71	nc	1,310.00	-2.00
IOC prices, Mumbai				
N70	89.70	nc	1,289.00	-2.00
N150	83.20	nc	1,178.00	-2.00
N500	86.95	nc	1,216.00	-2.00

* prices in Rs/l effective from 01 Oct

Vessel enquiries: India				t
Loading port	Next port	B/L Date	Volume	
Onsan	Mumbai	26-28 Oct	8000-9000	
Ras Laffan	Mumbai	13-18 Oct	10000	
West Coast India	Rio de Janeiro	Oct	5000	

Source: shipping agents, brokers

start maintenance towards late January 2024 and is focusing on stockpiling.

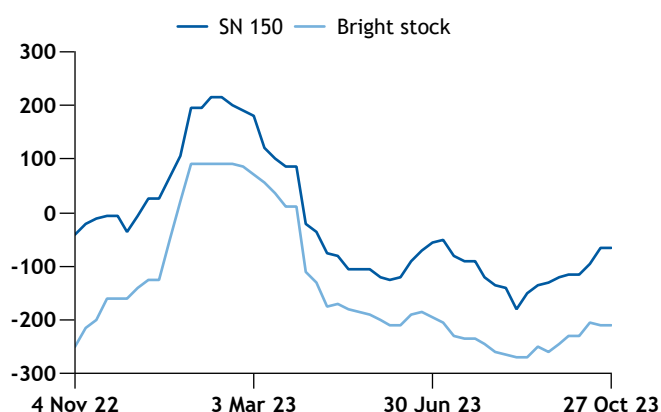
The spread between Group III and Group II cfr India prices have narrowed over the past few months, giving little incentive for suppliers to lower Group III prices further.

India Group III 4cst cfr import prices are at a premium of \$215/t to India Group II N70 cfr import prices. This is above the five-year average premium of around \$197/t. The highest premium this year was as wide as \$600/t at the end of June.

Group III 8cst supplies are tighter than other Group III grades on firming demand for high-viscosity base oils as industrial activity increases. India Group III 8cst cfr import prices are at a discount of \$5/t to India Group II N500 cfr import prices, while the five-year average discount is around \$22/t.

Indian base oils vs Europe

\$/t



MIDEAST GULF

- Group I prices firm with tighter supplies
- Group II prices hold steady on subdued demand

Mideast Gulf Group I spot prices are stable to firm supported by tighter global supplies. Group II prices are stable following price increases and slowing demand. Group III prices have edged lower with sales competition.

Group I heavy grades have extended gains and ex-tank spot prices remain firm. Bright stock ex-tank UAE prices are around a mid-\$1,000s/t. Cfr UAE spot prices also increased in the absence of lower priced import cargoes, with Argus-assessed fob Asia prices at \$1,030/t.

Group I low-viscosity index spot prices are largely stable as supply availability increases with weaker demand.

Offers for Group II volumes have inched up on rising cost pressure and in line with a firm global trend. But further

MIDEAST GULF SPOT PRICES

Group I				\$/t
	Low	Mid	High	±
Bright stock ex-tank UAE	1,110	1,130.00	1,150	+10.00
SN 150 cfr UAE	880	900.00	920	nc
SN 500 cfr UAE	945	965.00	985	+10.00
Bright stock cfr UAE	1,060	1,080.00	1,100	+10.00
SN 150 (LVI) cfr UAE	860	880.00	900	nc
SN 500 (LVI) cfr UAE	910	930.00	950	nc

Group II				\$/t
	Low	Mid	High	±
N150 ex-tank UAE	970	990.00	1,010	nc
N500 ex-tank UAE	1,010	1,030.00	1,050	nc

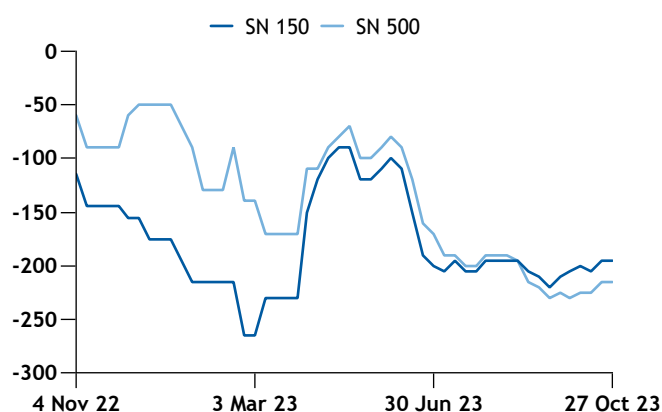
Group III				\$/t
	Low	Mid	High	±
4cst ex-tank UAE	1,285	1,305.00	1,325	-10.00
6cst ex-tank UAE	1,275	1,295.00	1,315	-5.00
8cst ex-tank UAE	1,050	1,070.00	1,090	-5.00

Vessel enquiries: UAE				t
Loading port	Next port	B/L Date	Volume	
Ras Laffan	Mumbai	13-18 Oct	10000	

Source: shipping agents, brokers

Black Sea vs UAE (LVI)

\$/t



price increases for Group II supplies are facing resistance from buyers with import arrivals. Market sentiment is cautious following the Israel-Hamas conflict that has contributed to feedstock price volatility. Group II N150 spot prices remain below \$1,000/t ex-tank UAE, while N500 values are at a low \$1,000s/t ex-tank UAE.

Group III volumes are largely abundant, with 4cst supplies more ample than 6cst and 8cst. Sellers face increased competition as demand remains weak.

EUROPE & TURKEY

- Group I prices steady on muted activity
- Curbed spot offers lift Group II prices
- Group III slips on weaker demand

European Group I domestic and export spot prices are flat as muted demand is counterbalancing limited availability. Group II prices face upwards pressure as offers from Asia firm and curb with regional maintenance and a strengthening US dollar supporting prices. Group III prices are steady to weaker with stagnant demand.

Supplies limited, demand weak

Regional Group I spot prices are stable as limited available volumes are offset by persistently weak demand.

A Mediterranean refinery is not yet offering supplies of SN 150 and will not be loading volumes on 1 November during a public holiday. It has limited availability of bright stock but supplies of SN 500 are ample. Supplies of SN 150 and bright stock grades are tight across Europe, supporting prices.

But buying activity remains slow, with limited demand emerging from Scandinavia and Latin America. Blenders rely on term volumes.

Discussions for 2024 contract agreements continue. Market participants are looking to increase term volumes ahead of further price increases and an anticipated supply tightness.

Group II prices firm, offers slow

Group II prices have firmed as spot offers curb and a strengthening US dollar adds upwards pressure on euro-based prices.

Spot offers from Asia and the US have curbed with tightening availability. An unfavourable exchange rate is further prompting European suppliers to maintain firm prices.

But spot demand remains slow as finished lubricant sales dropped by up to 15-20pc for some blenders in October. Term volumes are sufficient to meet buyer demand.

Some buying interest remains for N150 grades with limited availability of Group I SN 150 for blenders flexible in their formulations. But volumes remain small.

Group III spot sales slow

Group III spot prices are steady to falling as market activity remains muted.

Group III volumes with varying approvals are mostly steady as blender tanks are full, hindering buying activity.

Group I				\$/t
	Low	Mid	High	±
SN 150 fob domestic NWE	1,065	1,085.00	1,105	nc
SN 500 fob domestic NWE	1,150	1,170.00	1,190	nc
Bright stock fob domestic NWE	1,380	1,400.00	1,420	nc
SN 150 fob European export	955	975.00	995	nc
SN 500 fob European export	1,040	1,060.00	1,080	nc
Bright stock fob European export	1,250	1,270.00	1,290	nc

Group II				€/t	\$/t			
	Low	Mid	High	±	Low	Mid	High	±
N100 fca ARA	1,130	1,150.00	1,170	+10.00	1,190	1,211.00	1,232	+5.00
N150 fca ARA	1,150	1,170.00	1,190	+5.00	1,211	1,232.00	1,253	nc
N220 fca ARA	1,120	1,140.00	1,160	+20.00	1,179	1,200.50	1,222	+16.00
N600 fca ARA	1,250	1,270.00	1,290	+10.00	1,316	1,337.00	1,358	+4.50

Group III				€/t	\$/t			
	Low	Mid	High	±	Low	Mid	High	±
4cst fca NWE	1,610	1,640.00	1,670	-5.00	1,695	1,727.00	1,759	-13.00
6cst fca NWE	1,620	1,650.00	1,680	-5.00	1,706	1,737.50	1,769	-13.00
8cst fca NWE	1,565	1,595.00	1,625	-15.00	1,648	1,679.50	1,711	-23.50

Group III (a) *				€/t	\$/t			
	Low	Mid	High	±	Low	Mid	High	±
4cst fca NWE	1,810	1,840.00	1,870	-5.00	1,906	1,937.50	1,969	-14.00
6cst fca NWE	1,820	1,850.00	1,880	-5.00	1,917	1,948.50	1,980	-13.50
8cst fca NWE	1,830	1,860.00	1,890	-5.00	1,927	1,958.50	1,990	-14.00

* Group III (a) refers to base oils which have Volkswagen Oil Quality Standard VW 504 00/507 00 certification

Group III (b) *				€/t	\$/t			
	Low	Mid	High	±	Low	Mid	High	±
4cst fca NWE	1,410	1,440.00	1,470	nc	1,485	1,516.50	1,548	-6.50
6cst fca NWE	1,425	1,450.00	1,475	nc	1,501	1,527.00	1,553	-6.50
8cst fca NWE	1,350	1,375.00	1,400	-15.00	1,422	1,448.00	1,474	-22.50

* Group III (b) refers to base oils which do not have Volkswagen Oil Quality Standard VW 504 00/507 00 certification

Turkey Group I				\$/t
	Low	Mid	High	±
SN 150 cfr Gebze	855	875.00	895	nc
SN 500 cfr Gebze	925	945.00	965	nc

Falling finished lubricant sales is reducing demand for oils of varying approvals as blenders have full tanks and do not want to build large inventories before the end of the year.

Discussions for 2024 term contracts continue. Buyers are looking to secure fewer term volumes at a significant discount. Some distributors are pressuring refineries for lower prices with abundant competitive offers.

Demand for fully-approved grades continues to shrink as a supplier maintains high price levels. It is offering discounts to some larger customers to encourage buying.

Some additive suppliers have issued price increases of between 8-12pc on all packages. Blenders are pushing back as it will make finished lubes more uncompetitive on a global scale.

European exports remain weak

Group I export prices are steady as demand remains weak despite limited supplies.

A Mediterranean producer is offering limited volumes of SN 500 and bright stock but no SN 150 volumes. Few European producers have volumes available and are maintaining high prices. The Mexican government has imposed a 30-day ban on base oil imports that could increase available US exports. These could target Indian, Turkish, west African and subsequently European buyers as an alternative export outlet for Group I and Group II light grades.

But demand remains weak in Europe. West African blenders continue look for cheaper material with financing difficulties, as European prices are deemed too high. Spot enquiries emerged from Israel but logistical constraints with its continuing conflict with militant group Hamas is deterring some transactions.

TURKEY

Turkey's Group I delivered prices are stable as demand for Europe-origin volumes remains but spot liquidity is scarce.

Turkish blenders continue to look for alternatives to Russian material to boost finished lubricant exports to Europe, following the ban on Russian oil products, maintaining strong spot demand for Europe-origin products. But few European producers have export availability and are unwilling to offer discounts, stalling transactions.

Russian volumes continue to target Turkish blenders. But long voyage times from Russian refineries to Black Sea ports of up to 20 days are slowing increased shipments.

Crude	\$/bl	
	±	
Ice Brent front month (\$/bl)	87.93	-4.45
North Sea Dated	89.97	-3.39
SN 500 premium to North Sea Dated	59.43	+3.39

Oil products	±	
Ice gasoil front month (\$/t)	888.50	-21.50
Heating oil 0.1% barge (\$/t)	881.00	-17.75
Vacuum gasoil 0.5% barge (\$/t)	633.25	-35.63
Vacuum gasoil 2.0% barge (\$/t)	624.75	-31.75
Fuel oil 3.5% barge (\$/t)	464.00	-29.00

Straight run M-100 fuel oil cargo (\$/t)

Oil products premiums		
Heating oil premium to crude (\$/bl)	28.39	+1.01
Heating oil premium to VGO 2.0% (\$/bl)	26.67	+2.27
SN 500 premium to heating oil (\$/bl)	31.04	+2.39
SN 500 premium to VGO 2.0% (\$/bl)	57.71	+4.66

European forward prices		\$/t				
	SN 150			SN 500		
	Low	High	+/-	Low	High	±
Nov 2023	965.00	985.00	nc	1,050.00	1,070.00	nc
Dec 2023	936.05	956.05	+1.60	1,021.05	1,041.05	+1.60
Jan 2024	919.65	939.65	+2.50	1,004.65	1,024.65	+2.50
1Q 2024	907.85	927.85	+3.45	992.85	1,012.85	+3.45
2Q 2024	874.25	894.25	+4.85	959.25	979.25	+4.85

The price shows the implied forward-curve base oil price required to maintain its existing profit margin relative to Ice gasoil futures.

Refer to www.argusmedia.com for methodology

European forward premium to gasoil		\$/t			
	SN 150		SN 500		±
	Midpoint	±	Midpoint	±	
Nov 2023	70.65	+9.80	155.65	+9.80	
Dec 2023	99.60	+8.20	184.60	+8.20	
Jan 2024	116.00	+7.30	201.00	+7.30	
1Q 2024	127.85	+6.35	212.85	+6.35	
2Q 2024	161.45	+4.95	246.45	+4.95	

The premium shows the implied forward-curve profitability of fob Europe SN 150 and SN 500 relative to Ice gasoil futures.

Refer to www.argusmedia.com for methodology

Freight rates to Gebze, Turkey		\$/t			
Route	3,000t	5,000t	Route	3,000t	5,000t
Black Sea	70-75	55-60	Antwerp	80-90	70-90
Augusta	55-60	42-47	Baltic	150-175	130-140
UAE	170-185	150-160			

* provided at market close on 23 June by Borachart (www.borachart.com)

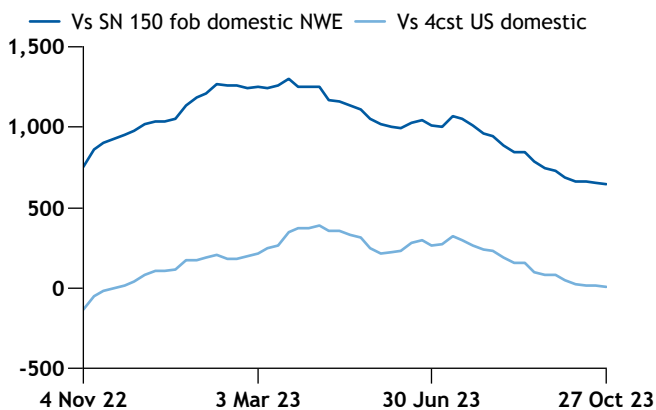
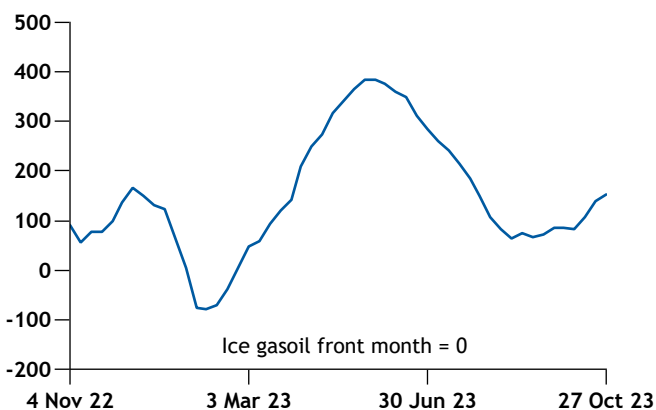
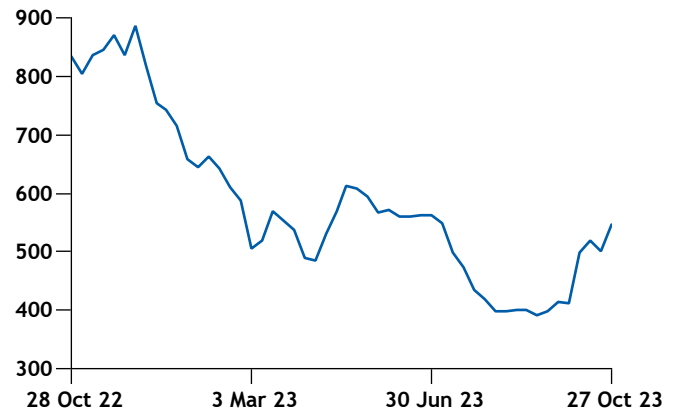
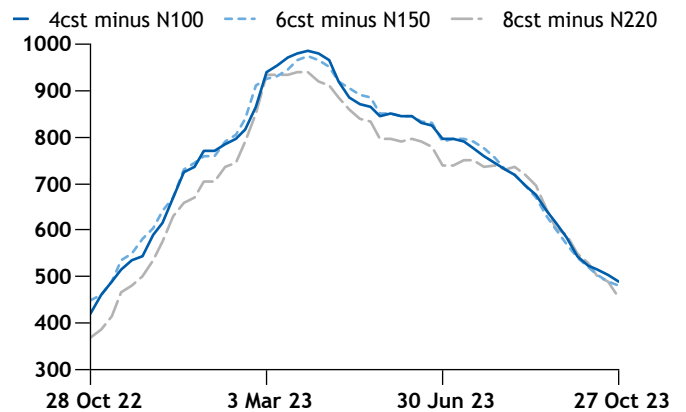
Vessel enquiries: Europe t

Loading port	Next port	B/L Date	Volume
Eastham	Eleusis	23-27 Oct	7000
Eastham	Israel	20 Oct-05 Nov	2000-3000
Mersin	Ashdod	Prompt	5000-7000
Agioi	Haifa	2H Oct	2860
Izmit	Haifa	2H Oct	4000-5000
Agioi	Haifa	2H Oct	2860
Rotterdam	Naantali	24-26 Oct	2000
Antwerp	Rio de Janeiro	Nov	2500

Source: shipping agents, brokers

Domestic producer ex-tank refinery price

Product	TRY/t 23-27 Oct	+/- 16-20 Oct	USD/t 23-27 Oct	+/- 16-20 Oct
SN 100	28,416	0	1,009	-6
SN 150	24,519	0	870	-6
SN 500	27,024	0	959	-6
Bright stock	33,167	0	1,178	-8

European 4cst vs SN 150, vs US 4cst \$/tEuropean SN 500 premium to Ice gasoil \$/tEuropean N220 premium to VGO 2% €/tEuropean Group III vs Group II €/t

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RUSSIA AND FSU

- Spot prices supported by feedstock values
- Turkish demand supports Black Sea prices

Baltic and Black Sea spot prices held firm with balanced market fundamentals. Prices in the cpt Naushki market were steady on muted trading activity.

Weak demand in the Baltic market was counterbalanced by high feedstock costs. European buyers are persistently holding off from buying Russia-origin supplies with the ban on oil product imports into the EU. Regional sellers are offering their cargoes into more distant markets like Turkey, the Middle East and Africa. But deliveries into these markets remain complicated because of financial difficulties. Banks often reject financing deals on Russia-origin cargoes because of the sanctions imposed on the Russian oil sector.

Prices in the Black Sea market are supported by steady demand from Turkey. The depreciation of the Turkish lira prompts domestic buyers to seek Russian supplies offered at more competitive levels compared with European refiners.

Domestic Group III prices fall

Domestic prices for Group III 4cst supplies at Tatneft's Nizhnekamsk refinery for volumes for October delivery are at 120,000-125,000 roubles/t fca refinery against Rbs120,000-140,000/t fca in late August. The prices include Russia's

Russian base oil, lubes rail/river exports by supplier							'000t
	Sep	Aug	±		Sep	Aug	±
Volgograd	20.87	8.19	+12.68	Yaroslavl	1.88	3.18	-1.29
by rail	15.87	8.19	+7.68	Ufa	2.72	3.71	-1.00
by river	5.00	0.00	+5.00	Orgkhim	0.82	1.73	-0.91
N.Novgorod	0.00	0.00	nc	Obninsk	0.57	0.63	-0.06
Perm	21.20	28.98	-7.78	Sofrino	0.02	0.31	-0.29
Novokuibyshevsk	2.77	0.58	+2.19	Orenburg	0.00	0.00	nc
Angarsk	3.25	4.10	-0.85	Omsk	1.96	2.23	-0.27
Nizhnekamsk	1.57	1.01	+0.56	Other	0.38	1.05	-0.66
Total					58.01	55.69	+2.32

Baltic Sea Group I \$/t				
	Low	Mid	High	±
SN 150 fob	635	655.00	675	nc
SN 500 fob	675	695.00	715	nc

Black Sea Group I \$/t				
	Low	Mid	High	±
SN 150 fob	645	665.00	685	nc
SN 500 fob	675	695.00	715	nc

Naushki Group I \$/t				
	Low	Mid	High	±
SN 150 cpt	605	625.00	645	nc
SN 500 cpt	635	655.00	675	nc

Russian base oils, lubes rail/river exports					'000t		
	Sep	Aug	±		Sep	Aug	±
Rail							
Overland	11.87	28.36	-16.49	Baltic	31.49	23.95	+7.53
Afganistan	0.00	0.07	-0.07	Kaliningrad	0.00	0.00	nc
Armenia	0.00	0.00	nc	Liepaja	0.00	0.00	nc
Azerbaijan	1.78	7.70	-5.92	Riga	0.00	0.00	nc
Belarus	4.83	3.99	+0.83	Ventspils	0.00	0.00	nc
China	0.03	0.00	+0.03	St.Petersburg	28.35	19.87	+8.48
Hungary	0.00	0.00	nc	Vyborg	3.14	4.08	-0.94
North Korea	0.00	0.00	nc	Black Sea	8.13	1.63	+6.50
Finland	0.00	0.00	nc	Taganrog	3.16	0.00	+3.16
Kazakhstan	2.08	8.55	-6.47	Yeisk	0.00	0.00	nc
Kyrgyzstan	0.27	0.69	-0.42	Kavkaz	0.53	0.23	+0.29
Latvia	0.00	0.00	nc	Novorossiysk	4.44	1.39	+3.04
Lithuania	0.00	0.00	nc	Reny	0.00	0.00	nc
Moldova	0.00	0.00	nc	Odessa	0.00	0.00	nc
Mongolia	0.48	0.67	-0.19	Temryuk	0.00	0.00	nc
Romania	0.00	0.00	nc				
Poland	0.00	0.00	nc	River			
Georgia	0.00	3.88	-3.88	Volgograd	5.00	0.00	+5.00
Tajikistan	0.72	0.83	-0.11				
Turkmenistan	0.62	0.40	+0.22	Far East			
Ukraine	0.00	0.00	nc	Nakhodka	0.40	1.76	-1.36
Uzbekistan	1.07	1.58	-0.51				
Total Russia rail, river exports					58.01	55.69	+2.32

Russian domestic prices								
	RUB/t				\$/t			
	Low	Mid	High	±	Low	Mid	High	±
Group I, I-20 fca								
Ufa	65,500	66,250	67,000	0.00	703.16	711.21	719.26	30.83
Novokuibyshevsk	65,500	66,000	66,500	0.00	703.16	708.53	713.90	30.71
Angarsk	62,000	65,000	68,000	0.00	665.59	697.79	730.00	30.26
Omsk	66,000	67,500	69,000	0.00	708.53	724.63	740.74	31.42
Yaroslavl	72,000	74,000	76,000	0.00	772.94	794.41	815.88	34.44
Group I, I-40 fca								
Ufa	65,500	66,100	66,700	0.00	703.16	709.60	716.04	30.76
Novokuibyshevsk	65,500	66,000	66,500	0.00	703.16	708.53	713.90	30.71
Angarsk	62,000	63,000	64,000	0.00	665.59	676.33	687.06	29.33
Omsk	65,000	66,500	68,000	0.00	697.79	713.89	730.00	30.95
Yaroslavl	71,000	73,500	76,000	0.00	762.21	789.04	815.88	34.21

RUSSIA AND FSU

20pc value-added tax.

The drop in prices may reflect a slowdown in domestic buying interest, while Tatneft's product exports remain limited by sanctions.

Product shipments from the Nizhnekamsk plant to domestic buyers have been around 8,300t since the start of October compared with more than 12,500t during 1-25 September.

Exports of Tatneft's product by rail over 1-25 October were 1,500t, similar to the volume shipped by the producer for the same period in September. Some 700t was sold to former Soviet Union countries like Kazakhstan, Belarus and Azerbaijan with around 800t shipped to the Black Sea port of Novorossiysk.

Russian producers have started offering November-loading supplies. Rosneft issued a tender for 45,750t from its Yaroslavl, Novokuibyshevsk, Ufa and Angarsk refineries. Gazpromneft offered in total around 1,000t of Group I supplies from its Omsk plant. The results of these tenders are not available yet. But buyers expect prices for November volumes to remain similar to October shipment levels. Prices for October-loading supplies of SN 150 and SN 350 at Novokuibyshevsk and Ufa refineries were at around Rbs66,000/t fca refinery.

The Argus Russian diesel index edged lower to Rbs65,250/t (\$700/t). Prices were pressured by higher fuel availability and a slowdown in domestic demand.

Russian domestic lube/base oil supplies			'000t
Supplier	Sep 23	± Aug 23	
Lukoil Volgograd	9.65	-0.54	
Rosneft Novokuibyshevsk	10.10	-2.22	
Bashneft Ufa	14.85	3.56	
Lukoil Perm	8.56	0.75	
Rosneft Angarsk	8.79	0.57	
Gazpromneft Omsk	3.70	-0.21	
Gazpromneft/Rosneft Yaroslavl	11.20	-3.12	
Orgkhim	1.61	-0.08	
Tatneft Nizhnekamsk	13.91	0.75	
Rosa-1	0.18	0.12	
Lukoil Tyumen	0.12	0.01	
Shaumyan lube plant	0.48	-0.23	
Devon Group	0.19	-0.06	
Sofrino lube plant	0.00	0.00	
Rosneft Ryazan	0.00	-0.12	
Experimental plant Neftekhim	0.00	0.00	
Obninskorgsintez	3.15	-0.34	
Others	45.79	-4.19	
TOTAL	132.27	-5.34	

Russian and Belarusian base oil export duty *						\$/t
Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	
7.80	7.10	6.40	5.00	4.60	4.80	
May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	
4.30	4.20	4.20	3.80	5.00	12.90	

* tax paid by producer for base oils export outside of Russia, Belarus, Kazakhstan, Tajikistan and Kyrgyzstan

Baltic loadings					t
Port/terminal	Vessel	Next port	Volume	B/L Date	
Svetly	Lagertha	Izmit	17,000	14 Mar	
Riga	Paul E	Rotterdam	6,350	14 Jan	
Riga	Aleyna Mercan	Hamina	2,000	5 Jan	
Riga/Ventspils	Sigrid Theresa	Gebze	8,000	10-13 Dec	
Vyborg	Aleyna Mercan	Riga	4,000	8 Dec	
Riga	Aragonith	Hull	2,300	28 Nov	
Liepaja	Aleyna Mercan	Klaipeda	2,000	15 Nov	
Riga	BDP Spirit	Lagos	14,400	10 Nov	
Svetly	Sehnaz Ka	Limas	10,000	6 Nov	
Liepaja	Bergen Star	Immingham	1,600	20 Oct	
Riga	Nordic Saga	Dordrecht	3,000	4 Oct	
Svetly/Riga	PVT Elena	Turkey	3,000	9 Sep	
Vyborg	Aleyna Mercan	Riga	3,000	31 Aug	
Svetly	Sveva	Singapore	8,200	31 Jul	
Riga	Key North	Vaksdal	2,500	26 Jul	
Riga	Chem Lyra	Gdansk	8,000	7 Jul	
Riga	DutchAquamarine	Oulu	3,000	29 Jun	
Riga	SusanneTheresa	Rotterdam	3,000	5 Jun	
Riga	Aragonith	Eastham	2,000	30 May	
Riga	Dumankaya	Rotterdam	4,000	15 May	

FSU KEY PRODUCERS' SN 500 PRICE (NETBACK)* \$/t

Perm	\$/t	Ufa	\$/t	Omsk	\$/t
To Baltic Sea	588	To Baltic Sea	584	To Baltic Sea	564
To Black Sea	635	To Black Sea	644	To Black Sea	619
To Naushki	546	To Naushki	548	To Naushki	575
Volgograd	\$/t	Angarsk	\$/t		
To Baltic Sea	592	To Baltic Sea	510		
To Black Sea	674	To Black Sea	567		
To Naushki	513	To Naushki	625		

* price calculated by subtracting transport costs and taxes between the producer and the fob Baltic, fob Black Sea and cpt Naushki pricing point.

US

- Mexico import ban pressures light grades
- Heavy grades face downward pressure
- Group III prices fall on weak demand

US Group I and Group II spot prices are mixed as domestic demand is firming for light- and mid-viscosity grades and weakening for heavy-viscosity grades. Group III prices are falling because of weak demand and ample supplies.

Domestic demand is rising for light- and mid-viscosity grades as some downstream buyers are building limited inventories of finished lubricants. Some of these buyers are working to buy ahead of finished lubricant price increases set for late October and early November.

Base oil and lubricant inventories are also lower than normal for late October because of year-long inventory drawdown and control efforts. This is leading to blenders and downstream customers requiring more volumes for replenishment activity.

Several refiners have received increased term orders for October and early November. Some blenders are now securing volumes close to contract minimums after these blenders took below those levels throughout parts of the year.

But blenders remain cautious about securing too much inventory, ahead of year-end tax assessments at the end of December, and demand is likely to soften by mid-November.

Available supplies are steady to snug as some refiners are prioritising diesel over base oil because of higher margins. A key Group I facility also remains shut down for planned maintenance that is likely to be completed by early November.

Mexico ban set to lengthen light grades

Mexico president Andrés Manuel López Obrador announced on 24 October a ban on all base oils, multiple petrochemicals and other fuels and fuel blending materials effective

Oil products premiums				
	\$/USG		\$/bl	
	Price	±	Price	±
Heating oil premium to WTI	0.70	+0.02	29.30	+0.73
Heating oil premium to VGO 2%	0.49	+0.02	20.71	+1.15
SN 500 premium to heating oil	0.90	+0.10	37.87	+4.15

Oil products				
	\$/USG		\$/bl	
	Price	±	Price	±
NYH heating oil barge	2.68	-0.13	112.51	-5.43
USGC 10ppm diesel 62 cargo	2.91	-0.18	122.09	-7.61

Argus USGC domestic prices								
	\$/USG				\$/t			
	Low	Mid	High	±	Low	Mid	High	±
Group I								
SN 150	3.32	3.40	3.48	nc	1,006	1,030.00	1,054	nc
SN 500	4.74	4.82	4.90	-0.03	1,413	1,436.50	1,460	-8.50
Bright stock	5.79	5.87	5.95	-0.03	1,702	1,725.50	1,749	-9.00
Group II								
N100	3.63	3.71	3.79	nc	1,125	1,150.00	1,175	nc
N220	3.74	3.82	3.90	+0.04	1,141	1,165.50	1,190	+12.50
N600	5.39	5.47	5.55	-0.04	1,617	1,641.00	1,665	-12.00
Group III								
4cst	5.33	5.41	5.49	-0.06	1,679	1,704.00	1,729	-19.00
6cst	4.34	4.42	4.50	-0.06	1,367	1,392.50	1,418	-18.50
8cst	4.32	4.40	4.48	-0.06	1,361	1,386.00	1,411	-19.00

Volume: 50t minimum

Argus USGC Group I bulk export prices								
	\$/USG				\$/t			
	Low	Mid	High	±	Low	Mid	High	±
SN 150 fob	2.86	2.94	3.02	nc	867	891.00	915	nc
SN 500 fob	3.50	3.58	3.66	-0.03	1,043	1,067.00	1,091	-9.00
Bright stock fob	4.37	4.45	4.53	-0.03	1,285	1,308.50	1,332	-9.00

Volume: 1,000t minimum

Argus USGC Group II bulk export prices								
	\$/USG				\$/t			
	Low	Mid	High	±	Low	Mid	High	±
N100 fob	3.06	3.14	3.22	nc	949	973.50	998	nc
N220 fob	3.03	3.11	3.19	+0.03	924	948.50	973	+9.00
N600 fob	3.77	3.85	3.93	-0.04	1,131	1,155.00	1,179	-12.00

Volume: 1,000t minimum

Argus USGC naphthenic domestic prices								
	\$/USG				\$/t			
	Low	Mid	High	±	Low	Mid	High	±
Pale oil 60	4.27	4.35	4.43	nc	1,265	1,289.00	1,313	nc
Pale oil 100	4.70	4.78	4.86	nc	1,378	1,401.00	1,424	nc
Pale oil 500	4.82	4.90	4.98	nc	1,385	1,408.00	1,431	nc
Pale oil 2000	4.80	4.88	4.96	nc	1,369	1,392.00	1,415	nc

Volume: 20t minimum

Argus USGC naphthenic bulk export prices								
	\$/USG				\$/t			
	Low	Mid	High	±	Low	Mid	High	±
Pale oil 60 fob	4.07	4.15	4.23	nc	1,206	1,229.50	1,253	nc
Pale oil 100 fob	4.51	4.59	4.67	nc	1,322	1,345.50	1,369	nc
Pale oil 500 fob	4.60	4.68	4.76	nc	1,322	1,345.00	1,368	nc
Pale oil 2000 fob	4.63	4.71	4.79	nc	1,321	1,344.00	1,367	nc

Volume: 1,000t minimum

US

immediately.

The ban allows blenders in Mexico 30 days to acquire the necessary permits to import the banned substances, but some shipments of trucks and rail cars have already been stopped at the US-Mexico border.

This is pushing some US Gulf coast (USGC) sellers to pull back railcars from Brownsville, Texas to limit tightness on shipping availability.

The ban is an effort to limit the import of fuel and blending components in ways that break or skirt tax and fuel theft laws, according to the government.

Several US Group II refiners have been targeting the Mexican base oil market with light and extra-light grades to sell into the fuel extending market.

Weaker demand from Mexico is likely to pressure several US Gulf coast (USGC) Group II refiners to offer those grades into lower-priced markets such as India or the Mideast Gulf. Mexico is the biggest export market of base oils for the US.

Domestic lubricant prices rising

Several blenders have experienced higher finished lubricant orders in the second half of October and expect to pass along increases given tighter supplies. Other blenders have experienced steady demand but not faced price competition on lubricants, particularly Group II-based products.

Some blenders are working to push back on recently announced additive increases of up to 8-12pc for mid-November. Two additive manufacturers have announced increases and two have not made any public increases.

Some blenders expect that a portion of the increases will be passed on. The full amount will face challenges from blenders because of ample supplies and weaker demand.

Heavy grades fall, mid-vis grades up

Supplies of Group I heavy neutrals, bright stock and Group II heavy grades are lengthening given increased imports from several regions. Demand is also falling based on seasonal factors.

Some USGC refiners continue to look to Brazil and west Africa to move surplus volumes, but prices are less attractive than in domestic markets.

US mid-viscosity Group II prices are rising owing to tighter supplies. Several producers have cut production in efforts to maximise Group III yields. Another key seller of mid-viscosity Group II grades is not offering surplus volumes into the market.

Feedstocks				
	\$/USG		\$/bl	
	Price	±	Price	±
Nymex WTI crude front month	1.98	-0.15	83.21	-6.16
Argus Sour Crude Index (ASCI™)	1.97	-0.11	82.65	-4.74
USGC low sulphur VGO 0.5% cargo	2.21	-0.13	92.80	-5.58
USGC high sulphur VGO 2% cargo	2.19	-0.15	91.80	-6.58

Feedstocks premiums				
	\$/USG		\$/bl	
	Price	±	Price	±
SN 500 premium to WTI	1.60	+0.12	67.17	+4.89
SN 500 premium to ASCI™	1.61	+0.08	67.73	+3.47
SN 500 premium to VGO 2%	1.39	+0.12	58.58	+5.31

US SN 500 forward prices			\$/USG		\$/t	
	Low	High	±	Low	High	±
Nov 2023	3.56	3.61	-0.03	1,059.40	1,074.30	-8.95
Dec 2023	3.46	3.51	-0.02	1,030.15	1,045.05	-6.30
Jan 2024	3.40	3.45	-0.02	1,012.55	1,027.45	-5.35
1Q 2024	3.35	3.40	-0.02	998.35	1,013.25	-4.90
2Q 2024	3.19	3.24	-0.02	951.40	966.30	-3.75

The price shows the implied forward-curve base oil price required to maintain its existing profit margin relative to Nymex heating oil futures.
Refer to www.argusmedia.com for methodology

US SN 500 forward premium to heating oil				
	\$/USG		\$/t	
	Midpoint	±	Midpoint	±
Nov 2023	0.48	+0.01	141.80	+1.55
Dec 2023	0.57	-0.01	171.10	-1.05
Jan 2024	0.63	-0.01	188.70	-2.10
1Q 2024	0.68	-0.01	202.65	-2.95
2Q 2024	0.84	-0.01	250.30	-3.00

The premium shows the implied forward-curve profitability of job US export SN 500 relative to Nymex heating oil futures.
Refer to www.argusmedia.com for methodology

Group III prices fall on weaker demand

Group III prices are falling because of weaker demand, a more competitive market for related lubricants and increasing supplies.

Several blenders are pressuring their Group III suppliers for lower prices because of falling prices for downstream full-synthetic lubricants. Some market participants expect that falling prices for these lubricants is being driven by efforts to gain market share.

Others participants see weaker demand for these lubricants because of the ongoing US auto workers' strike, which affects full-synthetic lubricants more than conventional ones.

Group III supplies are also increasing as several domestic refiners ramp up production at the expense of Group II output. A key importer from the Mideast Gulf also likely has more available spot volumes.

NAPHTHENIC BASE OILS

US naphthenic spot prices are steady as crude oil values have fallen, balancing a snug supply-demand situation.

There is some downward pressure on heavy naphthenics grades because of surplus availability and weaker seasonal demand. But market participants have not yet reported refiners lowering offer levels in efforts to reduce inventories.

Those surplus supplies are expected to tighten as a key refiner takes a planned one-month turnaround in November. The refiner expects to have sufficient inventories, particularly for light-viscosity grades, to fulfill term obligations.

Demand for light naphthenic grades remains firm and supplies are tight. Buyers are continuing to look for transformer oil and are willing to pay a premium for light naphthenics to produce it.

Some naphthenic refiners are expected to experience weaker demand as the Mexican government is banning imports of all base oils. Some of those refiners can shift production toward diesel and other products.

Vessel enquiries: Americas				t
Loading port	Next port	B/L Date	Volume	
Antwerp	Rio De Janeiro	Nov	2500	
WCI	Rio De Janeiro	Oct	5000	
Source: shipping agents, brokers				

LATIN AMERICA

Group II base oil demand in Brazil remains firm as supplies remaining tight because of ongoing maintenances at domestic refineries.

A major refinery started a planned maintenance in October that is likely to last for at least 60 days. Several blenders have asked for full term volumes but been unable to secure them from the refiner. Some blenders have also had difficulties with ensuring the product meets full specifications.

Another key refiner is coming back on line after a third-quarter maintenance. But some buyers have struggled to receive projected volumes from the refiner in October.

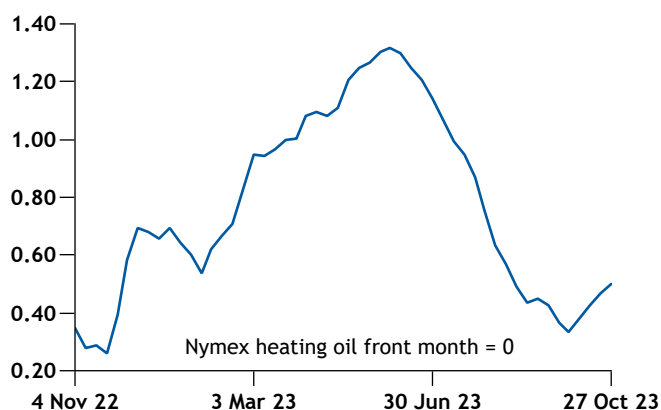
Several cargoes of US Gulf coast (USGC) material which was set to arrive in Brazil by early October remains delayed. This is pushing some blenders to look for alternative product from the Asia-Pacific and Europe. Prices from those regions were deemed competitive but logistical issues and vessel tightness are preventing blenders from finalising purchases.

Brazilian domestic reference prices for November will increase for all grades. These increases will take effect from 1 November and be reflected in next week's Argus Brazil domestic Group I reference price table.

Brazil domestic Group I reference prices						
	R\$/l *			\$/t		
	Price	±	%	Price	±	%
Group I						
SN 70	6.14	+0.98	16.0%	1,532.00	nc	0.0%
SN 150	5.84	+0.48	8.2%	1,340.00	nc	0.0%
SN 300	6.26	+0.30	4.8%	1,421.00	nc	0.0%
SN 500	6.65	+0.13	2.0%	1,491.00	nc	0.0%
Bright stock	8.45	nc	0.0%	1,874.00	nc	0.0%
* prices in Brazilian real/litre effective from 01 Oct 23						

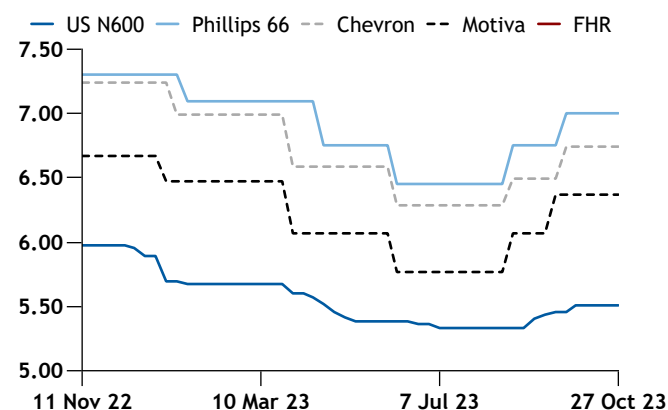
US SN 500 premium to heating oil

\$/USG



US domestic N600 vs posted prices

\$/USG



AMERICAS POSTED PRICES

\$/USG

Group I *												
	ExxonMobil Gulf coast			HollyFrontier			Paulsboro Refining east coast			Calumet Shreveport		
	Effective	\$/USG	±	Effective	\$/USG	±	Effective	\$/USG	±	Effective	\$/USG	±
70/75				19 Sep 23	5.28	+0.20						
100	20 Sep 23	5.39	+0.20	19 Sep 23	5.28	+0.20	25 Sep 23	5.64	+0.20			
150	20 Sep 23	5.29	+0.20	19 Sep 23	5.46	+0.20	25 Sep 23	5.44	+0.20			
250				19 Sep 23	5.47	+0.20						
300/350	20 Sep 23	5.46	+0.20									
500				19 Sep 23	6.82	+0.20	25 Sep 23	6.63	+0.20			
600/650	20 Sep 23	6.49	+0.20							25 Sep 23	6.65	+0.20
700							25 Sep 23	6.66	+0.20			
Bright stock	20 Sep 23	7.86	+0.00	19 Sep 23	7.74	+0.00	09 Aug 23	8.01	+0.20	11 Aug 23	7.84	+0.20

Group II *									
	Excel Paralubes Gulf coast			Chevron Gulf coast			Motiva Gulf coast		
	Effective	\$/USG	±	Effective	\$/USG	±	Effective	\$/USG	±
70	18 Sep 23	5.79	+0.25						
100/110	18 Sep 23	5.95	+0.25	19 Sep 23	6.29	+0.30	15 Sep 23	4.92	+0.30
220/225	18 Sep 23	5.95	+0.25	19 Sep 23	5.86	+0.25	15 Sep 23	5.44	+0.30
600	18 Sep 23	7.00	+0.25	19 Sep 23	6.74	+0.25	15 Sep 23	6.37	+0.30

Group II *									
ExxonMobil Gulf coast				Calumet Shreveport			Petro-Canada Mississauga		
	Effective	\$/USG	±	Effective	\$/USG	±	Effective	\$/USG	±
70							19 Sep 23	5.90	+0.30
80				25 Sep 23	5.84	+0.30			
100				25 Sep 23	5.71	+0.30	19 Sep 23	5.74	+0.30
150				25 Sep 23	6.24	+0.30			
200/220	20 Sep 23	6.46	+0.15				19 Sep 23	6.00	+0.30
325				25 Sep 23	6.75	+0.30			
350							19 Sep 23	6.58	+0.30
650							19 Sep 23	7.15	+0.30

Group II+ *												
	SK Lubricants Gulf coast			Motiva Gulf coast			ExxonMobil Gulf coast			Petro-Canada Mississauga		
	Effective	\$/USG	±	Effective	\$/USG	±	Effective	\$/USG	±	Effective	\$/USG	±
50/60				15 Sep 23	5.95	+0.15						
65										19 Sep 23	7.83	+0.20
70/80	01 Jul 23	6.93	-0.05	15 Sep 23	5.95	+0.15				19 Sep 23	7.59	+0.20
100												
110/130							20 Sep 23	7.29	+0.20			

Group III *									
	SK Lubricants Gulf coast			Motiva Gulf coast			Petro-Canada Mississauga		
	Effective	\$/USG	±	Effective	\$/USG	±	Effective	\$/USG	±
4cst	01 Jul 23	8.20	-0.15	15 Sep 23	7.15	+0.15	19 Sep 23	9.52	+0.15
6cst	01 Jul 23	8.25	-0.15	15 Sep 23	6.85	+0.15	19 Sep 23	9.37	+0.15
8cst	01 Jul 23	8.33	-0.15	15 Sep 23	7.05	+0.15	19 Sep 23	9.47	+0.15

Group II+ * Safety-Kleen						
	midcontinent and Canada			west coast		
	Effective	\$/USG	±	Effective	\$/USG	±
110/130	15 Sep 23	7.47	+0.30	15 Sep 23	7.62	+0.30
240	15 Sep 23	7.92	+0.30	15 Sep 23	8.07	+0.30

Avista Oil midwest/east coast *			
	Effective	\$/USG	±
Group II N150	25 Sep 23	7.20	+0.30
Group III 4cst	25 Sep 23	7.27	+0.15

* the ± column shows the price difference between the current and previous posted price.

AMERICAS POSTED PRICES

\$/t

Group I *												
	ExxonMobil Gulf coast			HollyFrontier			Paulsboro Refining east coast			Calumet Shreveport		
	Effective	\$/t	±	Effective	\$/t	±	Effective	\$/t	±	Effective	\$/t	±
70/75				19 Sep 23	1,636.80	+62.00						
100	20 Sep 23	1,660.12	+61.60	19 Sep 23	1,626.24	+61.60	25 Sep 23	1,731.48	+61.40			
150	20 Sep 23	1,624.03	+61.40	19 Sep 23	1,676.22	+61.40	25 Sep 23	1,642.88	+60.40			
250				19 Sep 23	1,662.88	+60.80						
300/350	20 Sep 23	1,654.38	+60.60									
500				19 Sep 23	2,059.64	+60.40	25 Sep 23	1,989.00	+60.00			
600/650	20 Sep 23	1,934.02	+59.60							25 Sep 23	1,981.70	+59.60
700							25 Sep 23	1,971.36	+59.20			
Bright stock	20 Sep 23	2,334.42	+0.00	19 Sep 23	2,298.78	+0.00	09 Aug 23	2,370.96	+59.20	11 Aug 23	2,326.83	+59.36

Group II *										
	Excel Paralubes Gulf coast			Chevron Gulf coast			Motiva Gulf coast			
	Effective	\$/t	±	Effective	\$/t	±	Effective	\$/t	±	
70	18 Sep 23	1,794.90	+77.50							
100/110	18 Sep 23	1,856.40	+78.00	19 Sep 23	1,943.61	+92.70	15 Sep 23	1,525.20	+93.00	
220/225	18 Sep 23	1,826.65	+76.75	19 Sep 23	1,787.30	+76.25	15 Sep 23	1,659.20	+91.50	
600	18 Sep 23	2,114.00	+75.50	19 Sep 23	2,032.11	+75.38	15 Sep 23	1,923.74	+90.60	

Group II *										
	ExxonMobil Gulf coast			Calumet Shreveport			Petro-Canada Mississauga			
	Effective	\$/t	±	Effective	\$/t	±	Effective	\$/t	±	
70							19 Sep 23	1,829.00	+93.00	
80				25 Sep 23	1,802.22	+92.58				
100				25 Sep 23	1,754.45	+92.18	19 Sep 23	1,767.12	+92.36	
150				25 Sep 23	1,911.69	+91.91				
200/220	20 Sep 23	1,970.30	+45.75				19 Sep 23	1,832.40	+91.62	
325				25 Sep 23	2,056.52	+91.40				
350							19 Sep 23	1,995.65	+90.99	
650							19 Sep 23	2,171.10	+91.10	

Group II+ *												
	SK Lubricants Gulf coast			Motiva Gulf coast			ExxonMobil Gulf coast			Petro-Canada Mississauga		
	Effective	\$/t	±	Effective	\$/t	±	Effective	\$/t	±	Effective	\$/t	±
50/60				15 Sep 23	1,918.88	+48.38						
65										19 Sep 23	2,482.11	+63.40
70/80	01 Jul 23	2,182.95	-15.75	15 Sep 23	1,904.00	+48.00						
100										19 Sep 23	2,386.98	+62.90
110/130							20 Sep 23	2,281.77	+62.60			

Group III *										
	SK Lubricants Gulf coast			Motiva Gulf coast			Petro-Canada Mississauga			
	Effective	\$/t	±	Effective	\$/t	±	Effective	\$/t	±	
4cst	01 Jul 23	2,583.00	-47.25	15 Sep 23	2,266.12	+47.54	19 Sep 23	2,990.33	+47.12	
6cst	01 Jul 23	2,598.75	-47.25	15 Sep 23	2,144.05	+46.95	19 Sep 23	2,950.24	+47.23	
8cst	01 Jul 23	2,623.95	-47.25	15 Sep 23	2,206.65	+46.95	19 Sep 23	2,953.60	+46.78	

Group II+ * Safety-Kleen						
	midcontinent and Canada			west coast		
	Effective	\$/t	±	Effective	\$/t	±
110/130	15 Sep 23	2,328.40	+93.51	15 Sep 23	2,375.15	+93.51
240	15 Sep 23	2,454.41	+92.97	15 Sep 23	2,500.89	+92.97

Avista Oil midwest/east coast *			
	Effective	\$/t	±
Group II N150	25 Sep 23	2,240.50	+93.35
Group III 4cst	25 Sep 23	2,286.20	+47.17

* the ± column shows the price difference between the current and previous posted price.

The \$/t price is converted from the \$/USG price. Refer to www.argusmedia.com for methodology with the gallons-to-tonnes conversion factors.

MAINTENANCE AND SHUTDOWNS

Upcoming / recent base oil plant maintenance / shutdowns / closures					
Refiner	Location	Timing	Capacity	Capacity affected	Cause
Luberef	Jeddah, Saudi Arabia	Mid-2026	270,000 t/yr	All, Group I	Closure
ExxonMobil	PAC, Singapore	2025 for 2 months	660,000 t/yr	NA	Refinery turnaround
Cepsa	San Roque, Spain	Nov 2024	265,000 t/yr	All, Group I	Maintenance
SK Enmove	Ulsan, South Korea	Apr 2024	26,000 b/d	All, Group III	Maintenance
Petronas	Melaka, Malaysia	Late January 2024 for 50 days	280,000 t/yr	All, Group II/III	Refinery turnaround #
Petrobras	Rio de Janeiro, Brazil	Ely-Oct 2023 for 45 days	90 mn l/mth	All, Group I	Maintenance
ENEOS	Wakayama, Japan	16 Oct 2023	360,000 t/yr	All	Refinery closure
Formosa	Mailiao, Taiwan	13 Oct 2023 to 9 Dec 2023	600,000 t/yr	All, Group II	Maintenance
HF Sinclair	Tulsa, Oklahoma, US	End-Sep 2023 for 45 days	490,000 t/yr	All, Group I	Maintenance
BPCL	Mumbai, India	From mid-Sep 2023	180,000 t/yr	Partial, Group II	Refinery maintenance
Cosmo Oil	Yokkaichi, Japan	9 Sep 2023 to end-Sep 2023	175,000 t/yr	All	Electrical issue
HD Hyundai Shell	Daesan, South Korea	From 5 Sep 2023	1.2 mn t/yr	Partial	Run-cut
ENEOS	Mizushima A, Japan	Late-Aug 2023 for 3 months	225,000 t/yr	Full	Refinery maintenance
Henan Junheng	Henan, China	18 Aug 2023 for 1 month	400,000 t/yr	All, Group II	Catalyst change
Naftan	Novopolotsk, Belarus	From mid-Aug 2023 for 1 month	200,000 t/yr	Partial	Maintenance
Rosneft	Angarsk, Russia	Ely-Aug to mid-Sep 2023	250,000 t/yr	All	Maintenance
Acelen	Mataripe, Bahia, Brazil	Aug to Sep 2023 for 45 days	1,750 b/d	All, Group I	Maintenance
HD Hyundai Oilbank	Daesan, South Korea	25 Aug 2023 for 7 days	25,000 b/d	Full	Fire
HD Hyundai Shell	Daesan, South Korea	25 Aug 2023 for 7 days	1.2 mn t/yr	Full	Refinery fire
HD Hyundai Oilbank	Daesan, South Korea	10 Aug to 4 Sep 2023	25,000 b/d	Partial	Refinery maintenance
HD Hyundai Shell	Daesan, South Korea	From end-Jul to 4 Sep 2023	1.2 mn t/yr	Partial	Refinery maintenance
MOL	Szazhalombatta, Hungary	12 Jul 2023 to 26 Aug 2023	195,000 t/yr	All	Maintenance
Petronas	Melaka, Malaysia	8-14 Jul 2023	280,000 t/yr	All, Group II/III	Refinery turnaround
ENEOS	Mizushima A, Japan	5 Jul 2023 for 15 days	225,000 t/yr	All, Group I	Refinery fire
Hainan Handi	Hainan, China	Ely-Jul for 20 days	400,000 t/yr	All, Group II	Maintenance
Avista Oil	Peachtree City, Georgia, US	Late Jun for 1 week	1,250 b/d	All, Group II+/III	Maintenance
Tatneft	Nizhnekamsk, Russia	Mid-Jun 2023 for 1 month	186,000 t/yr	All	Maintenance
Heritage-Crystal Clean	Indianapolis, Indiana, US	Mid-Jun for 10 days	2,500 b/d	All, Group II+	Maintenance
Excel Paralubes	Westlake, Louisiana, US	Ely-Jun to 2H Jun 2023	22,200 b/d	All, Group II	Unplanned outage
S-Oil	Onsan, South Korea	End-May to mid-Jul 2023	41,000 b/d	All, Group II/III	Maintenance
Panjin Northen Asphalt	Liaoning, China	Late-May 2023 for 2 months	400,000 t/yr	All, Group II	Maintenance
SK-Repsol	Cartagena, Spain	11 May 2023 for 40 days	630,000 t/yr	All, Group III	Maintenance
MOH	Agioi Theodoroi, Greece	Mid-May to end-Jun 2023	224,000 t/yr	All, Group I	Maintenance
ENEOS	Kainan, Japan	May 2023 for 2 months	200,000 t/yr	Partial	Refinery maintenance
Chevron	Pascagoula, Mississippi, US	Late-Jun to Jul 2023	23,000 b/d	All	Catalyst change
ExxonMobil	Jurong, Singapore	May to mid-Jun 2023	2.25 mn t/yr	Partial, Group II	Refinery turnaround
ENI	Livorno, Italy	29 Apr to end-Jul 2023	600,000 t/yr	All, Group I	Maintenance
Calumet	Shreveport, Louisiana, US	2H Apr for 2 weeks	8,000 b/d	All, Group I/II	Maintenance
Rosneft	Novokuibyshevsk, Russia	Mid-Apr to late-May 2023	350,000 t/yr	All	Maintenance
Lukoil	Volgograd, Russia	Mid-Apr to ely-May 2023	560,000 t/yr	Partial	Maintenance
Lukoil	Perm, Russia	Mid-Apr to ely-May 2023	460,000 t/yr	Partial	Maintenance
Pertamina-SK	Dumai, Indonesia	01 Apr - mid-Apr 2023	9,000 b/d	All, Group III	Refinery fire
Sinopec Maoming	Guangdong, China	Apr - May 2023	700,000 t/yr	Partial, Group I/II	Maintenance
CNOOC Taizhou	Jiangsu, China	Apr 2023	400,000 t/yr	All	Maintenance
Shandong Huanghe	Shandong, China	End-Mar 2023 for 1 month	180,000 t/yr	All, Group II	Catalyst change
ExxonMobil	Port Jerome, France	21-29 Mar 2023	626,000 t/yr	Partial	Strike action
Total	Gonfreville, France	From 21 Mar 2023	240,000 t/yr	All	Strike action
Rosneft	Ufa, Russia	2H Mar to ely-May 2023	240,000 t/yr	Partial	Maintenance

Every effort has been made to verify information directly with appropriate company sources. Some information has been obtained from usually reliable sources, but cannot be officially confirmed with the refinery concerned. The list will be updated when new information becomes available. #Additional/updated plant data over the past week

MARKET FUNDAMENTALS

Upcoming / recent expansions / conversions / new plants					
Refiner	Location	Timing	New capacity	Grade	Expansion / New
IOC	Haldia, India	2027	270,000 t/yr	Group III	New
IOC	Chennai, India	2027	250,000 t/yr	Group II	Expansion
ReGen III	Texas City, US	NA	Up to 5,600 b/d	Re-refined Group II+/III	New
ReGen III	Alberta, Canada	NA	Up to 2,200 b/d	Re-refined Group II+/III	New
Modrica refinery	Modrica, Bosnia	NA	200,000 t/yr	Group III	Expansion
NA	Southeast Asia	NA	Up to 300,000 t/yr	Group II N150, N500	New
Luberef	Yanbu, Saudi Arabia	2026	175,000 t/yr	Group III	Conversion/new
Luberef	Yanbu, Saudi Arabia	2026	100,000 t/yr	Group II	Conversion/expand
ExxonMobil	Jurong, Singapore	2025	1mn t/yr	Group II N150, N600, high-vis base oils	New
Saudi Aramco/Sabic	Yanbu, Saudi Arabia	2025	NA	NA	New
IOC	Panipat, Delhi, India	2024-2025	540,000 t/yr	Group II/III	New
Avista Oil	Dollbergen, Germany	2024	NA	Group III re-refined	New
Fergana	Fergana, Uzbekistan	2024	Up to 100,000 t/yr	Group II/III 2cst, 4cst, 6cst and 8cst	New
BPCL	Mumbai, India	2024	450,000 t/yr	Group II N65, N150, N500, Group III 8cst	Expansion
Hongrun Petrochemical	Weifang, Shandong, China	Apr-May 2023	Up to 500,000 t/yr	Group III; white oils	New
IOC	Vadodara, Gujarat, India	2023	235,000 t/yr	Group II/III	New
Chevron	Richmond, California	Jul 2023	2,500 b/d	Group III 4cst and 6 cst	Conversion
Hainan Handi Sunshine	Hainan, Yangpu, China	Jan 2023	Up to 800,000 t/yr	Group II+/III 4cst	Conversion
Avista Green	Kalundborg, Denmark	2024-2026	Up to 40pc higher	Group I+ re-refinery	New
Xinji-Feitian	Hebei, China	Ely-Sep 2022	250,000 t/yr	Group II/III	New
Nuspec Oil	York, United Kingdom	2Q 2022	Up to 5,000 t/yr	Bio-bright stock	New
Tayras	Selimiye, Turkey	Mid-Jan 2022	40,000 t/yr	Group II+ re-refinery, N70, N110, N220	New
Hyundai Oilbank	Daesan, South Korea	Jan 2022	NA	Group II bright stock	New
EGEO Oil	Portugal	2022	14,000 t/yr	Group I re-refined SN 80/150/200/350	New
Hainan Handi	Hainan, China	2022	300,000 t/yr	Group II re-refinery	Cancelled
Gazpromneft	Omsk, Russia	Aug 2023	220,000 t/yr	Group II/III 2cst, 4cst, 6cst and 8cst	Expansion
Avista Green	Kalundborg, Denmark	End-2021	10-15pc higher	Group I+ re-refinery	Expansion
CNOOC/Bora Petchem	Liaoning, China	End-2021	1.2mn t/yr	Naphthenic	Expansion
Ilboc (Sk-Repsol)	Cartagena, Spain	2H 2021	Up to 50pc higher	Group II/III	Expansion
Sinopec	Yanshan, China	Jun-Jul 2021	250,000 t/yr	Group II	Expansion
Panjin Haoye	Liaoning, China	Apr 2021	200,000 t/yr	Group II N100, N150 and N350	New
Lukoil	Volgograd, Russia	Feb 2021	NA	Group II	New
Shenghong Petrochemical	Lianyungang, China	2021	620,000 t/yr	Group II/III	Cancelled
Sasol	Louisiana, US	After 2020	NA	GTL	Cancelled
Qinghe Petrochemical	Shandong, China	Jun 2020	600,000 t/yr	Group III/II	New
Ningbo Bohui	Zhejiang, China	2Q 2020	300,000 t/yr	Group II	New
Gen III Oil Corporation	Bowden, Canada	2Q 2020	2,240 b/d	700 b/d Group II, 1,540 b/d Group III	New
HILL	Chimkent, Kazakhstan	2020	250,000 t/yr	Group I/II/III	New
Liaohe Petrochemical	Liaoning, China	4Q 2019	400,000 t/yr	Naphthenic base oils	New
Sinopec	Jingmen, China	End-Oct 2019	550,000 t/yr	Group II heavy and white oils	New
Petrochina	Karamay, China	Oct 2019	30,000 t/yr each	Naphthenic bright stock, rubber oil	Expansion
Neste	California, US	3Q 2019	NA	Group III	Conversion
ExxonMobil	Jurong, Singapore	2Q 2019	100,000 t/yr	Group II	Expansion
Hengli Petrochemical	Dalian, China	Apr 2019	600,000 t/yr	Group II and III	New
ExxonMobil	Rotterdam, Netherlands	1Q 2019	900,000 t/yr	Group II	New
Puraglobe	Tampa, US	1Q 2019	50,000 t/yr	Group III	New
Henan Junheng	Henan, China	1Q 2019	400,000 t/yr	Group II	New
Lub-rref Bangladesh Ltd	Chittagong, Bangladesh	1Q 2019	50,000 t/yr	Group II N70, N150, N500/600 re-refinery	New

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#Additional/updated plant data over the past week

MARKET NEWS AND ANALYSIS

China's Sep base oils imports rise to 3-month high

China's base oils imports climbed in September to a three-month high, driven by a seasonal recovery in demand and tightening spot availability in the country.

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Singapore's base oil exports fall in September

Singapore's base oil exports declined in September as buyers in China and Hong Kong curbed purchases.

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Indian demand rises in contrast to wider Asia

India's base oil demand has picked up after the monsoon season as industrial and transportation activities rise, in contrast with subdued demand in most parts of Asia.

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German base oils market sinks in 2Q

A plunge in German base oils output in the second quarter coincided with a fall in exports and shrinking domestic demand and imports.

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Spanish exports, sales at 3-year high for July

Spanish base oil exports and domestic demand recovered to the highest levels for July since 2020, after dropping sharply in the second quarter because of refinery maintenance.

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US July base oil, lube output up on weaker fuels

US production of base oils and lubricants rose in July over the prior month as refiners prioritized base oil output to curb inventories of competing fuels, particularly diesel.

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US naphthenic margins rise on weaker costs

US naphthenic base oil margins over crude oil rose last week as costs declined and prices held steady.

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US Group II margins rise on balanced supplies

US Group II base oil margins over feedstocks and competing fuels rose during the week ended 20 October as costs are lower and demand is rising for several key grades.

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Brazil's Lwart to up base oils re-refining capacity

Brazil's Lwart Solucoes Ambientais will invest R1bn (\$499mn) to increase its lubricant re-refining capacity by 50pc, allowing it to expand production of Group II base oils.

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