



ARGUS INTERNATIONAL LPG

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The most up-to-date Argus LPG methodology is available on www.argusmedia.com

Argus International LPG

The Argus International LPG report is a daily report that covers the market for internationally or openly traded liquefied petroleum gas. *Argus* price assessments for the International LPG report reflect a consensus of informed market opinion on daily bid/ask spreads for propane and butane and various natural gas liquids in each region.

Argus market specialists conduct comprehensive daily surveys of key market participants to collect trade information and gauge prevailing market sentiment. Through interrogative inquiry and analysis, the *Argus* market reporters consider a broad range of information before setting the price quotation. This includes information on fixed price and formula-related physical deals, market premiums, market discounts, reported but unconfirmed trades, tender results, netbacks, bids, offers, movements of the forward curve, spreads and supply and demand fundamentals including, but not limited to, inventories, weather and arbitrage between regions.

Argus publishes prices that report and reflect prevailing levels for open-market arm's length transactions (please see the Argus Global Compliance Policy for a detailed definition of arm's length).

Argus covers regional trade in the LPG markets of the Asia-Pacific, east-central Europe, northwest Europe, the Mediterranean and the US to reflect a daily consensus on the prices of the day. The quoted prices will reflect the consensus level of market activity at the end of the trading day in each region. In the absence of market liquidity, *Argus* will use its knowledge and experience, combined with a market consensus, to establish a perceived buy-sell range.

This method minimises the chances of distortion or inconsistency in approach that accompanies other methodologies. It provides greater confidence to the users of the Argus International LPG report that the prices will be representative of the market and not distorted by unrepresentative factors. The price series are used extensively in third-party contracts, risk management contracts (such as swaps), internal price transfer, internal benchmarking, mark-to-market assessment and market analysis.

Reporting on LPG markets calls for a certain degree of judgment on the part of the reporter, especially when the market is opaque and confused. Deals are reported if they are confirmed by a reliable source, but the reporters will always use their judgment before establishing the final price assessments. This approach means reporters need to have a wide range of contacts. *Argus* reporters have to understand the market they are reporting. This rigorous approach guarantees precise, reliable and relevant assessments.

This methodology is updated regularly after extensive consultation with the industry. Any changes to the specifications behind the quotations will be announced in the relevant market reports and on www.argusmedia.com. Amendments to the methodology will be made when necessary to reflect the changes in the structure of trading and any changes in the pricing or contractual norms of each market.

The price assessments in Argus International LPG are based on market surveys that are conducted over the telephone and through electronic mail exchanges. *Argus* uses all appropriate informational sources to identify the prices prevailing in a market and does not restrict itself to one subsection of the market such as a single trading platform or any single informational channel. The market surveys are balanced in their approach and are conducted by well trained specialists who are part of a dedicated team responsible for the report.

Information from the survey is verified as best possible and archived in databases. The methodologies are detailed and transparent. A professional approach by trained staff monitored by experienced managers is a characteristic of the *Argus* tradition.

All assessments and formulas refer to the price on the day of the published report. The prices are for contracts under whatever general terms and conditions are accepted as the standard prevailing in that particular market.

All changes are on the last report (one working day previous).

Asian LPG Methodology

For the purposes of assessing the Far East Index for propane and butane, Argus establishes a viable buy-sell range at the timestamp. To accomplish this, Argus considers a wide range of information, including bids and offers, transactions, informed market views and the performance of other related markets.

Market information may not be consistent regarding prevailing price levels so if contradictory information regarding a viable buy-sell range is in the market Argus will give the greatest weight to deals for cargoes that conform to Argus' published specification done in the run up to the timestamp (currently 5:30 p.m. Singapore time). For inclusion in the FEI, deals must be judged by Argus to be repeatable and representative.

Bid and offers must be firm, made in the open market, not subject to special conditions and be valid for a period of time during which a deal could reasonably be transacted. Similarly if a firm bid and/or offer is made after a deal but before the timestamp, Argus will consider this bid and/or offer if it is found to be representative. This bid and/or offer may be viewed by Argus as being more representative of the market at the timestamp than a single non-repeatable deal and may be used as the basis for the price assessment. In the absence of any firm bids and/or offers, Argus shall use inputs from its regular market surveys, plus any other inputs from brokers, market participants or market portals, to establish a valid buy-sell range. This buy-sell range shall be determined using informed market opinions and other indicators judged by Argus to be indicative of market values.

Argus will review swaps and other derivatives markets with an eye toward determining forward market structure and direction. Argus will also refer to the swaps markets to evaluate the outright value of floating prices deals that are reported.

Market Structure

The Argus LPG assessments are for cargoes delivered to destination ports 25-40 days forward from the date of assessments. It is usual that part of this assessment period would be determined by market prices for one delivery period, and another part would be determined by different delivery period. In such cases, Argus will pro-rate the values of the relevant delivery periods. A spreadsheet detailing these inputs is available on a daily basis from Argus on request.

A significant volume of the LPG trade in the Eastern LPG markets consists of mixed cargoes that include approximately 11 thousand tons each of propane and butane. These cargoes typically are traded at a single price representing the value of both components. In the absence of market indicators for 22,000 ton cargoes of propane or butane, Argus will include 11,000t + 11,000t (known as 11-11) deals and bid/offer ranges in its assessments. This means that the midpoint value of 11-11 deals will be used and an informed consensus differential between propane and butane prices used to calculate individual propane and butane values from the 11,000t + 11,000t midpoint value.

If there is any discrepancy between 22,000 ton and mixed cargoes then the 22,000-ton price will set the Argus price quotation for 22,000 ton propane and 22,000 ton butane.

Mixed cargo quotations

Argus also publishes two mixed cargo quotations of 11,000t propane and 11,000t butane (11-11). One quotation is basis CFR Japan and the other CFR South China.

Argus will use a similar methodology as described above to establish a buy-sell range for these two quotes. Argus will consider a wide range of information, including bids and offers, transactions, informed market views and the performance of other related markets. Market information may not be consistent regarding prevailing price levels so if contradictory information regarding a viable buy-sell range is in the market Argus will give the greatest weight to deals for cargoes that conform to Argus' published specification done in the run up to the timestamp (currently 5:30 p.m. Singapore time). For inclusion in the mixed cargo quotes, deals must be judged by Argus to be repeatable and representative.

Bid and offers must be firm, made in the open market, not subject to special conditions and be valid for a period of time during which a deal could reasonably be transacted. Similarly if a firm bid and/or offer is made after a deal but before the timestamp, Argus will consider this bid and/or offer if it is found to be representative. This bid and/or offer may be viewed by Argus as being more representative of the market at the timestamp than a single non-repeatable deal and may be used as the basis for the price assessment. In the absence of any firm bids and/or offers, Argus shall use inputs from its regular market surveys, plus any other inputs from brokers, market participants or market portals, to establish a valid buy-sell range. This buy-sell range shall be determined using informed market opinions and other indicators judged by Argus to be indicative of market values.

Argus Asia-Pacific butane assessments

Argus will assess 22,000 ton butane prices in the following manner. During the periods of time when butane demand from the petrochemical sector is absent, Argus will assess butane prices as a price differential against propane prices, with the differential being obtained based on an informed consensus.

Such a price differential can be obtained through a variety of channels. This includes deriving from 11+11 quotes where a midpoint value of 11+11 is being used in combination with an informed consensus price spread between propane and butane, to derive butane values.

During the periods of time when butane demand from the petrochemical sector prevails, Argus may assess butane prices based on an economic relationship to naphtha prices.

China v Japan

The Far-East Index is an average of the daily CFR Japan and CFR S China prices published by Argus. Argus will separately assess each market. Argus will not make any presumption that one market is structurally lower or higher than the other. Argus will assess the different value of each market based only on information gathered in the market each day (see Far East Index section).

European LPG Methodology

For the purposes of assessing the cif ARA quotations for propane and butane, Argus establishes a viable buy-sell range at the timestamp. To accomplish this, Argus considers a wide range of information, including bids and offers, transactions, informed market views and the performance of other related markets. Market information may not be consistent regarding prevailing price levels so if contradictory information regarding a viable buy-sell range is in the market Argus will give the greatest weight to deals for cargoes that conform to Argus' published specification done in the run up to the timestamp (currently 4:30 p.m. London time). For inclusion in the Argus cif ARA assessments, deals must be judged by Argus to be repeatable and representative.

Bids and offers must be firm, made in the open market, not subject to special conditions and be valid for a period of time during which a deal could reasonably be transacted. Similarly if a firm bid and/or offer is made after a deal but before the timestamp, Argus will consider this bid and/or offer if it is found to be representative. This bid and/or offer may be viewed by Argus as being more representative of the market at the timestamp than a single non-repeatable deal and may be used as the basis for the price assessment. In the absence of any firm bids and/or offers, Argus shall use inputs from its regular market surveys, plus any other inputs from brokers, market participants or market portals, to establish a valid buy-sell range. This buy-sell range shall be determined using informed market opinions and other indicators judged by Argus to be indicative of market values.

Argus will review swaps markets with an eye toward determining forward market structure and direction. Argus will also refer to the swaps markets to evaluate the outright value of floating prices deals that are reported.

Market Structure

The Argus cif ARA propane assessment refers to cargoes to be delivered on a price basis cif Flushing with standard delivery options into the northwest European ports of Antwerp, Le Havre, Stenungsund and UKEC. The cargoes are for delivery 7-20 days forward from the date of assessment. It is usual that part of this assessment period would be determined by market prices for one delivery period, and another part would be determined by a different delivery period according to the shape of the forward curve. In such cases, Argus will assess the values of the relevant delivery periods. A spreadsheet detailing these inputs is available on a daily basis from Argus on request.

The Argus cif ARA butane assessment refers to cargoes to be delivered on a price basis cif Rotterdam/UKEC with standard delivery options into the UKWC. The cargoes are for delivery 5-17 days forward from the date of the assessment. It is usual for this delivery period to be assessed as flat. But if a strong forward market structure emerges, Argus will determine a price based on two delivery periods (as above). A spreadsheet detailing these inputs is also available on a daily basis from Argus on request.

Europe

Cif ARA (large cargoes)

Propane

Prices are in US dollars/tonne. Basis is cif ARA (including cif Flushing). The timing is for cargoes for delivery 7-20 days forward, eg: on 1 July the delivery period will be 8-21 July. The price quotation on 1 July will be an average of the 8-21 July period. The quotation reflects prices for the 20,500t propane market on vessels ranging in size from 16,000-84,000m³. The large cargo propane quotations are for field grade (95pc) propane, fully refrigerated. Product guidelines will conform to the specifications published in the current ToT (ten days' notice of a three-day delivery window) contract and to any revisions of this contract as accepted by Argus. Time stamp is 4.30pm London time.

In recent years, it has become common for participants in the market to transact deals that include both a fixed price and floating price component. For example, deals that are a 50-50 average of the Argus cif ARA assessment and a fixed price, are common. In such cases, Argus will use a variety of techniques to determine the value of the deal so that it can be considered in Argus' assessments. The techniques include examining the forward structure of the LPG swaps market, considering the value of the fixed portion of the deal and using other analytical techniques employed by the industry to derive a fair value for the deal. Argus will use these techniques as appropriate to derive a representative value for deals that

are priced on a fixed/floating price basis and consider such deals as warranted in its assessments.

Butane

Prices are in US dollars/tonne. Large butane cargoes are 7,000-12,000t. Basis is cif ARA (including cif Flushing)/UK east coast. The timing is for cargoes for delivery 5-17 days forward, eg: on 1 July the delivery period will be 6-18 July. The price quotation on 1 July will be an average of the 6-18 July period. The large cargo butane is for field grade mixed butane (20pc isobutane content), fully refrigerated. Time stamp is 4.30pm London time.

In recent years, it has become common for participants in the market to transact deals that include both a fixed price and floating price component. For example, deals that are a 50-50 average of the Argus cif ARA assessment and a fixed price, are common. In such cases, Argus will use a variety of techniques to determine the value of the deal so that it can be considered in Argus' assessments. The techniques include examining the forward structure of the LPG swaps market, considering the value of the fixed portion of the deal and using other analytical techniques employed by the industry to derive a fair value for the deal. Argus will use these techniques as appropriate to derive a representative value for deals that are priced on a fixed/floating price basis and consider such deals as warranted in its assessments.

Fob northwest Europe (small)

Propane

Prices are in US dollars/tonne. Small cargoes (coasters) are up to 2,000t. Basis is fob northwest Europe. The timing is for cargoes for lifting 3-15 days forward. The fob northwest Europe small cargo quotations are for pressurised vessels, up to 20pc olefins. Time stamp is 4.30pm London time.

Butane

Prices are in US dollars/tonne. Small cargoes (coasters) are up to 2,000t. Basis is fob northwest Europe. The timing is for cargoes for lifting 3-15 days forward. The fob northwest Europe small cargo quotations are for pressurised vessels, up to 20pc olefins. Time stamp is 4.30pm London time.

Cif ARA (small)

Propane

Prices are in US dollars/tonne. Small cargoes (coasters) are up to 2,000t. Basis is cif ARA. The timing is for cargoes for delivery 3-15 days forward. The cif northwest Europe small cargo quotations are for pressurised vessels, up to 20pc olefins. Time stamp is 4.30pm London time.

Butane

Prices are in US dollars/tonne. Small cargoes (coasters) are up to 2,000t. Basis is cif ARA. The timing is for cargoes for delivery 3-15 days forward. The cif northwest Europe small cargo quotations are for pressurised vessels, up to 20pc olefins. Time stamp is 4.30pm London time.

Fob ARA (barge)

Propane

Prices are in US dollars/tonne. Barges are up to 1,300t. Basis is fob ARA. The timing is for barges for lifting 2-10 days forward. The fob barge quotations are for pressurised vessels, up to 20pc olefins. Time stamp is 4.30pm London time.

Butane

Prices are in US dollars/tonne. Barges are up to 1,200t. Basis is fob ARA. The timing is for barges for lifting 2-10 days forward. The fob barge quotations are for pressurised vessels, up to 20pc olefins. Time stamp is 4.30pm London time.

Fca ARA (rail)

Propane

Prices are in US dollars/tonne. Rail is for 400-600t. Basis is fca (rail) ARA. The timing is for railcars lifting 2-10 days forward. The fca (rail) ARA quotation includes commercial and ex-terminal material. Time stamp is 4.30pm London time.

Butane

Prices are in US dollars/tonne. Rail is for 400-600t. Basis is fca (rail) ARA. The timing is for railcars lifting 2-10 days forward. The fca (rail) ARA quotation includes commercial and ex-terminal material. Time stamp is 4.30pm London time.

Cif Mediterranean (large)

Propane

Prices are in US dollars/tonne. Large cargoes are 5,000-20,500t. Basis is cif Lavera. The timing is for cargoes for delivery 3-15 days forward. The large cargo propane quotations are for field grade (95pc) propane, fully refrigerated. Time stamp is 4.30pm London time.

Butane

Prices are in US dollars/tonne. Large cargoes are 5,000-20,500t. Basis is cif Lavera. The timing is for cargoes for delivery 3-15 days forward. The large cargo butane quotations are for field grade mixed butane (20pc isobutane content), fully refrigerated. Time stamp is 4.30pm London time.

Fob Mediterranean (small)

Propane

Prices are in US dollars/tonne. Small cargoes (coasters) are up to 2,000t. Basis is fob Lavera. The timing is for cargoes for lifting 3-15 days forward. Small cargo assessments are for commercial grade. Small cargo (coasters) are pressurised vessels. Time stamp is 4.30pm London time.

Butane

Prices are in US dollars/tonne. Small cargoes (coasters) are up to 2,000t. Basis is fob Lavera. The timing is for cargoes for lifting 3-15 days forward. Small cargo assessments are for commercial grade.

Small cargo (coasters) are pressurised vessels. Time stamp is 4.30pm London time.

Fca Mediterranean (rail)

Propane

Prices are in US dollars/tonne for. Rail is 400-600t. Basis is fca (rail) Lavera. The timing is for railcars lifting 2-10 days forward. Railcars are for commercial grade. Time stamp is 4.30pm London time.

FSU

Argus RBS (Romania, Bulgaria, Serbia) propane-butane mix

Prices are in US dollars/tonne. Railcars are 100-500t. Basis is daf D'yakovo/Halmeu and Reni/Giurgiulești/Galati on the Ukraine-Romania border. The timing is for railcars lifting 5-30 days forward. Time stamp is 5.30pm Moscow time.

Fob Black Sea propane-butane mix

Prices are in US dollars/tonne. Small cargoes (coasters) are 1,000-4,000t. Basis is fob Ukrainian Black Sea Ports (Ilyichevsk and Kerch). The timing is cargoes for lifting 5-25 days forward. Time stamp is 5.30pm Moscow time.

Daf Brest propane-butane mix

Prices are in US dollars/tonne. Railcars are 100-1,000t. Basis is daf Brest (Belarus-Polish border). The timing is for railcars lifting 2-25 days forward. Time stamp is 5.30pm Moscow time. Argus does not include off specification or 'formula' transactions in its assessment.

Daf Brest propane

Prices are in US dollars/tonne. Railcars are 100-1,000t. Basis is daf Brest (Belarus-Polish border). The timing is for railcars lifting 2-25 days forward. Time stamp is 5.30pm Moscow time. Argus does not include off specification or 'formula' transactions in its assessment.

Daf UKRAINE propane-butane mix.

Basis is Gukovo (Russian - Ukrainian border) weekly. Railcars are 100-1,000t. The timing is for the railcars lifting 5-25 days forward. The stamp is 5.30 Moscow time. Argus does not include the specification or "formula" transactions in its assessment.

Asia-Pacific refrigerated cargoes

Gulf CP fob

Propane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Fob Gulf quotes are for 5,000-10,000t cargoes loading at Ras Tanura. The fob Mideast Gulf roll date from one month loading to the next will occur on the 10th of the month. Time stamp is 4.30pm London time.

Butane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Fob Gulf quotes are for 5,000-10,000t cargoes loading at Ras Tanura. The fob Mideast Gulf roll date from one month loading to the next will occur on the 10th of the month. Time stamp is 4.30pm London time.

Japan CP cfr

Propane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Cfr Japan quotes are for 20,000t cargoes for delivery to Kawasaki/Chiba (Japan). For refrigerated cargoes cfr Japan (CP plus), the roll date from first-half month delivery to second-half month delivery will occur on the 10th of the previous month. The roll date from second-half month delivery to first-half month delivery will occur on the 25th of the previous month. Time stamp is 5.30pm Singapore time.

Butane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Cfr Japan quotes are for 20,000t cargoes for delivery to Kawasaki/Chiba (Japan). For refrigerated cargoes cfr Japan (CP plus), the roll date from first-half month delivery to second-half month delivery will occur on the 10th of the previous month. The roll date from second-half month delivery to first-half month delivery will occur on the 25th of the previous month. Time stamp is 5.30pm Singapore time.

Japan cfr

Propane

Prices are in US dollars/tonne. Refrigerated cargoes are of field grade quality. The assessments are for 20,000t cargoes for delivery into Kawasaki/Chiba (Japan). The assessment is an average price for the period 25 - 40 days from the publication date. Argus will make a price assessment for each of the days in the 25 - 40 day forward period taking into account the price structure of the physical market. Physical prices are discussed in the market for different delivery periods in the 25 - 40 day forward period. The delivery periods are usually discussed as the first half and the second half of the month. So the Argus assessment for 25 - 40 day forward period, should prices be flat for each of these delivery periods, will be proportionate to the number of days for each half month delivery period within the 25 - 40 day forward period. The time stamp is 5.30pm Singapore time.

In recent years, it has become common for participants in the Asian CFR market to transact deals that include both a fixed price and floating price component. For example, deals that are a 50-50 average of the Far East Index and a fixed price, are common. In such

cases, *Argus* will use a variety of techniques to determine the value of the deal so that it can be considered in *Argus*' assessments. The techniques include examining the forward structure of the LPG swaps market, considering the value of the fixed portion of the deal and using other analytical techniques employed by the industry to derive a fair value for the deal. *Argus* will use these techniques as appropriate to derive a representative value for deals that are priced on a fixed/floating price basis and consider such deals as warranted in its assessments.

Butane

Prices are in US dollars/tonne. Refrigerated cargoes are of field grade quality. The assessments are for 20,000t cargoes for delivery into Kawasaki/Chiba (Japan). The assessment is an average price for the period 25 - 40 days from the publication date. Argus will make a price assessment for each of the days in the 25 - 40 day forward period taking into account the price structure of the physical market. Physical prices are discussed in the market for different delivery periods in the 25 - 40 day forward period. The delivery periods are usually discussed as the first half and the second half of the month. So the Argus assessment for 25 - 40 day forward period, should prices be flat for each of these delivery periods, will be proportionate to the number of days for each half month delivery period within the 25 - 40 day forward period. The time stamp is 5.30pm Singapore time.

In recent years, it has become common for participants in the Asian CFR market to transact deals that include both a fixed price and floating price component. For example, deals that are a 50-50 average of the Far East Index and a fixed price, are common. In such cases, *Argus* will use a variety of techniques to determine the value of the deal so that it can be considered in *Argus*' assessments. The techniques include examining the forward structure of the LPG swaps market, considering the value of the fixed portion of the deal and using other analytical techniques employed by the industry to derive a fair value for the deal. *Argus* will use these techniques as appropriate to derive a representative value for deals that are priced on a fixed/floating price basis and consider such deals as warranted in its assessments.

Japan cfr

Mixed 11+11

Prices are in US dollars/tonne. Refrigerated cargoes are of field grade quality. The assessments are for 22,000t cargoes divided equally between propane and butane for delivery into Kawasaki/Chiba (Japan). Prices are for a single, mixed cargo. The assessment is an average price for the period 25 - 40 days from the publication date. Argus will make a price assessment for each of the days in the 25 - 40 day forward period taking into account the price structure of the physical market. Physical prices are discussed in the market for different delivery periods in the 25 - 40 day forward period. The delivery periods are usually discussed as the first half and the second half of the month. So the Argus assessment for 25 - 40 day forward period, should prices be flat for each of these delivery periods, will be proportionate to the number of days for each half month delivery period within the 25 - 40 day forward period. The time stamp is 5.30pm Singapore time.

In recent years, it has become common for participants in the Asian CFR market to transact deals that include both a fixed price and floating price component. For example, deals that are a 50-50 average of the Far East Index and a fixed price, are common. In such cases, Argus will use a variety of techniques to determine the value of the deal so that it can be considered in Argus' assessments.

The techniques include examining the forward structure of the LPG swaps market, considering the value of the fixed portion of the deal and using other analytical techniques employed by the industry to derive a fair value for the deal. Argus will use these techniques as appropriate to derive a representative value for deals that are priced on a fixed/floating price basis and consider such deals as warranted in its assessments.

Taiwan CP cfr

Propane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Taiwan quotes are for 20,000t cargoes for delivery to Kaohsiung (Taiwan). For refrigerated cargoes cfr Taiwan (CP Plus), the roll date from first-half month delivery to second-half month delivery will occur on the 10th of the previous month. The roll date from second-half month delivery to first-half month delivery will occur on the 25th of the previous month. Time stamp is 5.30pm Singapore time.

Butane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Taiwan quotes are for 20,000t cargoes for delivery to Kaohsiung (Taiwan). For refrigerated cargoes cfr Taiwan (CP Plus), the roll date from first-half month delivery to second-half month delivery will occur on the 10th of the previous month. The roll date from second-half month delivery to first-half month delivery will occur on the 25th of the previous month. Time stamp is 5.30pm Singapore time.

East China CP cfr

Propane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Cfr east China are for 20,000t cargoes for delivery into Shanghai and Taicang in the Jiangsu Province for east China. For refrigerated cargoes cfr China (CP Plus), the roll date from first-half month delivery to second-half month delivery will occur on the 25th of the previous month. The roll date from second-half month delivery to first-half month delivery will occur on the 10th of the month. Time stamp is 5.30pm Singapore time.

Butane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi

Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Cfr east China are for 20,000t cargoes for delivery into Shanghai and Taicang in the Jiangsu Province for east China. For refrigerated cargoes cfr China (CP Plus), the roll date from first-half month delivery to second-half month delivery will occur on the 25th of the previous month. The roll date from second-half month delivery to first-half month delivery will occur on the 10th of the month. Time stamp is 5.30pm Singapore time.

East China cfr

Propane

Prices are in US dollars/tonne. Refrigerated cargoes are of field grade quality. The assessments are for 20,000t cargoes for delivery into Shanghai and Taicang in the Jiangsu Province of east China. The assessment is for the period 25 - 40 days from the publication date. The time stamp is 5.30pm Singapore time..

In recent years, it has become common for participants in the Asian CFR market to transact deals that include both a fixed price and floating price component. For example, deals that are a 50-50 average of the Far East Index and a fixed price, are common. In such cases, Argus will use a variety of techniques to determine the value of the deal so that it can be considered in Argus' assessments.

The techniques include examining the forward structure of the LPG swaps market, considering the value of the fixed portion of the deal and using other analytical techniques employed by the industry to derive a fair value for the deal. Argus will use these techniques as appropriate to derive a representative value for deals that are priced on a fixed/floating price basis and consider such deals as warranted in its assessments.

Butane

Prices are in US dollars/tonne. Refrigerated cargoes are of field grade quality. The assessments are for 20,000t cargoes for delivery into Shanghai and Taicang in the Jiangsu Province of east China. The assessment is for the period 25 - 40 days from the publication date. The time stamp is 5.30pm Singapore time.

In recent years, it has become common for participants in the Asian CFR market to transact deals that include both a fixed price and floating price component. For example, deals that are a 50-50 average of the Far East Index and a fixed price, are common. In such cases, Argus will use a variety of techniques to determine the value of the deal so that it can be considered in Argus' assessments. The techniques include examining the forward structure of the LPG swaps market, considering the value of the fixed portion of the deal and using other analytical techniques employed by the industry to derive a fair value for the deal. Argus will use these techniques as appropriate to derive a representative value for deals that are priced on a fixed/floating price basis and consider such deals as warranted in its assessments.

South China CP cfr

Propane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi

Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Cfr south China are for 20,000t cargoes for delivery into Shenzhen and Zhuhai in the Guangdong Province for south China. For refrigerated cargoes cfr China (CP Plus) the roll date from first-half month delivery to second-half month delivery will occur on the 25th of the previous month. The roll date from second-half month delivery to first-half month delivery will occur on the 10th of the month. Time stamp is 5.30pm Singapore time.

Butane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Cfr south China are for 20,000t cargoes for delivery into Shenzhen and Zhuhai in the Guangdong Province for south China. For refrigerated cargoes cfr China (CP Plus), the roll date from first-half month delivery to second-half month delivery will occur on the 25th of the previous month. The roll date from second-half month delivery to first-half month delivery will occur on the 10th of the month. Time stamp is 5.30pm Singapore time.

South China cfr

Propane

Prices are in US dollars/tonne. Refrigerated cargoes are of field grade quality. The assessments are for 20,000t cargoes for delivery into Shenzhen and Zhuhai in the Guangdong Province of south China. The assessment is an average price for the period 25 - 40 days from the publication date. Argus will make a price assessment for each of the days in the 25 - 40 day forward period taking into account the price structure of the physical market. Physical prices are discussed in the market for different delivery periods in the 25 - 40 day forward period. The delivery periods are usually discussed as the first half and the second half of the month. So the Argus assessment for 25 - 40 day forward period, should prices be flat for each of these delivery periods, will be proportionate to the number of days for each half month delivery period within the 20 - 40 day forward period. The time stamp is 5.30pm Singapore time.

In recent years, it has become common for participants in the Asian CFR market to transact deals that include both a fixed price and floating price component. For example, deals that are a 50-50 average of the Far East Index and a fixed price, are common. In such cases, Argus will use a variety of techniques to determine the value of the deal so that it can be considered in Argus' assessments. The techniques include examining the forward structure of the LPG swaps market, considering the value of the fixed portion of the deal and using other analytical techniques employed by the industry to derive a fair value for the deal. Argus will use these techniques as appropriate to derive a representative value for deals that are priced on a fixed/floating price basis and consider such deals as warranted in its assessments.

Butane

Prices are in US dollars/tonne. Refrigerated cargoes are of field grade quality. The assessments are for 20,000t cargoes for delivery into Shenzhen and Zhuhai in the Guangdong Province of south

China. The assessment is an average price for the period 25 - 40 days from the publication date. Argus will make a price assessment for each of the days in the 25 - 40 day forward period taking into account the price structure of the physical market. Physical prices are discussed in the market for different delivery periods in the 25 - 40 day forward period. The delivery periods are usually discussed as the first half and the second half of the month. So the Argus assessment for 25 - 40 day forward period, should prices be flat for each of these delivery periods, will be proportionate to the number of days for each half month delivery period within the 25 - 40 day forward period. The time stamp is 5.30pm Singapore time.

In recent years, it has become common for participants in the Asian CFR market to transact deals that include both a fixed price and floating price component. For example, deals that are a 50-50 average of the Far East Index and a fixed price, are common. In such cases, Argus will use a variety of techniques to determine the value of the deal so that it can be considered in Argus' assessments. The techniques include examining the forward structure of the LPG swaps market, considering the value of the fixed portion of the deal and using other analytical techniques employed by the industry to derive a fair value for the deal. Argus will use these techniques as appropriate to derive a representative value for deals that are priced on a fixed/floating price basis and consider such deals as warranted in its assessments.

South China cfr

Mixed 11+11

Prices are in US dollars/tonne. Refrigerated cargoes are of field grade quality. The assessments are for 22,000t cargoes divided equally between propane and butane for delivery into Shenzhen and Zhuhai in the Guangdong Province of south China. Prices are for a single, mixed cargo. The assessment is an average price for the period 25 - 40 days from the publication date. Argus will make a price assessment for each of the days in the 25 - 40 day forward period taking into account the price structure of the physical market. Physical prices are discussed in the market for different delivery periods in the 25 - 40 day forward period. The delivery periods are usually discussed as the first half and the second half of the month. So the Argus assessment for 25 - 40 day forward period, should prices be flat for each of these delivery periods, will be proportionate to the number of days for each half month delivery period within the 25 - 40 day forward period. The time stamp is 5.30pm Singapore time. In recent years, it has become common for participants in the Asian CFR market to transact deals that include both a fixed price and floating price component. For example, deals that are a 50-50 average of the Far East Index and a fixed price, are common. In such cases, Argus will use a variety of techniques to determine the value of the deal so that it can be considered in Argus' assessments. The techniques include examining the forward structure of the LPG swaps market, considering the value of the fixed portion of the deal and using other analytical techniques employed by the industry to derive a fair value for the deal. Argus will use these techniques as appropriate to derive a representative value for deals that are priced on a fixed/floating price basis and consider such deals as warranted in its assessments.

West coast India CP cfr

Butane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Refrigerated cargoes are of field grade quality. Cfr India quotes are for 10,000-15,000t cargoes for delivery into Kandla and Mangalore on the west coast of India. For refrigerated cargoes cfr India (CP Plus), the roll date from one month delivery to the next will occur on the 25th of the previous month. Time stamp is 5.30pm Singapore time.

Argus Far East Index

Propane

Prices are in US dollars/tonne. The Argus Far East Index is the average of the Argus Japan cfr propane quotation and the Argus South China cfr propane quotation.

Butane

Prices are in US dollars/tonne. The Argus Far East Index is the average of the Argus Japan cfr butane quotation and the Argus South China cfr butane quotation.

Asia-Pacific pressurised cargoes

South China CP cfr

Propane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Cfr south China pressurised cargo quotes are for 1,500 to 2,500t size for delivery into Zhuhai and Sherkou, south China. Pressurised cargoes are for deliveries of propane from either 20:80 or 30:70 propane:butane cargoes. For pressurised cargoes cfr the delivery window is 7-15 days from the date of publication. For pressurised cargoes (CP plus), the roll date from one month delivery to the next will occur on the 20th of the previous month. Time stamp is 5.30pm Singapore time.

Butane

Prices are in US dollars/tonne. CP basis is the month's CP (Saudi Contract Price) that is the underlying price for the CP differential. Period is the timing of lifting or delivery. Cfr south China pressurised cargo quotes are for 1,500-2,500t size for delivery into Zhuhai and Sherkou, south China. Pressurised cargoes are for deliveries of butane from either 20:80 or 30:70 propane:butane cargoes. For pressurised cargoes cfr, the delivery window is 7-15 days from the date of publication. For pressurised cargoes (CP plus), the roll date from one month delivery to the next will occur on the 20th of the previous month. Time stamp is 5.30pm Singapore time.

South China cfr

Propane

Prices are in US dollars/tonne. Cfr south China pressurised cargo quotes are for 1,500-2,500t size for delivery into Zhuhai and Sherkou,

south China. For pressurised cargoes cfr, the delivery window is 12-20 days from the date of publication. Pressurised cargoes are for deliveries of propane from either 20:80 or 30:70 propane:butane cargoes. Time stamp is 5.30pm Singapore time.

Butane

Prices are in US dollars/tonne. Cfr south China pressurised cargo quotes are for 1,500-2,500t size for delivery into Zhuhai and Sherkou, south China. For pressurised cargoes cfr, the delivery window is 12-20 days from the date of publication. Pressurised cargoes are for deliveries of butane from either 20:80 or 30:70 propane:butane cargoes. Time stamp is 5.30pm Singapore time.

Vietnam CFR

Propane

Prices are in US dollars/tonne. Cfr Vietnam pressurised cargo quotes are for 1,00-2,000t size for delivery into Ho Chi Minh City, south Vietnam. For pressurised cargoes cfr, the delivery window is 12-20 days from the date of publication. Pressurised cargoes are for deliveries of 30:70 propane:butane cargoes. Time stamp is 5.30pm Singapore time.

Butane

Prices are in US dollars/tonne. Cfr Vietnam pressurised cargo quotes are for 1,000-2,000t size for delivery into Ho Chi Minh City, south Vietnam. For pressurised cargoes cfr, the delivery window is 12-20 days from the date of publication. Pressurised cargoes are for deliveries of 30:70 propane:butane cargoes. Time stamp is 5.30pm Singapore time.

Americas Pipeline

Argus US natural gas liquids (NGL) trade range prices represent the market over the course of the entire trading day. Argus publishes the low and the high of deals done throughout the entire trading day for current "any month" markets. In order to qualify to set the low or high of the day, deals must meet the minimum volumes established in our methodology, they must meet the strict delivery, timing, and specification requirements in our methodology, and the deals must be confirmed. In illiquid markets, Argus makes an intelligent assessment of the range within which product could have traded, based on bids and offers through the entire day, movements in similar grades, and extensive polling of market participants.

Argus seeks to represent the entire trading day in its US assessments. The trading day is currently defined as 8:00 am – 4:00 pm Central Time (Houston Time) for all US markets assessed in the Argus International LPG.

"Any month" reflects trade in a forward contract for delivery anytime during the named month at seller's option. The first month assessed is the same as the current calendar month. Months roll at end of calendar month.

Mont Belvieu

Propane

Prices are in US cents/US gallon. Mont Belvieu refers to terminals and storage facilities near Mont Belvieu, Texas. LST: Lone Star Terminal storage. (Location previously known as LDH or TET.)

Non LST: FOB Enterprise storage. Volume is 10,000 bl minimum to set low or high range. Propane (C3) specification is, LST: 90% propane minimum, 5% propylene maximum. Non LST: 90% propane minimum, 5% propylene maximum, 2.5% butanes and heavier maximum.

Butane

Prices are in US cents/US gallon. Mont Belvieu refers to terminals and storage facilities near Mont Belvieu, Texas. LST: Lone Star Terminal storage. (Location previously known as LDH or TET.)

Non LST: FOB Enterprise storage. Volume is 10,000 bl minimum to set low or high range. Normal Butane (C4) specification is, LST: 94% normal butane minimum, 6% isobutane maximum, 2.5% propane maximum, 2% pentanes and heavier maximum.

Non LST: 94% normal butane minimum, 6% isobutane maximum, 0.35% propane and lighter maximum, 1.5% pentanes and heavier maximum, 0.35% olefins maximum.

Purity Ethane

Prices are in US cents/US gallon. Mont Belvieu refers to terminals and storage facilities near Mont Belvieu, Texas. Non LST: FOB Enterprise. Volume is 10,000 bl minimum to set low or high range. Purity Ethane (C2) specification is 95% ethane and ethylene minimum, 3% methane maximum, 3.5% propane and heavier maximum, 30 ppm wt maximum.

Ethane-Propane Mix

Prices are in US cents/US gallon. Mont Belvieu refers to terminals and storage facilities near Mont Belvieu, Texas. Non LST: FOB Enterprise. Volume is 10,000 bl minimum to set low or high range. Ethane-Propane Mix (E/P Mix) specification is 80% ethane, 20% propane.

Isobutane

Prices are in US cents/US gallon. Mont Belvieu refers to terminals and storage facilities near Mont Belvieu, Texas. Non LST: FOB Enterprise storage. Volume is 10,000 bl minimum to set low or high range. Isobutane (IC4) specification is 96% isobutane minimum, 4% normal butane maximum, 3% propane maximum.

Natural Gasoline

Prices are in US cents/US gallon. Mont Belvieu refers to terminals and storage facilities near Mont Belvieu, Texas. Non LST: FOB Enterprise storage. Volume is 10,000 bl minimum to set low or high range. Natural Gasoline (C5) specification is 6% normal butane and lighter maximum, 14 RVP maximum, 1000 ppm wt maximum.

US Gulf coast export FOB

Propane export cargo prices are assessed by adding a value for terminal loading fees to the Argus Mont Belvieu volume-weighted average price for non-LST propane. Timing therefore reflects the

same timing as Mont Belvieu current "any month". The value for terminal loading fees is arrived at by a market survey.

The volume is propane 44,000t refrigerated cargo. The basis is propane Non-LST (Enterprise) LPG export terminal, Houston Ship Channel. Propane (C3) specification is Non LST: 90% propane minimum, 5% propylene maximum, 2.5% ethane maximum, 2.5% butanes and heavier maximum.

Equivalent prices \$/t

Propane

Prices are in US dollars/tonne. The conversion factor is 522.3 USG/t. Based on Mont Belvieu Non-LST (Enterprise) storage.

Butane

Prices are in US dollars/tonne. The conversion factor is 453 USG/t. Based on Mont Belvieu Non-LST (Enterprise) storage

Ethane

Prices are in US dollars/tonne. The conversion factor is 737.99 USG/t. Based on Mont Belvieu Non LST: FOB Enterprise.

Mont Belvieu propane forward market

Argus publishes forward assessments for propane at Mont Belvieu. These prices are intelligent assessments of the best bid and best offer at a time stamp of 1:30 pm central time. Forward months reflect either swaps or forward market trades. Months roll at end of calendar month. Forward quarters reflect either swaps or forward market trades that are rateable volumes across three calendar months. The first quarter assessed will be the quarter following the current calendar quarter, and will roll at the end of the calendar quarter.

US Non LST averages

Propane and Butane

Prices are in US cents/US gallon. The average is the cumulative average of the calendar month which rolls on the first of the month.

International comparisons

Argus North Sea Index (ANSI™)

Propane

Prices are in US dollars/tonne. Prices are for the listed month. ANSI™ is a monthly index calculated on the last 5 days of the prior month Argus large cargo cif ARA quotations for propane, less a freight element which is set on an annual basis. This base level will be adjusted if the last 5 days average appears severely out of alignment with prevailing industry sentiment. The freight rate is based on a composite Contract of Affreightment (COA) rate for a 20,000t cargo for routes Braefoot Bay, Karsto, or Mongstad terminals to Antwerp, Flushing, or Terneuzen. The composite COA rate is based on a one load/two discharge.

Butane

Prices are in US dollars/tonne. Prices are for the listed month.

ANSI™ is a monthly index calculated on the last 5 days of the prior month Argus large cargo cif ARA quotations for butane, less a freight element which is set on an annual basis. This base level will be adjusted if the last 5 days average appears severely out of alignment with prevailing industry sentiment. The freight rate is based on a composite Contract of Affreightment (COA) rate for a 20,000t cargo for routes Braefoot Bay, Karsto, or Mongstad terminals to Antwerp, Flushing, or Terneuzen. The composite COA rate is based on a one load/two discharge.

Sonatrach fob Bethioua

Propane

Prices are in US dollars/tonne. Official selling price of Sonatrach for propane for the listed month.

Butane

Prices are in US dollars/tonne. Official selling price of Sonatrach for butane for the listed month.

Saudi Aramco

Propane

Prices are in US dollars/tonne. Official selling prices of Saudi Aramco for propane for the listed month.

Butane

Prices are in US dollars/tonne. Official selling prices of Saudi Aramco for butane for the listed month.

KPC (Kuwait)

Propane

Prices are in US dollars/tonne. Official selling prices of Kuwait Petroleum Company for propane for the listed month.

Butane

Prices are in US dollars/tonne. Official selling prices of Kuwait Petroleum Company for butane for the listed month.

Argus Middle East netback

Propane

Prices are in US dollars/tonne. The Argus Middle East netback is computed by subtracting the reported daily AG/Japan freight assessment for VLGC carriers from the Argus Far East Index for propane.

Butane

Prices are in US dollars/tonne. The Argus Middle East netback is computed by subtracting the reported daily AG/Japan freight assessment for VLGC carriers from the Argus Far East Index for butane.

Naphtha

Cif northwest Europe

Prices are in US dollars/tonne. Delivery is for 5-15 days forward, of

10,000-25,000t, 65-70pc minimum paraffins. Cutoff time for assessment is 4.30pm London time. For more details see Argus European Products Methodology.

Cif Mediterranean

Prices are in US dollars/tonne. Delivery is for 5-15 days forward, of 10,000-25,000t, 65-70pc minimum paraffins. Cutoff time for assessment is 4.30pm London time. For more details see the Argus European Products Methodology.

Cfr Japan

Prices are in US dollars/tonne. Delivery is for 45-75 days forward derived from the 45 to 60 and 60 to 75 day forward periods in the forward table of the Argus Asia-Pacific Products report, 25,000t, open specification 65pc minimum paraffins. The assessment time is 4.30pm Singapore time. For more details see the Argus Asia-Pacific Products Methodology.

Fob Mideast Gulf

Prices are in US dollars/tonne. The fob Mideast Gulf quotation is netted back from the Japan cfr naphtha quotation using LR1 freight (55,000t), two port loading average of Jubail/Ruwais to Quoin Island and Mina al-Ahmadi/Ras Tanura to Quoin Island, two port discharge Chiba/Mizushima plus 50pc of the Saudi port charge. For more details see the Argus Asia-Pacific Products Methodology.

LPG freight assessments

VLGC AG-Japan

Prices are in US dollars/tonne. Spot freight assessments provided daily for 40,000t to 44,000t Very Large Gas Carriers (VLGC) size cargoes loading AG (Ras Tanura) to Japan (Chiba).

1,800t Tees-Lisbon

Prices are in US dollars/tonne. Spot freight quotes provided daily for 1,800t Tees to Lisbon (butane).

1,800t Tees-ARA

Prices are in US dollars/tonne. Spot freight quotes provided daily for 1,800t Tees to ARA.

Northwest Europe

Averages

Cif ARA large cargo

Prices are in US dollars/tonne. The Argus cif ARA large cargo quotation is the arithmetic average of the prices published every day in a month.

Fob ARA barge

Prices are in US dollars/tonne. The Argus fob ARA barge quotation is the running average in which the last data point will be assumed to be the data point for the remaining days of the month.

Crude price

Prices are in US dollars/barrel. The Dated price is the main price

marker for North Sea crude. It is calculated under the Argus Dated BFO methodology (see *Argus Crude Methodology for more details*).

ICE Brent futures settlement

Prices are in US dollars/barrel. Prices are the settlement prices for the IntercontinentalExchange's Brent contract for three months forward

International swaps

Forward markets

Propane swaps northwest Europe

Prices are in US dollars/tonne. Swaps in northwest Europe are for six months and three quarters forward. Swap months roll on the first working day after the 15th of the month. Swap quarters roll on the first working day after the 15th of the month. Time stamp is 4.30pm London time.

Naphtha swaps northwest Europe

Prices are in US dollars/tonne. Swaps in northwest Europe are for three months forward. The last day of the quotation of the first month of the forward swaps table will be the 15th of that month. Time stamp is 4.30pm London time.

Propane CP swaps Middle East

Prices are in US dollars/tonne. The minimum swap volume for the CP swaps is 1,000t. Forward propane swaps quotations are for the three forward months assessments of the Contract Price (CP). The quotes for the CP swaps will roll forward to the next month on the first working day after the new CP is issued (e.g. if the October CP is issued on the 29th of September, the swaps front month will roll from September to October on that day). Time stamp is 4.30pm London time.

Far East Index propane swaps

Prices are in US dollars/tonne. The minimum swap volume for the Argus Far East Index swaps is 1,000t. Forward propane swaps quotations are for the three forward months assessments of the Argus Far East Index. The quotations will roll on the first working day after the 15th of the month. Time stamp is 4.30pm London time.

Middle East

Fob averages

Propane

Prices are in US dollars/tonne. The Argus Middle East fob average is the average of the spot premium for additional Saudi volumes trading out of Yanbu and Ras Tanura which is calculated on a monthly basis and which rolls on the 10th of the month. So on the 10th of January, Argus will begin quoting a cumulative average for February.

Butane

Prices are in US dollars/tonne. The Argus Middle East fob average is the average of the spot premium for additional Saudi volumes trading out of Yanbu and Ras Tanura which is calculated on a monthly basis

and which rolls on the 10th of the month. So on the 10th of January, Argus will begin quoting a cumulative average for February.

Asia-Pacific

Far East Index averages

Propane

Prices are in US dollars/tonne. The Argus Far East Index average is accumulated on a calendar month basis, rolling on the first working day of the month.

Butane

Prices are in US dollars/tonne. The Argus Far East Index average is accumulated on a calendar month basis, rolling on the first working day of the month.

China wholesale prices

East China terminal prices

Ningbo ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

Wenzhou ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

Taicang ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

Shanghai ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

Zhangjiagang ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

Fujian ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

East China refinery prices

Shanghai ex refinery

Prices are in yuan/tonne. Specification is propane-butane mix.

Zhenhai ex refinery

Prices are in yuan/tonne. Specification is propane-butane mix.

Yangzi ex refinery

Prices are in yuan/tonne. Specification is propane-butane mix.

Fujian ex refinery

Prices are in yuan/tonne. Specification is propane-butane mix.

Qingdao ex refinery

Prices are in yuan/tonne. Specification is propane-butane mix.

South China terminal prices**Zhuhai ex terminal**

Prices are in yuan/tonne. Specification is propane-butane mix.

Shenzhen ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

Raoping ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

Nansha ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

Shantou ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

Yangjiang ex terminal

Prices are in yuan/tonne. Specification is propane-butane mix.

South China refinery prices**Maoming ex refinery**

Prices are in yuan/tonne. Specification is propane-butane mix.

Guangzhou ex refinery

Prices are in yuan/tonne. Specification is propane-butane mix.

Northeast China**Daqing ex refinery**

Prices are in yuan/tonne. Specification is propane-butane mix.

Dalian ex refinery

Prices are in yuan/tonne. Specification is propane-butane mix.

Northwest China**Urumuqi ex refinery**

Prices are in yuan/tonne. Specification is propane-butane mix.

Inland China**Lanzhou ex refinery**

Prices are in yuan/tonne. Specification is propane-butane mix.

Yan-An ex refinery

Prices are in yuan/tonne. Specification is propane-butane mix.