CRU Prices

Bulk Ferroalloys Chrome Molybdenum Noble Alloys and Minor Metals Methodology and Definitions Guide

December 2024



Methodology and Definitions Guide

Scope

This guide covers prices in all geographical markets for CRU's bulk ferroalloys, chrome, molybdenum, nickel and noble alloys & minor metals assessments. It should be read in conjunction with the CRU Group Compliance Framework and Methodology Guide. It details a commodity-specific methodology which has precedence, with all other aspects covered by the Group methodology guide.

Methodology

CRU's price assessments for bulk ferroalloys, chrome, molybdenum and noble alloys & minor metals are based only on transactions. Use of transaction data alone as data inputs ensures that our assessments accurately reflect the spot market with no risk of information from sentiment, errant opinion, speculative or even confirmed, but ultimately unexecuted bids and offers entering the final published price. This approach is appropriate for prices used extensively in physical contracts.

Our methodology blends strict adherence to transaction data and other methodological rules with limited but necessary application of expert judgement, detailed below, in order to produce a price that benefits from rigour, and analyst expertise and discretion in equal measure.

Data providers

Assessments are based on regular contact with a wide network of market participants including producers, buyers, and traders at critical nodes in the supply chain. This network is constantly reviewed and maintained to seek a balance of buyers and sellers.

Data submitted and submission processes

All prices are based exclusively on transaction data (actual deals concluded) and to that extent there is no hierarchy of acceptable price types. CRU seeks to verify each deal with both parties but where this is not possible, deals will be accepted by one party of a transaction. Information relating to bids/offers or an opinion of the prevailing market price will strictly not be used in the final price assessment calculation.

Admissible price data is limited to transactions concluded at arms-length. This means a trade must be between companies who are unrelated in ownership and/or where the transaction is not part of any other arrangement. This therefore necessarily excludes intra-company transfers.

Data providers provide CRU with one or more single price figures, each relating to an individual spot deal (a sale or a purchase) concluded within a defined trading period (the period since the last assessment). Data Providers also include information such as the chemical composition, delivery date, volume and payment terms.

Producer-to-trader, producer-to-consumer, and trader-to-consumer transactions may all be included in CRU's price assessments, but no trader-to-trader (inter-trade) transactions are used in a final assessment. Market participants can submit prices to CRU by telephone, email, private one-to-one instant messenger services or other private means of communication. All price data is confidential and stored securely.

CRU seeks to ensure that its assessed prices reflect repeatable business that originates from an open inquiry to the market at large. We will scrutinise information given to us, or seek further information, in order to establish if this condition is met. If not, such data may be completely excluded from the final price assessment.

Final assessment calculation

Process

The high and low values of the published price range are established as follows:

- 1. All data points submitted are assessed against admissibility criteria in the relevant product specification and the criteria stated in this methodology.
 - a. Data points which meet the criteria without normalisation are determined as admissible.



- b. Data points that require normalisation and can be normalised are normalised, and the resulting data determined as admissible.
- c. All other data points are rejected as inadmissible and will not be used in subsequent price evaluation.
- d. Of the data points that remain, outliers (defined below) may also be rejected as inadmissible if they otherwise do not meet acceptability criteria, for example are not established as repeatable business.
- 2. The mid-point of remaining admissible data points is typically calculated as the volume-weighted average. In the unlikely event that a price is provided without associated volume, the average volume associated with all other trades with volumes will be used as the weighting for that price. If no prices have associated volumes, a straight average calculation will be used.
- 3. Expert judgement is used to establish the high and low values of the published price range by reference to the distribution of admissible data points around the mid-point and values of the lowest and highest data admissible points, in the current and prior assessment periods. Metrics such as the standard deviation may be used as a guide to this process, but not as a sole determinant of the range.

This means the high and low of the published range are not necessarily set equal to the highest and lowest admissible data points because to do so would:

- a. Introduce excessive volatility in the high and low of the published range over time.
- b. Define the range by individual deals which may carry little volume weight and ignore other admissible data points.

Normalisation

Data which meets the precise methodology specification is eligible for admission to the price without any adjustments. Data which does not fit the specification may still be eligible as an input to the price, but would be subject to a normalisation process in order to adjust its - primary chemical content; incoterms; loading location; vessel size; grade; duties or tariffs by the application of a premium or discount to an initial given price.

The value of this premium or discount is determined by applying one or more estimates of value-in-use or grade; freight; tariff or trade costs adjustments. Parameters used to make these adjustments are updated upon consultation with data providers. Where seen, normalisation is usually limited to adjustment for primary chemical content, deriving netbacks on incoterms and estimated or actual freight rates.

Normalisation is an essential price adjustment process used to align reported market information with a pricing methodology. Decisions to normalise a price and/or choice of values used in the normalisation process are forms of expert judgement.

Exclusion of outliers

A pricing analyst may use expert judgement in the exclusion of a data point as an input to the calculation of the final price. In doing so they would consider the range and distribution of data collected in the same timeframe from other data providers; previous data received from the same data provider; non-price information received from the data provider and the current market state from any other source. Inclusion or exclusion of input data in the final price is recorded.

Any transaction that deviates from the previous assessed price range or the collected price data for the trading period will receive extra scrutiny from a pricing analyst. For example, if a transaction is considered to be a potential outlier, supporting documentation as a means of further authentication may be asked for. Transactions may also be excluded until a transaction is established to be repeatable business. Supporting documentation is typically a contract or purchase/sales order, but other documentation may be accepted. Supporting documentation may not be asked for when, in CRU's judgement, the data is otherwise corroborated or deemed valid.

Transactions verified by both buyer and seller or authenticated with supporting documentation will normally carry more weight in a final assessment than transactions reported without any supporting documentation.

Price determination in an illiquid market

In the case that there are no submissions that meet, or after normalisation can meet, the methodology pricing definition in any price assessment time period, the previous published price will be rolled over and used as the final assessment value for the published price.

Silicon metal

For silicon metal only, the following mechanism is employed to ensure the correct relationship between grades applies at times of low market liquidity:

1. EU 98.5% Si 5-5-3 DDP



By definition of end use and purity, prices for 5-5-3 silicon metal (5-5-3) should almost always be lower than those for 4-4-1 silicon metal (4-4-1). To avoid situations where prices for 5-5-3 and 4-4-1 may become misaligned due to a lack of liquidity in the spot market, CRU uses the following mechanism to align its European silicon metal price assessments.

- If the price of 4-4-1 drops below that of 5-5-3 and there are then no new admissible transaction data for either product recorded in the following 14 days, CRU will lower the price of 5-5-3 to reflect its historical discount to 4-4-1
- The price of 5-5-3 will remain at this discount until further admissible transaction data is collected for it

The historical discount/premium between the products will be established by inspection of transaction prices over a relevant historical period determined by expert judgement. In the unlikely event that CRU receives transaction data that supports 4-4-1 being assessed below 5-5-3 at the same point in time, these levels will be maintained until there is another transaction recorded for either product. The above mechanism will then be deployed again if required.

2. EU 99% Si 4-4-1 DDP

By definition of end use and purity, prices for 5-5-3 silicon metal (5-5-3) should almost always be lower than those for 4-4-1 silicon metal (4-4-1). To avoid situations where prices for 5-5-3 and 4-4-1 may become misaligned due to a lack of liquidity in the spot market, CRU uses the following mechanism to align its European silicon metal price assessments.

- If the price of 5-5-3 rises above that of 4-4-1 and there are then no new admissible transaction data for either product recorded in the following 14 days, CRU will increase the price of 4-4-1 to reflect its historical premium to 5-5-3
- The price of 4-4-1 will remain at this premium until further admissible transaction data is collected for it

The historical discount/premium between the products will be established by inspection of transaction prices over a relevant historical period determined by expert judgement. In the unlikely event that CRU receives transaction data that supports 5-5-3 being assessed above 4-4-1 at the same point in time, these levels will be maintained until there is another transaction recorded for either product. The above mechanism will then be deployed again if required.

CRU EU Chrome Reference Value

CRU's EU Chrome Reference Value is a monthly calculation that represents an average value of alternatives to charge chrome in the European market. The final value is derived from the average between the EU HC FeCr 54-60% Cr DDP and EU HC 60-64.9% Cr DDP midpoints from the same month, adding the variations between the two indexes in the two months preceding the Reference announcement. Once the value has been calculated, an additional factor (+/-\$1 c/lb) is added or subtracted by an analyst to signal price direction for the following month. CRU's EU Chrome Reference Value does not indicate a gross or net price for charge chrome in Europe. Rather it is meant to provide a realistic average price for alternatives to the European benchmark price. No approximations will be made in the calculations until the finalised number. The resulting reference is approximated to the closest integer.

Expert judgement

Expert judgement may apply to decisions on whether price data submitted relates to actual deals concluded; if the deal is executed at arms-length; if normalisation of price data submitted is required; the means of any normalisation, and; the inclusion of a data point in the calculation of the final price (exclusion of outliers).

Expert judgement is usually limited to gauging premiums or discounts associated with trades reported on a different incoterm or where the primary chemical composition differs to the specification. A pricing analyst will consult with one or more colleagues before any application of expert judgement if in any doubt or where collective input would improve the quality of a judgement.

Consistency in the application of expert judgement is achieved through a combination of selection, formal and informal training and review, supervisions and control processes as detailed in section 2.5 of the Group Compliance Framework and Methodology Guide.

Verification



Input data points, calculations and the final price for publication are checked and verified by a second pricing analyst at each critical stage (i.e. where there is scope for error or when any application of expert judgment is required to be verified) in the process from data collection to final publication, and this verification is documented including the identity of the verifier.

Final publication

Final publication of CRU's bulk ferroalloys, chrome, molybdenum, nickel, noble alloys & minor metals prices are published in the CRU Bulk Ferroalloys Monitor, Chrome Monitor, Molybdenum Monitor, Nickel Monitor and Noble Alloys & Minor Metals Prices Service respectively, as well as associated price baskets, via FTP data feeds and are available in DataLab.



Methodology Silicon metal CRU EU Chrome Reference Value Lik Ferroalloys Ferromaganese US HC 78% Mn EXW China HC 78% Mn EXW China HC 78% Mn EXW China HC 78% Mn FOB India HC 78% Mn FOB Ind		
CRU EU Chome Reference Value		
Ferromanganese US HC 76% Mn EXW EUH C 76% Mn DDP China HC 75% Mn DDP China HC 75% Mn DDP China HC 75% Mn DAP US C 76% Mn DAP US C 76% Mn EXW EUH C 76% Mn DAP US NC 87% Mn EXW EUH C 76% Mn DAP US NC 87% Mn DAP US S C 76 - 000 S C 77% S 10DP China MC 75% S 10DP China NC 75% S 10DP China T7% S 10DP China NC 75% S 10DP China NC 75% S 10DP China T7% S 10DP China T7% S 10DP China NC 75% S 10DP China T7% S 10DP China		
Ferromanganese US HC 76% Mn EXW EU HC 76% Mn DDP China HC 75% Mn DDP China HC 75% Mn DDP China HC 75% Mn PCB Hoth C 75% Mn PCB US MC 75% Mn PCB US C 75% S DCP US C 75% S DCP US S C 75% S DC	Ik Ferroallovs	
US HC 76% Mn EXW China HC 76% Mn DAP India HC 76% Mn DAP India HC 76% Mn FCB India HC 76% Mn FCB India HC 76% Mn FCB India HC 76% SC FC CN Two:relial Discontinued Japan HC 76% CF CN Two:relial China HC 76% Mn DAP China MC 75% Mn DAP China MC 75% Mn DAP China MC 75% Mn PCB China SC 76% Mn PCB China MC 75% Mn PCB China MC 75% Mn PCB China MC 75% Mn PCB China SC 76%		
China HC 73% Mn FOB India HC 73% Mn FOB India HC 73% Mn FOB Theoretical [<i>Discontinued</i>]		
India HC 70% Mn FOB India HC 70% Mn FXW China HC 75% Mn FXW Japan HC 75% Mn FXW US MC 80% Mn EXW EU MC 81% Mn DAP US MC 80% Mn EXW EU MC 81% Mn DAP China HC 75% Mn DAP US MC 75% Mn EXW Ferrosilicon US S 05% S EXW (Discontinued) US 75% S EXW (Discontinued) US 75% S EXW China 75% S IO B China 75% S IO CP (C) N S EXW (Discontinued) China 75% S IO AP China 75% S IO AP China 75% S IO CP (C) N orig) Theoretical (Discontinued) Japan 75% S IO (F) CO orig) Theoretical (Discontinued) Japan 75% S IO (F) CO orig) Theoretical (Discontinued) Japan 75% S IO (F) CO orig) Theoretical (Discontinued) Japan 75% S IO (F) CO orig) Theoretical (Discontinued) Japan 75% S IO (F) CO orig) Theoretical (Discontinued) Japan 75% S IO (F) CO orig) Theoretical (Discontinued) Japan 75% N IO (F) CO orig) Theoretical (Discontinued) Japan 75% S IO (F) CO orig) Theoretical (Discontinued) China 65% Mn FOB </td <td></td> <td></td>		
India HC 70% Mn FXW Japan HC 70% Mn FOB Theoretical [Discontinued] Japan HC 75% CIF (CN orig.) Theoretical [Discontinued] Japan HC 75% Mn FOB Theoretical US LOS 0+5% Mn FOB Theoretical US COS 0+5% Mn FOB Theoretical US COS 0+5% Mn FOB Theoretical US 5% Mn FO		
China HC 75% Mn FOB Theoretical <i>Discontinued</i>]. Japan HC 75% CIF (CN orig) Theoretical <i>Discontinued</i>]. US Mc 80% Mn DAP. China MC 75% Mn DAP. China WC 75% Mn DAP. China WC 75% Mn FOB Theoretical US LO 805% Mn FXW ==rrosilicon		
Japan HC 75% CIF (CN orig.) Theoretical [Discontinued]. Japan HC 75% Nor DAP. US MC 80% Mn DAP. US MC 80% Mn DAP. US MC 80% Mn DAW. US LC 80.45% Mn DAB Theoretical US 1C 80.45% Mn DAB Theoretical US 1C 80.45% Mn EXW. EUTON SUS VISION (Discontinued]. US 50% SI EXW [Discontinued]. US 50% SI EXW [Discontinued]. China 75% SI DAP. China 75% SI DAP. China 75% SI COB. China 85% Mn CIF (China 7). China 85% Mn CIF (China 7). Chin		
China HC 65% Mn DAP US MC 80% Mn PEXW China MC 75% Mn PDB Theoretical US LC 80-65% Mn EXW Conserved Star Model US 50% SI EXW [Discontinued] US 50% SI EXW [Discontinued] US 50% SI EXW [Discontinued] China 75% SI DOP China 75% SI FOB China 65% Mn DPA China 65% Mn FOB Theoretical China 65% Mn CFG China 55% SI FOB China China 65% SI FOB China China 65% SI FOB China China 65% SI FOB China China 65% Mn CFG China 65% SI FOB China China 65% Mn CFG China 85% SI FOB China China 85% SI FOB CHINA CHI		
US MC 80% Mn EXW China MC 75% Mn DDP China MC 75% Mn DDP China MC 75% Mn FOB Theoretical. US L08 0-85% Mn EXW FOR Theoretical. US L08 0-85% Mn EXW Sterver (Discontinued]. US 75% SI EXW US 500 And US SI EXV (Discontinued]. US 500 And SI EXW CHINA SI EXV	Japan HC 76% CIF	
EU MC 21% Mn DDP China MC 75% Mn FOB Theoretical		
China MC 75% Mn FOB Theoretical US LG 80-85% Mn EXW For cosilicon US 50% SI EXW [<i>Discontinued</i>] US 50% SI EXW [<i>Discontinued</i>] Ohina 75% SI CF Ohina 75% SI CF China 75% SI CF (CN orig.) Theoretical [<i>Discontinued</i>] Japan 75% SI CF (CN orig.) Theoretical [<i>Discontinued</i>] Japan 75% SI CF (CN orig.) Theoretical [<i>Discontinued</i>] US 65% Mn EXW EU 65%Mn DPC China 65% Mn DPC China 65% Mn FOB India 60% Mn FOB India 65% Mn FOB India 65% Mn FCW EU 65%Mn CDF China 65% Mn FCW EU 65%Mn CDF China 65% Mn FCW EU 65%Mn FOB India 65% Mn FCW EU 65%Mn DPC China 65% Mn FCW EU 65%Mn FOB India 65% Mn FCW China 65% Si		
China MC 75% Mn FCW Server Discontinued] US 108 0-85% Mn EXW US 108 0-85% Mn EXW US 05% ISEXW Discontinued] US 50% ISEXW Discontinued] US 50% ISEXW Discontinued] China 75% SI DOP US SIC 67-00% SI EWU (Discontinued] China 75% SI DOP US SIC 67-00% SI EWU (Discontinued] China 75% SI DOP US SIC F(CN orig) Theoretical (Discontinued] Japan 75% SI CF (CN orig) Theoretical (Discontinued] Japan 75% SI CF (CN orig) Theoretical (Discontinued] US 85% Mn EXW US 85% Mn EXP U 95% SI DOP China 85% Mn CFU US 85% Mn EXW US 85% Mn EXP US 85% MN E		
For Tosilicon US 50% SI EXW [Discontinued]. EU 75% SI EXW [Discontinued]. SN 50% SI EXW [Discontinued]. China 75% SI FOB China 75% SI FOB China 75% SI CPG China 75% SI CPG China 75% SI CPG China 75% SI CPG China 75% SI CIF (CN ong.) Theoretical [Discontinued]. Japan 75% SI CIF US 65% Mn EXW EU 65% Mn DDP China 65% Mn FOB India 65% Mn FOB India 65% Mn FOB India 65% Mn FOB India 60% Mn FOB India 60% Mn FOB Lapan 65% Mn CIF (CN ong.) Theoretical [Discontinued]. Japan 65% Mn CIF (CN ong.) Theoretical [Discontinued]. Japan 65% Mn CIF (CN ong.) Theoretical [Discontinued]. Japan 65% SI S-5.3 EXW EU 98.5% SI S-5.3 DP. Silicon Metal US 98.5% SI S-5.3 DP. China 98.5% SI S-5.3 DP.	China MC 75% Mn FOB Theoretical	
US 50% SI EXW [Discontinued]		
US 75% SI EXW		
EU 75% SI DDP		
US SIC 87-90% SI EXW [Discontinued] China 75% SI CPA China 75% SI CPA China 72% SI CPA SI CON and CPA Japan 75% SI CIF SI CON and SI CPA SI CON AND AND AND AND AND AND AND AND AND AN		
China 75% SI DAP China 72% SI DAP Japan 75% SI CIF (CN orig.) Theoretical [Discontinued]		
China 75% SI CAP China 72% SI CAP Japan 75% SI CIF (CN orig.) Theoretical [Discontinued] Japan 75% SI CIF (CN orig.) Theoretical [Discontinued] Japan 75% SI CIF (CN orig.) Theoretical [Discontinued] US 65% Mn DDP China 65% Mn DDP China 65% Mn DDP China 65% Mn FOB India 60% Mn FOB India 60% Mn FOB China 65% Mn CIF (CN orig.) Theoretical [Discontinued] Japan 65% Mn CIF (IN orig.) China 60% Mn FOB Theoretical [Discontinued] China 60% Mn CIF (IN orig.) China 60% Mn CIF (IN orig.) China 60% Mn CIF (IN orig.) China 60% SI 5-5-3 EXW EU 98 5% SI 5-5-3 DDP China 98.5% SI 5-5-3 CDE China 1000 SI 5-5-3 CDE Chi		
China 72% Si FOB Japan 75% Si CIF (CN orig.) Theoretical [Discontinued]. Japan 75% Si CIF (CN orig.) Theoretical [Discontinued]. US 65% Mn EXW EU 65% Mn DDP China 65% Mn DDP China 65% Mn DDB India 60% Mn FOB India 60% Mn FOB India 60% Mn FOB India 60% Mn FOB India 60% Mn FOB Interventical Japan 65% Mn CIF (CN orig.) Theoretical [Discontinued]. Japan 65% Mn CIF (CN orig.) Theoretical [Discontinued]. Japan 65% Mn CIF (IN orig.). China 60% Mn FOB Interventical [Discontinued]. Japan 65% Si		
Japan 75% Si CIF (CN orig.) Theoretical [<i>Discontinued</i>]. Japan 75% Si CIF. Silicomanganese. US 65% Mn EXW EU 65% Mn DDP. China 65% Mn DDP. China 65% Mn FOB. India 60% Mn FOB Theoretical Japan 65% Mn CIF (CN orig.) Theoretical [<i>Discontinued</i>]. Japan 65% Mn CIF (IN orig.). China 60% Mn FOB Theoretical [<i>Discontinued</i>]. Japan 65% Mn CIF (IN orig.). China 60% Mn FOB Theoretical [<i>Discontinued</i>]. Japan 65% Si		
Japan 75% Si CIF		
Silicomanganese US 65% Mn EXW EU 65% Mn DDP China 65% Mn FOB India 60% Mn FOB Japan 65% Mn CIF Japan 65% Mn CIF (Norig.) Japan 65% Mn CIF (Norig.) Japan 65% Mn CIF China 60% Mn FOB Theoretical (Discontinued) China 60% Mn FOB Theoretical (Discontinued) Silicon Metal		
US 65% Mn EXW EU 65% Mn DDP. China 65% Mn DAP. India 60% Mn POB India 60% Mn FOB India 60% Mn FOB China 65% Mn CIF (CN orig.) Theoretical [Discontinued]. Japan 65% Mn CIF (IN orig.) China 60% Mn CDB Theoretical [Discontinued]. China 60% Mn DAP [Discontinued]. China 60% Mn DAP [Discontinued]. Silicon Metal. US 98.5% 51 5-5.3 EXW EU 98.5% 51 5-5.3 FOB China 98.5% 51 5-5.3 CIF EU 99% Si 4-4.1 DDP. China 98% Si 4-4.1 DDP. China 99% Si 4-4.1 DDP. China 100% AM CIF [Discontinued]. Anganese Ore China Lump 44% Mn CIF. China Lump 44% Mn CIF. Discontinued]. Manganese Metal. China EMM Flake 99.7% Mn FOB. China EMM Flake 99.7% Mn EXW. US POIP. Manganese Sulfate 32% Mn min, EXW.		
EU 65% Mn DDP. China 65% Mn DAP. India 65% Mn DAP. India 60% Mn COB India 60% Mn EXW China 65% Mn CDG Theoretical Japan 65% Mn CIF (Orig.) Theoretical [Discontinued]. Japan 65% Mn CIF (IN orig.). China 60% Mn FOB Theoretical [Discontinued] China 60% Mn FOB Theoretical [Discontinued] China 60% Mn FOB Theoretical [Discontinued] Silicon Metal		
China 65% Mn DAP. India 60% Mn FOB India 60% Mn FOB India 60% Mn FOB India 60% Mn FOB Japan 65% Mn CIF (CN orig.) Theoretical [Discontinued]. Japan 65% Mn CIF (CN orig.) Theoretical [Discontinued]. China 60% Mn DCB Theoretical [Discontinued]. China 60% Mn DCB Theoretical [Discontinued]. China 60% Mn DCB Theoretical [Discontinued]. China 60% Mn DAP [Discontinued]. Silicon Metal. US 98.5% SI 5-5-3 EXW EU 98.5% SI 5-5-3 DDP China 98.5% SI 5-5-3 CIF EU 99% SI 4-4-1 DDP China 99% SI 4-4-1 DDP China 99% SI 4-4-1 DDP China 99% SI 4-4-1 DDP China 99% SI 4-4-1 FOB China 99% SI 4-4-1 FOB China 99% SI 4-4-1 FOB China 99% SI 4-4-1 FOB China 90% SI 4-4-1 FOB China 90% SI 4-4-1 FOB China 1ump 44% Mn CIF Clina 00% Mn FOT Tianjin China Lump 44% Mn CIF [Discontinued]. Manganese Ore China Lump 44% Mn CIF [Discontinued]. Manganese Metal. China Lump 44% Mn CIF [Discontinued]. Manganese Si Si S-53 Mn FOT Tianjin China Lump 44% Mn CIF [Discontinued]. Manganese Si		
India 65%Mn FOB India 65%Mn FOB India 66% Mn FOB Theoretical Japan 65% Mn CFI (N orig.) Theoretical [<i>Discontinued</i>]		
India 60% Mn FOB India 60% Mn FOB Theoretical Japan 65% Mn CIF (CN orig.) Theoretical [Discontinued] Japan 65% Mn CIF (IN orig.) China 60% Mn FOB Theoretical [Discontinued] China 60% Mn FOB Theoretical [Discontinued] China 60% Mn DAP [Discontinued] Silicon Metal US 98.5% Si 5-5.3 EXW EU 98.5% Si 5-5.3 FOB China 98.5% Si 5-5.3 DDP China 98.5% Si 5-5.3 DDP China 98.5% Si 5-5.3 DDP China 98.5% Si 5-5.3 DAP Japan 98.5% Si 5-5.3 DAP Japan 98.5% Si 5-5.3 DAP US 99% Si 4-4.1 DDP China 99% Si 4-4.1 FOB China 100% Si 4-4.1 FOB China 100% CIF. China Lump 44% Mn CIF. China Lump 44% Mn CIF. China Lump 44% Mn FOT Tianjin China Lump 44% Mn CIF [Discontinued]. Marganese Metal China Lump 44% Mn CIF [Discontinued]. Marganese Metal China EMM Flake 99.7% Mn FOB China EMM Flake 99.7% Mn FOB China EMM Flake 99.7% Mn EXW US DB 97% Mn EXW. US EMM 99.7% Mn EXW.		
China 65% Mn FOB Theoretical [Discontinued]		
Japan 65% Mn CIF (CN orig.) Theoretical [Discontinued] Japan 65% Mn CIF (IN orig.). China 60% Mn FOB Theoretical [Discontinued] China 60% Mn FOB Theoretical [Discontinued] US 98.5% Si 5-53 EXW EU 98.5% Si 5-53 DDP China 98.5% Si 5-53 DDP China 98.5% Si 5-53 DAP Japan 98.5% Si 5-53 CIF EU 99% Si 4-4-1 DDP China 99% Si 4-4-1 FOB China 99% Si 4-4-1 FOB China 99% Si 4-4-1 FOB China 99% Si 4-4-1 DDP China 99% Si 4-4-1 DDP China 99% Si 4-4-1 FOB China 90% Si 4-4-1 FOB China 90% Si 4-4-1 FOB China 90% Si 4-4-1 FOB China 100% Si 4-4-1 FOB		
Japan 65% Mn CIF (IN orig). China 60% Mn FOB Theoretical [Discontinued] China 60% Mn DAP [Discontinued] Silicon Metal. US 98.5% Si 5-5.3 EXW EU 98.5% Si 5-5.3 DDP China 98.5% Si 5-5.3 DDP China 98.5% Si 5-5.3 DAP Japan 98.5% Si 5-5.3 OAP Japan 98.5% Si 5-5.3 OAP Japan 98.5% Si 5-5.3 CIF EU 99% Si 4-4.1 DDP China 99% Si 4-4.1 FOB China 99% Si 4-4.1 FOB China 99% Si 4-4.1 FOB China 99% Si 4-4.1 DAP US poly-Si 9.11N EXW [Discontinued] Manganese Ore China Lump 36-38% Mn CIF China Lump 44% Mn CIF China Anganese Metal China Anganese Sulfate China Manganese sulfate 32% Mn min, EXW		
Japan 65% Mn CIF (IN orig.) China 60% Mn COB Theoretical [Discontinued] Silicon Metal		
China 60% Mn FOB Theoretical [Discontinued] China 60% Mn DAP [Discontinued] Silicon Metal		
China 60% Mn DAP [Discontinued] Silicon Metal US 98.5% Si 5-5.3 EXW EU 98.5% Si 5-5.3 DDP China 98.5% Si 5-5.3 DDP China 98.5% Si 5-5.3 CF EU 99% Si 4-4.1 DDP China 99% Si 4-4.1 DDP China 99% Si 4-4.1 DAP US poly-Si 9-11N EXW [Discontinued] Manganese Ore China Lump 36-38% Mn CIF China Lump 36-38% Mn FOT Tianjin China Lump 44% Mn CIF [Discontinued] India Lump 46% Mn CIF [Discontinued] India Lump 44% Mn CIF [Discontinued] India Lump		
Silicon Metal US 98.5% Si 5-5-3 EXW EU 98.5% Si 5-5-3 FOB China 98.5% Si 5-5-3 CDF EU 99% Si 4-4-1 DDP China 99% Si 4-4-1 DDP China 99% Si 4-4-1 FOB China 99% Si 4-4-1 DP China 99% Si 4-4-1 POP China 1000 China 1000 Si 400 China 2000 China 2000 China 2000 Si 400 China 2000 China 2000 China 2000 Manganese Metal China 2000 Manganese Metal China 2000 China 2000 China 2000 China 2000 State Mode China 2000 China 2000		
US 98.5% Si 5-5-3 EXW		
EU 98.5% Si 5-5-3 DDP China 98.5% Si 5-5-3 FOB. China 98.5% Si 5-5-3 DAP. Japan 98.5% Si 5-5-3 CIF. EU 99% Si 4-4-1 DDP China 99% Si 4-4-1 FOB. China 99% Si 4-4-1 FOB. China 99% Si 4-4-1 FOB. China 99% Si 4-4-1 DAP US poly-Si 9-11N EXW [Discontinued]. Manganese Ore . China Lump 36-38% Mn CIF. China Lump 44% Mn FOT Tianjin. China Lump 44% Mn FOT Tianjin. China Lump 44% Mn FOT Tianjin. India Lump 46-38% Mn CIF [Discontinued]. India Lump 44% Mn CIF [Discontinued]. Manganese Metal. China EMM Flake 99.7% Mn FOB. China EMM Flake 99.7% Mn EXW. EU EMM 99.7% Mn DDP. Manganese Sulfate China Manganese sulfate 32% Mn min, EXW.		
China 98.5% Si 5-5-3 DAP		
Japan 98.5% Si 5-5-3 CIF EU 99% Si 4-4-1 DDP. China 99% Si 4-4-1 FOB China 99% Si 4-4-1 FOB China 99% Si 4-4-1 DAP US poly-Si 9-11N EXW [Discontinued] Manganese Ore China Lump 36-38% Mn CIF China Lump 36-38% Mn FOT Tianjin China Lump 44% Mn FOT Tianjin India Lump 44% Mn FOT Tianjin India Lump 44% Mn CIF [Discontinued] India Lump 44% Mn CIF [Discontinued] Manganese Metal China EMM Flake 99.7% Mn FOB China EMM Flake 99.7% Mn EXW (dom.) US EMM 99.7% Mn EXW EU EMM 99.7% Mn DDP Manganese Sulfate China Manganese sulfate 32% Mn min, EXW		
EÚ 99% Si 4-4-1 DDP. China 99% Si 4-4-1 FOB. China 99% Si 4-4-1 DAP. US poly-Si 9-11N EXW [Discontinued] Manganese Ore. China Lump 36-38% Mn CIF. China Lump 44% Mn CIF. China Lump 36-38% Mn FOT Tianjin. China Lump 36-38% Mn CIF [Discontinued] India Lump 44% Mn FOT Tianjin. India Lump 44% Mn CIF [Discontinued] US EMM Flake 99.7% Mn FOB. China EMM Flake 99.7% Mn EXW (dom.). US EMM 99.7% Mn DDP. EU EMM 99.7% Mn DDP. Manganese Sulfate China Manganese sulfate 32% Mn min, EXW.		
China 99% Si 4-4-1 FOB China 99% Si 4-4-1 DAP. US poly-Si 9-11N EXW [Discontinued] Manganese Ore China Lump 36-38% Mn CIF. China Lump 44% Mn FOT China Lump 36-38% Mn FOT Tianjin. China Lump 44% Mn FOT Tianjin. India Lump 44% Mn FOT Tianjin. India Lump 44% Mn CIF [Discontinued] India Lump 44% Mn CIF [Discontinued] India Lump 44% Mn CIF [Discontinued] China EMM Flake 99.7% Mn FOB. China EMM Flake 99.7% Mn EXW (dom.). US EMM 99.7% Mn EXW EU EMM 99.7% Mn DP. Manganese Sulfate China Manganese sulfate 32% Mn min, EXW.		
China 99% Si 4-4-1 DAP US poly-Si 9-11N EXW [Discontinued] Manganese Ore China Lump 36-38% Mn CIF. China Lump 44% Mn CIF China Lump 44% Mn FOT Tianjin. China Lump 36-38% Mn FOT Tianjin. India Lump 36-38% Mn CIF [Discontinued] India Lump 44% Mn CIF [Discontinued]. India Lump 44% Mn CIF [Discontinued]. India Lump 44% Mn FOF [Discontinued]. India Lump 44% Mn FOF [Discontinued]. China EMM Flake 99.7% Mn FOB. China EMM Flake 99.7% Mn EXW (dom.) US EMM 99.7% Mn EXW. EU EMM 99.7% Mn DDP. Manganese Sulfate . China Manganese sulfate 32% Mn min, EXW.		
US poly-Si 9-11N EXW [Discontinued]		
China Lump 36-38% Mn CIF China Lump 44% Mn CIF. China Lump 36-38% Mn FOT Tianjin. China Lump 36-38% Mn FOT Tianjin. India Lump 36-38% Mn CIF [<i>Discontinued</i>]. India Lump 44% Mn CIF [<i>Discontinued</i>]. India Lump 44% Mn CIF [<i>Discontinued</i>]. Manganese Metal. China EMM Flake 99.7% Mn FOB. China EMM Flake 99.7% Mn EXW (dom.). US EMM 99.7% Mn EXW. EU EMM 99.7% Mn DDP. Manganese Sulfate China Manganese sulfate 32% Mn min, EXW.		
China Lump 36-38% Mn CIF China Lump 44% Mn CIF. China Lump 36-38% Mn FOT Tianjin. China Lump 36-38% Mn FOT Tianjin. India Lump 36-38% Mn CIF [<i>Discontinued</i>]. India Lump 44% Mn CIF [<i>Discontinued</i>]. India Lump 44% Mn CIF [<i>Discontinued</i>]. China EMM Flake 99.7% Mn FOB. China EMM Flake 99.7% Mn EXW (dom.). US EMM 99.7% Mn EXW. EU EMM 99.7% Mn DDP. Manganese Sulfate China Manganese sulfate 32% Mn min, EXW.	langanese Ore	
China Lump 36-38% Mn FOT Tianjin China Lump 44% Mn FOT Tianjin India Lump 44% Mn CIF [Discontinued] India Lump 44% Mn CIF [Discontinued] fanganese Metal China EMM Flake 99.7% Mn FOB China EMM Flake 99.7% Mn EXW (dom.) US EMM 99.7% Mn EXW. EU EMM 99.7% Mn DDP fanganese Sulfate China Manganese sulfate 32% Mn min, EXW.	China Lump 36-38% Mn CIF	
China Lump 44% Mn FOT Tianjin India Lump 36-38% Mn CIF [Discontinued] India Lump 44% Mn CIF [Discontinued] Anganese Metal China EMM Flake 99.7% Mn FOB China EMM Flake 99.7% Mn EXW (dom.) US EMM 99.7% Mn EXW EU EMM 99.7% Mn DDP Anganese Sulfate China Manganese sulfate 32% Mn min, EXW.		
India Lump 36-38% Mn CIF [<i>Discontinued</i>] India Lump 44% Mn CIF [<i>Discontinued</i>] Anganese Metal China EMM Flake 99.7% Mn FOB China EMM Flake 99.7% Mn EXW (dom.) US EMM 99.7% Mn EXW. EU EMM 99.7% Mn DDP Anganese Sulfate China Manganese sulfate 32% Mn min, EXW		
India Lump 44% Mn CIF [Discontinued]		
Imaganese Metal China EMM Flake 99.7% Mn FOB China EMM Flake 99.7% Mn EXW (dom.) US EMM 99.7% Mn EXW EU EMM 99.7% Mn DDP Imaganese Sulfate China Manganese sulfate 32% Mn min, EXW		
China EMM Flake 99.7% Mn FOB China EMM Flake 99.7% Mn EXW (dom.). US EMM 99.7% Mn EXW. EU EMM 99.7% Mn DDP Janganese Sulfate China Manganese sulfate 32% Mn min, EXW.		
China EMM Flake 99.7% Mn EXW (dom.) US EMM 99.7% Mn EXW EU EMM 99.7% Mn DDP Janganese Sulfate China Manganese sulfate 32% Mn min, EXW		
US EMM 99.7% Mn EXW EU EMM 99.7% Mn DDP Ianganese Sulfate China Manganese sulfate 32% Mn min, EXW		
Manganese Sulfate China Manganese sulfate 32% Mn min, EXW		
China Manganese sulfate 32% Mn min, EXW		
China Manganese sulfate 32% Mn min, EXW	Vanganese Sulfate	
rome	China Manganese sulfate 32% Mn min, EXW	
1rome		
Ferrochrome		



US HC 47-55% Cr EXW [Discontinued]	
EU HC 47-55% Cr DDP Benchmark [Discontinued]	
EU HC 47-55% Cr DDP Free Market <i>[Discontinued]</i> EU Chrome Reference Value	
China HC 49-70% Cr DAP (dom.) [Discontinued]	
China HC 49-70% Cr CIF (impt.) [Discontinued]	
China HC 48-63% Cr CIF (impt.)	
China HC 49-53% Cr EXW	
EU HC 54-60% Cr DDP	
US HC 62-70% Cr EXW EU HC 62-70% Cr DDP [Discontinued]	
EU HC 65-70% Cr DDP	
EU HC 60-64.9% Cr DDP	
US LC 0.05% C EXW	
EU LC 0.05% C DDP.	
US LC 0.10% C EXW EU LC 0.10% C DDP	
US LC 0.15% C EXW	
US FeCr/Sr EXW	
Japan HC 60-70% CIF	
Japan LC 0.1% CIF	
Chrome Ore	
China Lump 42% Cr CIF (TR orig.)	
China Conc. 48% Cr CIF (TR orig.)	
China Ore 38-40% Cr CIF (ZA orig.) China Conc. 44% Cr CIF (ZA orig.)	
China UG2 42% Cr CIF (ZA orig.)	
China UG2 42% Cr (ZA orig.) FOT Tianjin	
Chrome Metal	
US Aluminothermic 99% Cr EXW	
EU Aluminothermic 99% Cr DDP	
Molybdenum	
Ferromolybdenum	33
US FeMo 655% Mo EXW	33
EU FeMo 65% Mo DDP	
China FeMo 60% Mo DAP	
Molybdenum Oxide	
US Oxide 57% Mo EXW	33
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW	
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF	
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP.	
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals	33 34 34 34 34 34
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals	33 34 34 34 34 34
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP.	33 34 34 34 34 35 35 35
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals Ferrotitanium US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP	33 34 34 34 34 35 35 35 35 35
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals Ferrotitanium US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP	33 34 34 34 34 35 35 35 35 35
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP. Ferrotungsten US FeW 72-75% W EXW.	33 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP Ferrotungsten US FeW 72-75% W EXW EU FeW 72-75% W DDP	33 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP. Ferrotungsten US FeW 72-75% W EXW. EU FeW 72-75% W DDP Ferrovanadium.	33 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
US Oxide 57% Mo EXW	33 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP. Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW EU FeTi 68-72% Ti DDP. Ferrotungsten US FeW 72-75% W EXW EU FeW 72-75% W DDP. Ferrovanadium. US FeV 80% V EXW. EU FeV 80% V DDP.	33 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 36 36 36 36
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW EU FeTi 68-72% Ti DDP. Ferrotungsten US FeW 72-75% W EXW EU FeW 72-75% W DDP. Ferrovanadium US FeV 80% V EXW EU FeV 80% V DDP. Tantalum.	33 34 34 34 35 35 35 35 35 35 35 35 35 35 35 36 36 36 36 36
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW. Main Asia Ports Oxide CIF EU Moly Metal DDP. Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP Ferrotungsten US FeW 72-75% W EXW. EU FeW 72-75% W DDP. Ferrovanadium. US FeV 80% V EXW. EU FeV 80% V DDP. Tantalum US Ta Ore 30% Ta EXW [Discontinued].	33 34 34 34 35 35 35 35 35 35 35 35 35 36 36 36 36 36 36 36 36 36 36
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP. Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW EU FeTi 68-72% Ti DDP. Ferrotungsten US FeW 72-75% W EXW EU FeW 72-75% W DDP. Ferrovanadium US FeV 80% V EXW EU FeV 80% V DDP. Tantalum US Ta Ore 30% Ta EXW [Discontinued]	33 34 34 34 35 35 35 35 35 35 35 35 35 35 36 36 36 36 36 36 36 36 37
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW EU FeTi 68-72% Ti DDP Ferrotungsten US FeW 72-75% W EXW EU FeW 72-75% W DDP Ferrovanadium US FeV 80% V EXW EU FeV 80% V DDP Tantalum US Ta Ore 30% Ta EXW [Discontinued]	33 34 34 34 35 35 35 35 35 35 35 35 35 35 35 36 36 36 36 36 36 36 37 37
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW EU FeTi 68-72% Ti DDP Ferrotungsten US FeW 72-75% W EXW EU FeW 72-75% W DDP. Ferrovanadium US FeV 80% V EXW EU FeV 80% V EXW EU FeV 80% V DDP. Tantalum US Ta Ore 30% Ta EXW [Discontinued] US W Ore 65% WO3 EXW [Discontinued] US W APT 88.5% WO3 EXW [Discontinued]	33 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP. Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP. Ferrotungsten US FeW 72-75% W EXW EU FeW 72-75% W DDP. Ferrovanadium US FeV 80% V EXW EU FeV 80% V EXW EU FeV 80% V DDP. Tantalum US Ta Ore 30% Ta EXW [Discontinued]. Tungsten US W OPE 65% WO3 EXW [Discontinued] US W APT 88.5% WO3 EXW [Discontinued]	33 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals US FeTi 68-72% Ti EXW EU FeTi 68-72% Ti DDP Ferrotungsten US FeW 72-75% W EXW EU FeW 72-75% W DDP. Ferrovanadium US FeV 80% V EXW EU FeV 80% V EXW EU FeV 80% V DDP. Tantalum US Ta Ore 30% Ta EXW [Discontinued] US W Ore 65% WO3 EXW [Discontinued] US W APT 88.5% WO3 EXW [Discontinued]	33 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
US Oxide 57% Mo EXW. EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF. EU Moly Metal DDP. Noble Alloys & Minor Metals Ferrotitanium. US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP Ferrotungsten US FeW 72-75% W EXW. EU FeW 72-75% W DDP Ferrovanadium. US FeV 80% V EXW. EU FeW 80% V DDP. Tantalum. US Ta Ore 30% Ta EXW [Discontinued]. US W Ore 65% WO3 EXW [Discontinued]. US W Ore 65% WO3 EXW [Discontinued]. US W APT 88.5% WO3 EXW [Discontinued]. China FeW 72-75% W FOB China tungsten concentrate 65% WO3 – domestic DAP.	33 34 34 34 34 35 35 35 35 35 35 35 35 36 36 36 36 36 36 36 37 37 37 37 37 37 37
US Oxide 57% Mo EXW EU Oxide 57% Mo EXW Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals Ferrotitanium US FeTi 68-72% Ti EXW EU FeTi 68-72% Ti DDP. Ferrotungsten US FeW 72-75% W EXW EU FeW 72-75% W DDP. Ferrovanadium US FeV 80% V EXW EU FeV 80% V DDP. Tantalum US FeV 80% V DDP. Tantalum US Ta Ore 30% Ta EXW [Discontinued] Tungsten US W Ore 65% WO3 EXW [Discontinued] China FeW 72-75% W FOB China tungsten concentrate 65% WO3 – domestic DAP. China APT 88.5% DAP China APT 88.5% WO3 FOB. Vanadium	33 34 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
US Oxide 57% Mo EXW. EU Oxide 57% Mo EXW. Main Asia Ports Oxide CIF. EU Moly Metal DDP. Noble Alloys & Minor Metals . Ferrotitanium. US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP. Ferrotungsten. US FeW 72-75% W EXW. EU FeW 72-75% W DDP. Ferrovanadium. US FeV 80% V EXW. EU FeV 80% V DDP. Tantalum. US FeV 80% V DDP. Tantalum. US Ta Ore 30% Ta EXW [Discontinued]. Tungsten. US W Ore 65% WO3 EXW [Discontinued]. US W APT 88.5% WO3 EXW [Discontinued]. China FeW 72-75% W FOB. China tungsten concentrate 65% WO3 – domestic DAP. China APT 88.5% WO3 FOB.	33 34 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
UŠ Oxide 57% Mo EXW. EU Oxide 57% Mo EXW. Main Asia Ports Oxide CIF. EU Moly Metal DDP. Noble Alloys & Minor Metals Ferrotitanium. US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP Ferrotungsten US FeW 72-75% W EXW. EU FeW 72-75% W DDP. Ferrovanadium. US FeV 80% V EXW. EU FeV 80% V DDP Tantalum. US Ta Ore 30% Ta EXW [Discontinued]. US W Ore 65% WO3 EXW [Discontinued]. US W Ore 65% WO3 EXW [Discontinued]. China FeW 72-75% W FOB China APT 88.5% WO3 FOB. China APT 88.5% WO3 FOB. Vanadium.	33 34 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
UŠ Oxide 57% Mo EXW. EU Oxide 57% Mo EXW. Main Asia Ports Oxide CIF EU Moly Metal DDP. Noble Alloys & Minor Metals . Ferrotitanium. US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP Ferrotungsten US FeW 72-75% W EXW. EU FeW 72-75% W DDP. Ferrovanadium. US FeV 80% V EXW. EU FeV 80% V EXW. EU FeV 80% V DDP. Tantalum. US Ta Ore 30% Ta EXW [Discontinued]. Tungsten US W OP 65% WO3 EXW [Discontinued]. US W APT 88.5% WO3 EXW [Discontinued]. China FeW 72-75% W FOB China APT 88.5% WO3 FOB. Vanadium. China V2O5 98% V DAP (dom.).	33 34 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
UŠ Oxide 57% Mo EXW. EU Oxide 57% Mo EXW. Main Asia Ports Oxide CIF EU Moly Metal DDP. Noble Alloys & Minor Metals Serrotitanium US FeTi 86-72% Ti EXW EU FeTi 68-72% Ti DDP. Ferrotungsten US FeW 72-75% W EXW. EU FeW 72-75% W EXW. EU FeW 72-75% W DDP. Ferrovanadium US FeV 80% V EXW EU FeV 80% V EXW EU FeV 30% V EXW US Ta Ore 30% Ta EXW [Discontinued]. Tungsten US W Ore 65% WO3 EXW [Discontinued]. US W APT 88.5% WO3 EXW [Discontinued]. China tungsten concentrate 65% WO3 - domestic DAP. China APT 88.5% DAP. China APT 88.5% DAP. China APT 88.5% DAP. China VDF (DB [Discontinued]. China VDF 98% V DAP (dom.) Minor Metals. US Antimony 99.65% Sb EXW.	33 34 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
UŠ Oxide 57% Mo EXW. EU Oxide 57% Mo EXW. Main Asia Ports Oxide CIF EU Moly Metal DDP Noble Alloys & Minor Metals Ferrotitanium. US FeTI 68-72% TI EXW. EU FeTI 68-72% TI DP. Ferrotungsten US FeW 72-75% W EXW. EU FeW 72-75% W DDP. Ferrovanadium. US FeV 80% V EXW. EU FeV 80% V EXW. EU FeV 80% V DP. Tantalum. US Ta Ore 30% Ta EXW [Discontinued]. Tungsten US W Ore 65% WO3 EXW [Discontinued] US W Ore 65% WO3 EXW [Discontinued]. China HPT 88.5% DAP. China APT 88.5% DAP. China APT 88.5% DAP. China V2OS 98% V FOB [Discontinued]. China V2OS 98% V FOB [Discontinued]. Minor Metals. US Antimony 99.65% Sb EXW.	33 34 34 34 34 35 35 35 35 35 35 35 35 36 36 36 36 36 36 36 36 36 36 36 38 37 37 37 37 37 37 37 37 37 37 37 37 37
UŠ Oxide 57% Mo EXW. EU Oxide 57% Mo EXW. Main Asia Ports Oxide CIF EU Moly Metal DDP. Noble Alloys & Minor Metals Ferrotitanium. US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP. Ferrotungsten. US FeW 72-75% W EXW. EU FeW 72-75% W EXW. EU FeW 72-75% W DDP. Ferrovanadium. US FeV 80% V EXW. EU FeV 80% V DDP. Tantalum. US Ta Ore 30% Ta EXW [Discontinued]. Tungsten. US W Ore 65% WO3 EXW [Discontinued]. US W Ore 65% WO3 EXW [Discontinued]. China HeW 72-75% W FOB China APT 88.5% WO3 FOB Vanadium. China APT 88.5% WO3 FOB	33 34 34 34 34 35 35 35 35 35 35 35 36 36 36 36 36 36 36 36 36 36 36 38 38 37 37 37 37 37 37 37 37 37 37 37 37 37
UŠ Oxide 57% Mo EXW. EU Oxide 57% Mo EXW. Main Asia Ports Oxide CIF EU Moly Metal DDP. Noble Alloys & Minor Metals Ferrotitanium. US FeTi 68-72% Ti EXW EU FeTi 68-72% Ti DDP Ferrotungsten US Few 72-75% W EXW EU FeW 72-75% W DDP Ferrovanadium. US FeV 80% V EXW EU FeW 72-75% W DDP. Tantalum. US FeV 80% V DDP. Tantalum. US Ta Ore 30% Ta EXW [Discontinued]. Tungsten. US W OPT 68.5% WO3 EXW [Discontinued]. China FeW 72-75% W FOB. China APT 88.5% WO3 FOB China APT 88.5% WO3 FOB China APT 88.5% WO3 FOB. China APT 88.5% WO3 FOB. US X Ore 59% V FOB [Discontinued]. China APT 88.5% WO3 FOB. Vanadium. China V2O5 98% V FOB [Discontinued]. US X Ore 59% V FOB [Discontinued]. China V2O5 98% V FOB [Discontinued]. US X Ore 55% Sb EXW. EU Antimony 99.65% Sb EXW. EU Sismuth 99.99% Bi EXW.	33 34 34 34 34 35 35 35 35 35 35 35 35 35 35 36 36 36 36 36 36 36 36 36 38 38 37 37 37 37 37 37 37 37 37 37 37 37 37
UŠ Oxide 57% Mo EXW. EU Oxide 57% Mo EXW. Bain Asia Ports Oxide CIF. EU Moly Metal DDP. Noble Alloys & Minor Metals. Ferrotitanium. US FeTi 68-72% Ti DEP. Ferrotungsten US FeTi 68-72% TI DEP. Ferrotungsten US FeW 72-75% W EXW. EU FeW 72-75% W DDP. Ferrovanadium. US FeV 80% V DDP. Ferrovanadium. US Ta Ore 30% Ta EXW [Discontinued]. US W Ore 65% WO3 EXW [Discontinued]. US W Ore 65% WO3 EXW [Discontinued]. US W Ore 65% WO3 EXW [Discontinued]. China FeW 72-75% W FOB. China APT 88.5% WO3 FOB. Vanadium. China APT 88.5% WO3 FOB. Vanadium. China APT 88.5% VOAP (dom.). Minor Metals. US Antimony 99.65% Sb EXW. EU FeW. US Antimony 99.65% Sb EXW. EU Addition St Communication (dom.). Minor Metals. US Antimony 99.65% Sb EXW. EU Bismuth 99.99% Bi EXW.	33 34 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
UŠ Oxide 57% Mo EXW. EU Oxide 57% Mo EXW. Main Asia Ports Oxide CIF EU Moly Metal DDP. Noble Alloys & Minor Metals Ferrotitanium. US FeTi 68-72% Ti EXW EU FeTi 68-72% Ti DDP Ferrotungsten US Few 72-75% W EXW EU FeW 72-75% W DDP Ferrovanadium. US FeV 80% V EXW EU FeW 72-75% W DDP. Tantalum. US Ta Ore 30% Ta EXW [Discontinued]. US W APT 88.5% WO3 EXW [Discontinued]. US W APT 88.5% WO3 EXW [Discontinued]. China FeW 72-75% W FOB China APT 88.5% WO3 FOB Vanadium. China V2O5 98% V FOB [Discontinued]. China V2O5 98% V FOB [Discontinued]. US Antimony 99.65% Sb EXW. EU Antimony 99.65% Sb EXW. EU Antimony 99.65% Sb EXW. EU Antimony 99.65% Sb EXW. EU Antimony 99.65% Sb EXW.	33 34 34 34 34 35 35 35 35 35 35 35 35 35 35 35 35 35
UŠ Oxide 57% Mo EXW. EU Oxide 57% Mo EXW. Main Asia Ports Oxide CIF. EU Moly Metal DDP. Noble Alloys & Minor Metals Ferrotitanium. US FeTi 68-72% Ti EXW. EU FeTi 68-72% Ti DDP Ferrotungsten. US FeW 72-75% W EXW. EU FeW 72-75% W DDP. Ferrovanadium. US FeV 80% V EXW. EU FeV 80% V DDP. Tantalum. US FeV 80% V DDP. Tantalum. US Ta Ore 30% Ta EXW [Discontinued]. US Wore 65% WO3 EXW [Discontinued]. US W APT 88.5% WO3 EXW [Discontinued]. US W APT 88.5% WO3 EXW [Discontinued]. China FeW 72-75% W FOB. China APT 88.5% DAP. China APT 88.5% DAP. China APT 88.5% DAP. China APT 88.5% VO3 FOB. Vanadium. US W APT 88.5% VO3 FOB. Vanadium. China VDS 98% V FOB [Discontinued]. China APT 88.5% DAP. China APT 88.5% CDE. Vanadium. China VOOS 98% V DAP [dom.]. Minor Metals. US Antimony 99.65% Sb EXW. EU Bismuth 99.99% Bi EXW. EU Bismuth 99.99% Bi EXW. EU Bismuth 99.99% Bi EXW.	33 34 34 34 34 35 35 35 35 35 35 35 35 36 36 36 36 36 36 36 36 36 36 38 38 38 38 38 38 38 38 38 39 39 39 39 39 39 39 39 39 39 39 39 39



E	EU Selenium 99.5% Se EXW	. 41
Coba	alt	41
E	EU 99.8% Co DDP	. 41
ι	JS 99.8% Co EXW	. 41
C	China 99.8% Co DAP	42



Bulk Ferroalloys

Ferromanganese

US HC 76% Mn EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU HC 76% Mn DDP DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

China HC 75% Mn DAP DataLab Name:

Grade:

Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

India HC 76% Mn FOB

DataLab Name: Grade:

Price basis: Credit/Payment terms: Packaging: Loading Location: Type:

Ferromanganese, High Carbon, 76% Mn, Spot price; USA, ex-warehouse

76% Mn, 7% C, 1.5% Si, Max 0.25% P, 0.3% S US ex-warehouse, per long ton of material Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago, producer plant Spot US dollar in cents Long ton Multiple truckloads No more than 16 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Ferromanganese, High Carbon, 76% Mn, Spot price; Europe, DDP

76% Mn, 7% C, 1.5% Si, Max 0.25% P, 0.3% S
Delivered, duty paid, per Tonne of material
Cash/Net 30-60 standard
Bulk
Rotterdam warehouse or producing plant, additional locations
Spot
Euro
Tonne
Multiple truckloads
No more than 12 weeks forward
European inland terminals/locations
Business reported by sellers to buyers, including producers to traders
Duty paid

Ferromanganese, High Carbon, 75% Mn, Spot price; China, DAP

75% Mn Per mt, delivered steel mill, mainly Hebei n/a Producing plant Spot RMB Tonne 100 t + n/a Northern China Business reported by sellers to buyers, including producers to traders VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

Ferromanganese, High Carbon, 76% Mn, Spot price; India, FOB

76% Mn, 7% C, 1.5% Si, Max 0.25% P, 0.3% S FOB India, per Tonne of material Cash/Net 30-60 standard Bulk Producing plant, additional locations Spot



Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

India HC 70% Mn EXW

DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Tonne Multiple truckloads No more than 12 weeks forward Europe, Middle East, South East Asia Business reported by sellers to buyers, including producers to traders Duty paid

Ferromanganese, High carbon, 70% Mn, Spot price; India, ex-warehouse

70% Mn, 6% C, 1.2% Si, Max 0.3% P, 0.03% S Ex-warehouse/Ex-plant, per Tonne of material Cash/Net 30-60 standard Bulk Loading Producing plant or warehouse Spot Indian Rupees (INR) Tonne Multiple truckloads No more than 4 weeks forward Indian inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

China HC 75% Mn FOB Theoretical

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency: Ferromanganese, High Carbon, 75% Mn, Spot price; China, FOB Mn 75%; C 8% max Per mt, FOB port, mainly Tianjin and Fangcheng Letter of credit or Wire Transfer Chinese ports Spot US dollar Tonne Bulk, typically 25 mt container 4-8 weeks No markets currently exist Calculated Export duty paid Bi-weekly, every Tuesday and Thursday

Japan HC 75% CIF (CN orig.) Theoretical [Discontinued]

Dollar

Ferromanganese, High Carbon, 75% Mn, Spot price; Japan, China Origin, CIF DataLab name: Grade: 75% Mn Price basis: **CIF** Japan Credit/Payment terms: n/a Loading Location: Chinese port Type: Spot Currency: USD Weight Unit: Tonne Size: 100+ t Timing: n/a Main Consumer Markets: Japan Calculated Pricina: Duties/Tariffs: Export duty paid

Japan HC 76% CIF

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Ferromanganese, High Carbon, 76% Mn, Spot price; Japan, CIF 76% Mn CIF Japan Line of credit/Wire transfer Producer main port Spot



Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

China HC 65% Mn DAP

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

US MC 80% Mn EXW

DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU MC 81% Mn DDP

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

China MC 75% Mn DAP

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: USD Tonne Bulk, typically 25 mt container No more than 12 weeks forward Japan Business reported by sellers to buyers, including producers to traders Export duty paid

Ferromanganese, High Carbon, 65% Mn, Spot price; China, DAP

65% Mn Per mt, delivered steel mill, mainly Hebei n/a Producing plant Spot RMB Tonne 100+ t n/a Northern China Business reported by sellers to buyers – no inter-trade activity VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

Ferromanganese, Medium Carbon, 80% Mn, Spot price; USA, ex-warehouse

80% Mn, 1.5% C, Max 0.3% P, 0.2% S, 1% Si US ex-warehouse, per pound Mn Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago, producer plant Spot US dollar in cents Pounds Multiple truckloads No more than 16 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Ferromanganese, Medium Carbon, 81% Mn, Spot price; Europe, DDP

81% Mn, 1.5% C, Max 0.3% P, 0.2% S, 1% Si
Delivered, duty paid, per pound of material
Cash/Net 30-60 standard
Bulk
Rotterdam warehouse or producing plant, additional locations
Spot
Euros
Tonne
Multiple truckloads
No more than 12 weeks forward
European inland terminals/locations
Business reported by sellers to buyers, including producers to traders
Duty paid

Ferromanganese, Medium Carbon, 75% Mn, Spot price; China, DAP

75% Mn, 2% max C Per mt, delivered steel mill, mainly Hebei n/a Producer plant



Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricina: Duties/Tariffs: Frequency:

RMB Tonne 100t + n/a Northern China Business reported by sellers to buyers - no inter-trade VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

China MC 75% Mn FOB Theoretical

Spot

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

US LC 80-85% Mn EXW

DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Ferromanganese, Medium Carbon, 75% Mn, Spot price; China, FOB Mn 75%, 2% max C FOB China ports Line of credit/Wire Transfer Foreign destination ports Spot US dollar Tonne Bulk, typically 25 mt container 4-8 weeks No markets currently exist Calculated Export duty paid Bi-weekly, every Tuesday and Thursday

Ferromanganese, Low Carbon, 80-85% Mn, Spot price; USA, ex-warehouse

80-85% Mn, Max 0.5% C, 2% Si, 0.3% P, 0.3% S US ex-warehouse, per pound Mn Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago, producer plant Spot US dollar in cents Pounds Multiple truckloads No more than 16 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Ferrosilicon

US 50% Si EXW [Discontinued]

Ferrosilicon, 50% Si, Spot price; USA, ex-warehouse

DataLab Name: Grade: 50% Si Price basis: US ex-warehouse or producing plant, per pound Si Cash/Net 30-60 standard Credit/Payment terms: Packaging: Bulk Loading Location: US warehouse, typically Pittsburgh or Chicago, producer plant Type: Spot Currency: US dollar in cents Weight Unit: Pounds Size: Truckload or larger No more than 12 weeks forward Timing: US inland terminals/locations Main Consumer Markets: Pricing: Business reported by sellers to buyers, including producers to traders Duty paid Duties/Tariffs:



US 75% Si EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU 75% Si DDP

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing:

Duties/Tariffs:

Ferrosilicon, 75% Si, Spot price; USA, ex-warehouse

75% Si, Max 0.1% V, Max 1.5% AI (Standard 2" X 1/2") US ex-warehouse or producing plant, per pound Si Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago, producer plant Spot US dollar in cents Pounds Multiple truckloads No more than 16 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Ferrosilicon, 75% Si, Spot price; Europe, DDP

75% Si, Max 1.5% Al, 0.10% C, 0.04% P, 0.01% S (Standard 10-50mm) DDP, per mt of material (not Si) Cash/Net 30-60 standard Bulk Rotterdam warehouse or producing plant, additional locations Spot Euro Tonne Multiple truckloads No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

US SiC 87-90% Si EXW [Discontinued]

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

China 75% Si FOB

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Ferrosilicon, Silicon carbide, 87-90% Si, Spot price; USA, ex-warehouse 87-90% Si, 2-5% C US ex-warehouse, per pound gross material Cash/Net 30-60 standard 50 lbs bags US warehouse, typically Pittsburgh or Chicago, plant Spot US dollar Short tons Multiple truckloads No more than 12 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Ferrosilicon, 75% Si, Spot price; China, FOB

74-80% Si FOB Tianjin port, China Line of credit/Wire Transfer Chinese ports - foreign destination ports Spot US dollar Tonne Typically 25 mt container Typically 25 mt container Typically 4-8 weeks Japan, South Korea, the US, India and Southeast Asia Business reported by sellers to buyers, including producers to traders



Duties/Tariffs: Frequency:

China 75% Si DAP

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

China 72% Si FOB

- DataLab Name: Grade: Price basis:
- Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

China 72% Si DAP

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Frequency:

Export duty paid Bi-weekly, every Tuesday and Thursday

Ferrosilicon, 75% Si, Spot price; China, DAP

75% Si Per mt, delivered steel mill, mainly Hebei n/a Producing plant Spot RMB Tonne 100t + n/a Northern China Business reported by sellers to buyers – no inter-trade VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

Ferrosilicon, 72% Si, Spot price; China, FOB

72-74% Si FOB major ports, China Line of credit/Wire Transfer Chinese ports - foreign destination ports Spot US dollar Tonne 100t + 4-8 weeks Japan, South Korea, the US, India and Southeast Asia Business reported by sellers to buyers, including producers to traders Export duty paid Bi-weekly, every Tuesday and Thursday

Ferrosilicon, 72% Si, Spot price; China, DAP

72-74% Si Per mt, delivered steel mill, mainly Hebei n/a Producing plant Spot RMB Tonne 100t + n/a Northern China Business reported by sellers to buyers – no inter-trade VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

Japan 75% Si CIF (CN orig.) Theoretical [Discontinued]

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Ferrosilicon, 75% Si, Spot price; Japan, China origin. CIF Si 75% CIF Japan Line of credit/Wire Transfer Chinese port Spot US dollar Tonne Bulk, typically 25 mt container Typically 4-8 weeks



Main Consumer Markets: Pricing: Duties/Tariffs:

Japan 75% Si CIF

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Japan Business reported by sellers to buyers, including producers to traders Export duty paid

Ferrosilicon, 75% Si, Spot price; Japan, CIF

Si 75% CIF Japan Line of credit/Wire transfer Producer main port Spot US dollar Tonne Typically 25 mt container No more than 12 weeks forward Japan Business reported by sellers to buyers, including producers to traders Export duty paid

Silicomanganese

US 65% Mn EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU 65%Mn DDP

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

China 65% Mn DAP

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type:

Silicomanganese, 65% Mn, Spot price; USA, ex-warehouse

65-68% Mn, 16-18.5% Si US ex-warehouse or producing plant, per pound Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago Spot US dollar in cents Pounds Multiple truckloads No more than 16 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Silicomanganese, 65% Mn, Spot price; Europe, DDP

65-68% Mn, 16% Si, 2% C, 0.3% P, 0.03% S Delivered, duty paid, per Tonne Cash/Net 30-60 standard Bulk Rotterdam or producing plant Spot Euro Tonne Multiple truckloads No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Silicomanganese, 65% Mn, Spot price; China, DAP

65% Mn, 16% Si Per mt, delivered steel mill, mainly Hebei n/a Producing plant Spot



Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

India 65%Mn FOB DataLab Name:

Grade:

Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

India 60%Mn FOB

DataLab Name: Grade:

Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

India 60% Mn EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: RMB Tonne 100t + n/a Northern China Business reported by sellers to buyers, including producers to traders VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

Silicomanganese, 65% Mn, Spot price; India, FOB

65% Mn, 16% Si

FOB India, per Tonne of material Cash/Net 30-60 standard Bulk Producing plant Spot Dollar Tonne Multiple truckloads No more than 12 weeks forward Europe, Middle East, South East Asia Business reported by sellers to buyers, including producers to traders Duty paid

Silicomanganese, 60% Mn, Spot price; India, FOB

60% Mn, 14% Si, 2.5% C FOB India, per Tonne of material Cash/Net 30-60 standard Bulk Producing plant Spot Dollar Tonne Multiple truckloads No more than 12 weeks forward Europe, Middle East, South East Asia Business reported by sellers to buyers, including producers to traders Duty paid

Silicomanganese, 60% Mn, Spot price; India, ex-warehouse

60% Mn, 14% Si, 2.5% C max, 0.3% P, 0.03% S EXW (Ex-warehouse/Ex-plant), per Tonne of material Cash/Net 30-60 standard Bulk Loading Producing plant or warehouse Spot Indian Rupees (INR) Tonne Multiple truckloads No more than 4 weeks forward Indian inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

China 65% Mn FOB Theoretical

DataLab Name: Grade: Price basis: Silicomanganese, 65% Mn, Spot price; China, FOB Mn 65%; Si 17% FOB China ports (mostly Tianjin and Fangcheng)



Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency: Line of credit/Wire Transfer Chinese ports - foreign destination ports Spot US dollar Tonne Bulk, typically 25 mt container 4-8 weeks Japan, Africa and Asia Calculated Export duty paid Bi-weekly, every Tuesday and Thursday

Japan 65% Mn CIF (CN orig.) Theoretical [Discontinued]

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Japan 65% Mn CIF

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Siliconmanganese, 65% Mn, Špot price; Japan, China origin, CIF Mn 65%; Si 17% CIF Japan n/a Chinese ports Spot US dollar Tonne Bulk, typically 25 mt container n/a Japan Calculated Export duty paid

Silicomanganese, 65% Mn, Spot price; Japan, CIF

Mn 65%; Si 17% CIF Japan Line of credit/Wire transfer Producer main port Spot US dollar Tonne Bulk, typically 25 mt container No more than 12 weeks forward Japan Business reported by sellers to buyers, including producers to traders Export duty paid

Japan 65% Mn CIF (IN orig.)

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Silicomanganese, 65% Mn, Spot price; Japan, India origin, CIF

65% Mn, 16% Si CIF Japan Line of credit/Wire transfer Producer main port Spot US dollar Tonne Bulk, typically 25 mt container No more than 12 weeks forward Japan Business reported by sellers to buyers, including producers to traders Duties paid

China 60% Mn FOB Theoretical [Discontinued]

DataLab Name:	Silicomanganese, 60% Mn, Spot price; China, FOB
Grade:	Mn 60%; Si 14%
Price basis:	FOB China ports (mostly Tianjin and Fangcheng)



Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency: Line of credit/Wire Transfer Chinese ports - foreign destination ports Spot US dollar Tonne Bulk, typically 25 mt container 4-8 weeks Japan, Africa and Asia Business reported by sellers to buyers, including producers to traders Export duty paid Bi-weekly, every Tuesday and Thursday

China 60% Mn DAP [Discontinued]

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

Silicon Metal

US 98.5% Si 5-5-3 EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU 98.5% Si 5-5-3 DDP

DataLab Name: Grade:

Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Silicomanganese, 60% Mn, Spot price; China, DAP 60% Mn, 14% Si Per mt, delivered steel mill, mainly Hebei n/a Producing plant Spot RMB Tonne 100t + n/a Northern China Business reported by sellers to buyers, including producers to traders VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

Silicon Metal, 98.5% Si 5-5-3, Spot price; USA, ex-warehouse

98.5% Si; Max 0.5% Fe; 0.5% Al; 0.3% Ca US ex-warehouse, per pound Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago or producing plant Spot US dollar in cents Pounds 1-5 truckloads No more than 16 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Silicon Metal, 98.5% Si 5-5-3, Spot price; Europe, DDP

98.5% Si, Max 0.5% Fe, 0.5% Al, 0.3% Ca Delivered, duty paid, per Tonne Cash/Net 30-60 standard Bulk Rotterdam or producing plant Spot Euros Tonne Multiple truckloads No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Not applicable



China 98.5% Si 5-5-3 FOB

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

China 98.5% Si 5-5-3 DAP

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

Japan 98.5% Si 5-5-3 CIF

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU 99% Si 4-4-1 DDP DataLab Name:

Grade:

Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets:

Silicon Metal, 98.5% Si 5-5-3, Spot price; China, FOB

Si 98.5% min; Max 0.5% Fe, 0.5% Al, 0.3% Ca FOB Guangzhou Huangpu port, China Line of credit/Wire Transfer Chinese ports - foreign destination ports Spot US dollar Tonne Bulk, typically 25 mt container 4-8 week delivery Japan, South Korea, Southeast Asia, India and Europe Business reported by sellers to buyers, including producers to traders No export duty Bi-weekly, every Tuesday and Thursday

Silicon Metal, 98.5% Si 5-5-3, Spot price; China, DAP

Si 98.5% min; Max 0.5% Fe, 0.5% Ål, 0.3% Ca Delivered consumer Cash/Bank acceptance bill Producing plant Spot RMB Tonne Multiple truckloads No more than 12 weeks forward China inland Business reported by sellers to buyers, including producers to traders VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

Silicon Metal, 98.5% Si 5-5-3, Spot price; Japan, DAP

Si 98.5% min; Max 0.5% Fe, 0.5% Ål, 0.3% Ca CIF Japan Line of credit/Wire transfer Country of origin, mostly China Spot USD Tonne Multiple containers No more than 12 weeks forward Japanese terminals/locations Business reported by sellers to buyers, including producers to traders Duties paid

Silicon Metal, 99% Si 4-4-1, Spot price; Europe, DDP

99% Si, Max 0.4% Fe, 0.4% Al, 0.1% Ca Delivered, duty paid, per Tonne Cash/Net 30-60 standard Bulk Rotterdam, producing plant Spot Euro Tonne Multiple truckloads No more than 12 weeks forward European inland terminals/locations



Pricing: Duties/Tariffs:

China 99% Si 4-4-1 FOB

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

China 99% Si 4-4-1 DAP

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

Business reported by sellers to buyers, including producers to traders Not applicable

Silicon Metal, 99% Si 4-4-1, Spot price; China, FOB

Si 99% min, Max 0.4% Fe, 0.4% Al, 0.1% Ca FOB Guangzhou Huangpu port, China Line of credit/Wire Transfer Chinese ports - foreign destination ports Spot US dollar Tonne 25 mt per container 4-8 week delivery Japan, South Korea, Southeast Asia, India and Europe Business reported by sellers to buyers, including producers to traders No export duty Bi-weekly, every Tuesday and Thursday

Silicon Metal, 99% Si 4-4-1, Spot price; China, DAP

Si 99% min, Max 0.4% Fe, 0.4% Ål, 0.1% Ca Delivered consumer Cash/Bank acceptance bill Producing plant Spot RMB Tonne Multiple truckloads No more than 12 weeks forward China inland terminals/locations Business reported by sellers to buyers, including producers to traders VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

US poly-Si 9-11N EXW [Discontinued]

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Silicon Metal, Polysilicon Trans Si 9-11N, Spot price; USA, ex-warehouse

9-11N Si US ex-warehouse, per kilogram Cash/Net 30-60 standard Big bags US warehouse, producer plants Spot US dollar Kilogram Tonne s chunks No more than 12 weeks forward US inland terminals, international procurements Business reported by sellers to buyers, including producers to traders Not applicable in US

Manganese Ore

China Lump 36-38% Mn CIF

DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Manganese Ore, Lump, 36-38% Mn, Spot price; China, CIF 36-38% Mn CIF main Chinese port, per dmtu Cash/Net 30-60 standard Bulk, container Producer main port

Spot



Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

Drv Tonne Multiple containers or larger No more than 12 weeks forward China inland terminals/locations Business reported by sellers to buyers, including producers to traders No Bi-weekly, every Tuesday and Thursday

China Lump 44% Mn CIF DataLab Name:

- Grade:
- Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

Manganese Ore, Lump, 44% Mn, Spot price; China, CIF

44% Mn (Range 40-46%)

US dollar

Per dmtu, CIF Chinese main port Cash/Net 30-60 standard Bulk, container Producing nation's main port Spot US dollar Dry Tonne Multiple containers or larger No more than 12 weeks forward China inland terminals/locations Business reported by sellers to buyers, including producers to traders No Bi-weekly, every Tuesday and Thursday

China Lump 36-38% Mn FOT Tianjin

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

Manganese Ore, Lump, 36-38% Mn, Spot price; China, Tianjin, FOT 36-38% FOT Tianjin port, per dmtu Cash Bulk, container producing plant Spot RMB Dry tonne Multiple containers or larger n/a Smelters in China and traders Business reported by sellers to buyers Duty paid Bi-weekly, every Tuesday and Thursday

China Lump 44% Mn FOT Tianjin

DataLab Name:	Manganese Ore, Lump, 44% Mn, Spot price; China, Tianjin, FOT
Grade:	44% Mn (Range 40-46%)
Price basis:	FOT Tianjin port, per dmtu
Credit/Payment terms:	Cash
Packaging:	Bulk, container
Loading Location:	Producing plant
Туре:	Spot
Currency:	RMB
Weight Unit:	Dry tonne
Size:	Multiple containers or larger
Timing:	n/a
Main Consumer Markets:	Smelters in China and traders
Pricing:	Business reported by sellers to buyers
Duties/Tariffs:	Duty paid
Frequency:	Bi-weekly, every Tuesday and Thursday

India Lump 36-38% Mn CIF [Discontinued] DataLab Name: Manganese Ore, Lump, 36-38% Mn, Spot price; India, CIF



- Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:
- 36-38% Mn CIF main India port, per dmtu Cash/Net 30-60 standard Bulk, container Producing nation's main port Spot US dollar Dry Tonne Multiple containers or larger No more than 12 weeks forward India inland terminals/locations Business reported by sellers to buyers, including producers to traders No

India Lump 44% Mn CIF [Discontinued]

DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Manganese Ore, Lump, 44% Mn, Spot price; India, CIF 44% Mn (Range 42-45%) Per dmtu unit, CIF India main ports Cash/Net 30-60 standard Bulk, container Producing nation's main port Spot US dollar Dry Tonne Multiple containers or larger No more than 12 weeks forward India inland terminals/locations Business reported by sellers to buyers, including producers to traders No

Manganese Metal

China EMM Flake 99.7% Mn FOB

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency: Manganese Metal, Electrolytic Flake 99.7% Mn, Spot price; China, FOB Mn 99.7% min (electrolytic) FOB Guangzhou Huangpu port, China Line of credit/Wire Transfer Chinese ports - foreign destination ports Spot US dollar Tonne Bulk, typically 25 mt container 4-8 weeks Japan, South Korea, the US, India and EU Business reported by sellers to buyers, including producers to traders No export duty Bi-weekly, every Tuesday and Thursday



China EMM Flake 99.7% Mn EXW (dom.)

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency: Manganese Metal, Electrolytic Flake 99.7% Mn, Spot price; China, EXW Mn 99.7% min (electrolytic) China ex-works Cash Producing plant Spot RMB Tonne 100 t + n/a China mainland Business reported by sellers to buyers, including producers to traders VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

US EMM 99.7% Mn EXW

DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU EMM 99.7% Mn DDP DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Manganese Metal, Electrolytic 99.7% Mn, Spot price; USA, ex-warehouse

99.7% Mn US ex-warehouse Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago Spot US dollar in cents Pounds Truckload or larger No more than 16 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Manganese Metal, Electrolytic 99.7% Mn, Spot price; Europe, DDP

99.7% Mn Delivered, duty paid, per tonne Cash/Net 30-60 standard Bulk Rotterdam, or producing plant Spot US dollar Tonnes Truckload or larger No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Manganese Sulfate

China Manganese sulfate 32% Mn min, EXW

DataLab Name: China Manganese sulfate 32% Mn min, EXW

Grade:

Price basis: Credit/Payment terms: Loading Location: Type: Currency: 32% Mn min, Fe 0.001% max, Zn 0.001% max, Cu 0.001% max, Pb 0.001% max, Cd 0.0005% max, K 0.01% max, Na 0.01% max, Ca 0.01% max, Mg 0.01%, max, Ni 0.005% max, Co 0.005% max China ex-works Bank acceptance bill/Cash Producing plant Spot RMB



Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency: Tonne 33t + n/a China mainland Business reported by sellers to buyers, including producers to traders VAT included,any other duties excluded Monthly



Chrome

Ferrochrome

US HC 47-55% Cr EXW [Discontinued]

DataLab name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Chrome, High Carbon, 47-55% Cr, Spot price; USA, ex-warehouse 47-55% Cr,6-8% C US ex-warehouse, contained Cr Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago Spot US dollar in cents Pounds Multiple truckloads No more than 12 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

EU HC 47-55% Cr DDP Benchmark [Discontinued]

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Chrome, High Carbon, 47-55% Cr, Benchmark, Spot price; Europe, DDP 47-55% Cr, 6-8% C South African benchmark minus average discounts Cash/Net 30-60 standard Bulk Rotterdam warehouse or producing plant, additional locations Benchmark minus discounts US dollar in cents Pounds Multiple truckloads No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

EU HC 47-55% Cr DDP Free Market *[Discontinued]* DataLab Name: Chrome, High Carbon, 47-55% Cr, Free Market, Spot price; Europe, DDP

DataLab Name: Grade:

Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: 47-55% Cr, 6-8% C Delivered, Duty paid, contained Cr Cash/Net 30-60 standard Bulk Rotterdam warehouse or producing plant, additional locations Spot US dollar in cents Pounds Multiple truckloads No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

EU Chrome Reference Value

DataLab Name: Price Basis: CRU Reference Price Index, Chrome, Market- Europe Derived from the following this calculation process

China HC 49-70% Cr DAP (dom.) [Discontinued]

DataLab Name: Grade: Chrome, High Carbon, 49-70% Cr, Spot price; China, DDP 49-70% Cr; 6-10% C



- Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:
- China ex-producing point/warehouse Line of credit/Wire Transfer Major Chinese stainless mills Spot USD cents Pounds Truckload volumes 2-8 week delivery time China inland terminals/locations Business reported by sellers to buyers, including producers to traders VAT unpaid for US dollar/VAT paid for Chinese yuan Bi-weekly, every Tuesday and Thursday

China HC 49-70% Cr CIF (impt.) [Discontinued]

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Chrome, High Carbon, 49-70% Cr, Spot price; China, CIF 49-70% Cr; 6% C CIF China ports Line of credit/Wire Transfer Major Chinese ports and stainless mills Spot US dollar Pounds/Tonne 25 mt per container 4-8 week delivery China inland terminals/locations Business reported by sellers to buyers, including producers to traders Import duty paid

China HC 48-63% Cr CIF (impt.)

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

China HC 49-53% Cr EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing:

Duties/Tariffs:

Frequency:

Chrome, High Carbon, 49-70% Cr, Spot price; China, CIF 48-63% Cr; 6-10% C CIF China ports Line of credit/Wire Transfer Major Chinese ports and stainless mills Spot US dollar Pounds/Tonne 25 mt per container 4-8 week delivery China inland terminals/locations Business reported by sellers to buyers, including producers to traders Import duty paid Bi-weekly, every Tuesday and Thursday

Chrome, High Carbon, 49-53% Cr, Spot price; China, EXW

49-53% Cr; 6-10% C China ex-producing point/warehouse Cash Producing plant/warehouse Spot RMB Tonnes 500 t + n/a China inland terminals/locations Business reported by sellers to buyers, including producers to traders VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday



EU HC 54-60% Cr DDP

DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer: Pricing: Duties/Tariffs:

US HC 62-70% Cr EXW

DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Chrome, High Carbon, 54-60% Cr, Spot price; Europe, DDP

54-60% Cr; 2-4% Si; 0.03-0.04% Ph; 6-8% C Delivered, Duty paid, contained Cr Cash/Net 30-60 standard Bulk Rotterdam warehouse or producing plant, additional locations Spot US dollar in cents Pounds Multiple truckloads No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Chrome, High Carbon, 62-70% Cr, Spot price; USA, ex-warehouse

62-70% Cr; 6-8% C; 1.5% max Si US Ex-warehouse, contained Cr Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago Spot US dollar in cents Pounds Multiple truckloads No more than 12 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

EU HC 62-70% Cr DDP [Discontinued] DataLab Name: Chrome,

Chrome, High Carbon, 62-70% Cr, Spot price; Europe, DDP

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU HC 65-70% Cr DDP

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets:

Pricing:

62-70% Cr; 6-8% C; 1.5% max Si Delivered, Duty paid, contained Cr Cash/Net 30-60 standard Bulk Rotterdam warehouse or producing plant, additional locations Spot US dollar in cents Pounds Multiple truckloads No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Chrome, High Carbon, 65-70% Cr, Spot price; Europe, DDP

65-70% Cr; 6-8% C; 1.5% max Si Delivered, Duty paid, contained Cr Cash/Net 30-60 standard Bulk Location: Rotterdam warehouse or producing plant, additional locations Spot US dollar in cents Pounds Multiple truckloads No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders



Duties/Tariffs:

EU HC 60-64.9% Cr DDP

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

US LC 0.05% C EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU LC 0.05% C DDP

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

US LC 0.10% C EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing:

Duty paid

Chrome, High Carbon, 60-64.9% Cr, Spot price; Europe, DDP

60-64.9% Cr; 6-9% C; 3% max Si Delivered, Duty paid, contained Cr Cash/Net 30-60 standard Bulk Rotterdam warehouse or producing plant, additional locations Spot US dollar in cents Pounds Multiple truckloads No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Chrome, Low Carbon, 0.05% C, Spot price; USA, ex-warehouse

65-70% Cr; 0.05 C US Ex-warehouse, contained Cr Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago Spot US dollar in cents Pounds Minimum 10 mt No more than 12 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Chrome, Low Carbon, 0.05% C, Spot price; Europe, DDP

65-70% Cr; 0.05 C Delivered, Duty paid, contained Cr Cash/Net 30-60 standard Bulk Rotterdam warehouse or producing plant, additional locations Spot US dollar in cents Pounds Single truckload No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Chrome, Low Carbon, 0.10% C, Spot price; USA, ex-warehouse

65-70% Cr; 0.10 C US ex-warehouse, contained Cr Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago Spot US dollar in cents Pounds Single truckload No more than 12 weeks forward



Main Consumer Markets: Pricing: Duties/Tariffs:

EU LC 0.10% C DDP

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

US LC 0.15% C EXW

DataLab Name: Grade:

Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

US FeCr/Sr EXW

DataLab Name: Grade:

Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Japan HC 60-70% CIF DataLab Name:

Grade:

Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Chrome, Low Carbon, 0.10% C, Spot price; Europe, DDP 65-70% Cr: 0.10 C

Delivered, duty paid, contained Cr Cash/Net 30-60 standard Bulk Rotterdam warehouse or producing plant, additional locations Spot US dollar in cents Pounds Multiple truckloads No more than 12 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Chrome, Low Carbon, 0.15% C, Spot price; USA, ex-warehouse

65-70% Cr; 0.15 C

US ex-warehouse, contained Cr Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago Spot US dollar in cents Pounds Single truckload No more than 12 weeks forward US inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid

Chrome, Fe Cr/Sr, Spot price; USA, ex-warehouse

40% Cr; 40% Si

US ex-warehouse Cash/Net 30-60 standard Bulk US warehouse, typically Pittsburgh or Chicago Spot US dollar in cents Pounds Multiple truckloads No more than 12 weeks forward US inland terminals/locations Formula price based on US FeSi and US HC FeCr 60-70% Cr Duty paid

Chrome, High Carbon, Spot price; Japan, CIF

60-70% CIF major Japanese port, contained Cr Cash/Net 30 days Bulk Producing ports Spot US cents Pounds



Size: Timina: Main Consumer Markets: Pricing: Duties/Tariffs:

Japan LC 0.1% CIF DataLab Name:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Multiple containers or larger No more than eight weeks forward, with some leeway for holidays Japan inland terminals/locations Business reported by sellers to buyers, including producers to traders VAT unpaid

Chrome, Low Carbon, 0.10% C, Spot price; Japan, CIF 0.10 C

CIF major Japanese port, contained Cr Cash/Net 30 days Bulk Producing ports Spot US cents Pounds Multiple containers or larger No more than 12 weeks forward, with some leeway for holidays Japan inland terminals/locations Business reported by sellers to buyers, including producers to traders VAT unpaid

Chrome Ore

China Lump 42% Cr CIF (TR orig.)

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

Chrome, Lump, 42% Cr, Spot Price; Turkey origin, CIF 42% lumpy, 2:6:1 Cr to Fe ratio CIF Chinese main port Cash/Net 30-60 standard Bulk, container Turkish main port Spot US dollar Dry Tonne Multiple containers or larger No more than 12 weeks forward China inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid Bi-weekly, every Tuesday and Thursday

China Conc. 48% Cr CIF (TR orig.)

DataLab Name: Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type:	Chrome, Concentrates, 46-48% Cr, Spot price; China, Turkey origin, CIF 48% Cr CIF main Chinese port Cash/Net 30-60 standard Bulk, container Turkish main port Spot
Weight Unit: Size:	Dry Tonne Multiple containers or larger
Timing:	No more than 12 weeks forward
Main Consumer Markets:	China inland terminals/locations
Pricing:	Business reported by sellers to buyers, including producers to traders
Duties/Tariffs:	Duty paid
Frequency:	Bi-weekly, every Tuesday and Thursday

China Ore 38-40% Cr CIF (ZA orig.)

Grade:

DataLab Name: Chrome, Concentrates, 38-40% Cr, Spot price; China, South Africa origin, CIF 38-40% lumpy



- Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:
- CIF main Chinese port Cash/Net 30-60 standard Bulk, container Main South African port Spot US dollar Drv Tonne Multiple containers or larger No more than 12 weeks forward China inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid Bi-weekly, every Tuesday and Thursday

Chrome, Concentrates, 44% Cr, Spot price; China, South Africa origin, CIF

China Conc. 44% Cr CIF (ZA orig.)

44% Cr

CIF Chinese main port

Bulk, container

Cash/Net 30-60 standard

DataLab Name:

Type:

Size:

Grade: Price basis: Credit/Payment terms: Packaging: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

Main South African port Spot US dollar Dry Tonne Multiple containers or larger No more than 12 weeks forward China inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid Bi-weekly, every Tuesday and Thursday

China UG2 42% Cr CIF (ZA orig.)

DataLab Name: Chrome, UG2 Concentrates, 42% Cr, Spot price; China, South Africa origin, CIF 42% Cr Grade: Price basis: CIF main Chinese port Credit/Payment terms: Cash/Net 30-60 standard Packaging: Bulk, container Loading Location: Main South African port Spot Currency: US dollar Weight Unit: Tonne Multiple containers or larger Timing: No more than 12 weeks forward Main Consumer Markets: China inland terminals/locations Pricing: Business reported by sellers to buyers, including producers to traders Duties/Tariffs: No Frequency: Bi-weekly, every Tuesday and Thursday

China UG2 42% Cr (ZA orig.) FOT Tianjin

DataLab Name: Chrome, UG2 Concentrates, 42% Cr, Spot price; China, South Africa origin, FOT Grade: 42% Cr Price basis: FOT Tianjin port, per dmtu Credit/Payment terms: Cash Packaging: Bulk, container Loading Location: Producing plant Type: Spot RMB Currency: Weight Unit: Dry tonne Size: Multiple containers or larger Timing: n/a Main Consumer Markets: Smelters in China and traders Pricing: Business reported by sellers to buyers



Duties/Tariffs: Frequency: Duty paid Bi-weekly, every Tuesday and Thursday

Chrome Metal

US Aluminothermic 99% Cr EXW

DataLab Name:	Chrome, Aluminothermic, 99% Cr, Spot price; USA, ex-warehouse
Grade:	Aluminothermic chrome metal, 99% Cr
Price basis:	US ex-warehouse
Credit/Payment terms:	Cash/Net 30-60 standard
Packaging:	Bulk
Loading Location:	US warehouse, typically Pittsburgh or Chicago
Туре:	Spot
Currency:	US dollar
Weight Unit:	Pounds
Size:	5 mt
Timing:	No more than 12 weeks forward
Main Consumer Markets:	US inland terminals/locations
Pricing:	Business reported by sellers to buyers, including producers to traders
Duties/Tariffs:	Duty paid

EU Aluminothermic 99% Cr DDP

DataLab Name:
Grade:
Price basis:
Credit/Payment terms:
Packaging:
Loading Location:
Type:
Currency:
Weight Únit:
Size:
Timing:
Main Consumer Markets:
Pricing:
Duties/Tariffs:

Chrome, Aluminothermic, 99% Cr, Spot price; Europe, DDP

Aluminothermic chrome metal, 99% Cr Delivered, Duty Paid, per Tonne Cash/Net 30-60 standard Bulk Rotterdam Spot US dollar Tonne Partial and Full Truckloads No more than 12 weeks forward EU inland terminals/locations Business reported by sellers to buyers, including producers to traders Duty paid



Molybdenum

Ferromolybdenum

US FeMo 65% Mo EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU FeMo 65% Mo DDP

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

China FeMo 60% Mo DAP

DataLab Name: Grade: Price basis: Credit/Payment terms: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

Molybdenum, FeMo, Spot price; USA, EXW

65% min Mo – 0.5% Cu; 1.5% Si; 0.06% P; 0.1% C; 0.1% S. US ex-warehouse Cash/Net 30 Major US ports/warehouse; domestic destinations only Spot US dollar Pounds of Mo 5 mt No more than 8 weeks forward US terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Molybdenum, FeMo, Spot price; Europe, DDP

65% min Mo – 0.5% Cu; 1.5% Si; 0.06% P; 0.1% C; 0.1% S. DDP Cash/Net 30 Major European ports/warehouse Spot US dollar Kilos of Mo 10 mt to 20 mt (partial and full truckloads) No more than 8 weeks forward European terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Molybdenum, FeMo, Spot price; China, DAP

60% min Mo Delivered consumer Cash/Net 30 days Spot Rmb Tonne 10 mt to 20 mt (partial and full truckloads) No more than four weeks forward, with some leeway for holiday Chinese mills Business reported by sellers to buyers – no inter-trade activity VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

Molybdenum Oxide

US Oxide 57% Mo EXW

DataLab Name: Grade:

Price basis: Credit/Payment terms: Loading Location: Type: Currency:

Molybdenum, Oxide, Spot price; USA, EXW

57% min Mo – 0.5% Cu, 0.1% P, lead and sulfur US ex-warehouse Cash/Net 30 Major US ports/warehouse Spot US dollar



Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU Oxide 57% Mo EXW DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Main Asia Ports Oxide CIF

DataLab Name: Grade: Price basis:

Credit/Payment terms: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets:

Pricing: Duties/Tariffs: Frequency:

EU Moly Metal DDP

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Pounds of Mo 5 mt packed in bags or drums No more than 8 weeks forward US terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Molybdenum, Oxide, Spot price; Europe, EXW

57% min Mo – 0.5% Cu, 0.1% P, lead and sulfur EXW Cash/Net 30 Major Europe ports/warehouse Spot US dollar Pounds of Mo 10 mt to 20 mt (partial and full truckloads) packed in bags or drums No more than 8 weeks forward Western Europe terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Molybdenum, Oxide, Spot price; Asia, Main ports, CIF

57% min Mo – 0.5% Cu, 0.1% P, lead and sulfur CIF Main Asia Ports (other locations in the Asian region may be reflected in the assessment after normalisation) Cash/Net 30 days Spot US dollar Pounds of Mo 10 mt to 20 mt (partial and full truckloads) packed in bags or drums No more than four weeks forward, with some leeway for holiday Japanese, Chinese, S. Korean terminals/locations (other locations in the Asian region may be reflected in the assessment after normalisation) Business reported by sellers to buyers – no inter-trade activity Duty paid Weekly, every Friday

EU Mo Metal 99.8% DDP

99.8% min Mo Delivered, Duty Paid, per Kilo Cash/Net 30 Major Europe ports/warehouse Spot US dollar Kilogramme 5 mt to 20 mt No more than 8 weeks forward Western Europe terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid



Noble Alloys & Minor Metals

Ferrotitanium

US FeTi 68-72% Ti EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU FeTi 68-72% Ti DDP

- DataLab Name:
- Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Ferrotungsten

US FeW 72-75% W EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU FeW 72-75% W DDP

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type:

Ferrotitanium, 68-72% Ti, Spot price; USA, ex-warehouse

68-72% min Ti – max: 0.5% N; 0.2% C; 6% Al; 1% Sn; 3% V US ex-warehouse Cash/Net 30 Major US ports/warehouse Spot US dollar Pounds of Ti Minimum 5 mt No more than 8 weeks forward US terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Ferrotitanium, 68-72% Ti, Spot price; Europe, DDP

68-72% min Ti – max: 0.5% N; 0.2% C; 6% Al; 1% Sn; 3% V DDP Cash/Net 30 Major European ports/warehouse Spot US dollar Kilograms of Ti Minimum 2 mt No more than 8 weeks forward European terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Ferrotungsten, 72-75% W, Spot price; USA, ex-warehouse

72-75% min W – 0.5% Si, 0.05% Cu, 0.25% Mn, 0.2% C US ex-warehouse Cash/Net 30 Major US ports/warehouse Spot US dollar Pounds of W 2 mt to 10 mt uncrushed 100x10, packed in 100-kilo drums. No more than 8 weeks forward US terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Ferrotungsten, 72-75% W, Spot price; Europe, DDP

72-75% min W – 0.5% Si, 0.05% Cu, 0.25% Mn, 0.2% C DDP Cash/Net 30 Major European ports/warehouse Spot



Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Ferrovanadium

US FeV 80% V EXW

DataLab Name: Grade:

Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU FeV 80% V DDP

DataLab Name:

- Grade:
- Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

US dollar Kilograms of W Minimum 2 mt No more than 8 weeks forward European terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Ferrovanadium, 80% V, Spot price; USA, ex-warehouse

80% min V – 1.50%max Å; 1.50%max Si; 0.25%max C; 0.05%max S; 0.05%max P US ex-warehouse Cash/Net 30 Major US ports/warehouse Spot US dollar Pounds of V 5 mt packed in 25-lb bags of V on pallets No more than 8 weeks forward US terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Ferrovanadium, 80% V, Spot price; Europe, DDP

80% min V – 1.50%max Al; 1.50%max Si; 0.25%max C; 0.05%max S; 0.05%max P DDP Cash/Net 30 Major Europe ports/warehouse Spot US dollar Kilograms of V Minimum 5 mt packed in 250kg drums or supersacks No more than 8 weeks forward Europe terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Tantalum

US Ta Ore 30% Ta EXW [Discontinued]

DataLab Name:	Tantalum Ore, 30% Ta2O5, Spot price; USA, ex-warehouse
Grade:	30% Ta
Price basis:	US ex-warehouse
Credit/Payment terms:	Cash/Net 30
Loading Location:	Major US ports/warehouse
Туре:	Spot
Currency:	US dollar
Weight Unit:	Pounds of Ta
Size:	2 mt to 5 mt.
Timing:	No more than 8 weeks forward
Main Consumer Markets:	US terminals/locations
Pricing:	Business reported by sellers to buyers – no inter-trade activity
Duties/Tariffs:	Duty paid



Tungsten

US W Ore 65% WO3 EXW [Discontinued]

DataLab name: Grade:

Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Tungsten Ore, 65% WO3, Spot price; US, ex-warehouse 65% min WO3 – S 0.7% max S; 0.05% max P; 0.15% max As; 0.13% max Cu; 0.2% max Sn; 7% max SiO2; 5% max Ca US ex-warehouse Cash/Net 30 Major US ports/warehouse Spot US dollar Pounds of W 5 mt to 10 mt No more than 8 weeks forward US terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

US W APT 88.5% WO3 EXW [Discontinued]

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Tungsten APT, 88.5% WO3, Spot price; USA, ex-warehouse 88%.5 WO3 US ex-warehouse Cash/Net 30 Major US ports/warehouse Spot US dollar Pounds of W

5 mt to 10 mt 5 mt to 10 mt No more than 8 weeks forward US terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

China FeW 72-75% W FOB

DataLab Name:

Credit/Payment terms:

Main Consumer Markets:

Loading Location:

Grade:

Type:

Size:

Timing:

Pricing:

Grade:

Currency:

Weight Unit:

Duties/Tariffs:

DataLab Name:

Frequency:

Price basis:

Ferrotungsten, 72-75% W, Spot price; China, FOB

72-75% min W – S: 0.08% max; P: 0.05% max; C: 0.4% max; Si: 0.7% max; Mn: 0.5% max Per kg W, fob China Cash Chinese ports Spot US dollar Tonne 10 mt min 1-6 weeks Japan, South Korea, the US, and EU Business reported by sellers to buyers, including producers to traders No export duty Bi-weekly, every Tuesday and Thursday

WO3: 65% max; S: 0.8% max; P: 0.10% max; As: 0.15% max; Mo: 0.05% max;

China tungsten concentrate 65% WO3 – domestic DAP

Tungsten Ore, 60% WO3, Spot price; China, DAP

Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Ca: 5% max; Mn: 1.5% max; Cu: 0.25% max; Sn: 0.25% max; SiO2: 7.0% max Per mt, delivered place, mainly Jiangxi Cash Producing plant Spot RMB

nit: Tonne 50t min



Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

China APT 88.5% DAP

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

China APT 88.5% WO3 FOB

- DataLab Name:
- Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:

n/a Middle and east China Business reported by sellers to buyers, including producers to traders VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

Tungsten APT, 88.5% WO3, Spot price; China, DAP WO3: 88.5% min

Per mt, delivered place, mainly Hunan, Fujian, Sichuan Cash Producing plant Spot RMB Tonne 20t min n/a Central, eastern and southern China Business reported by sellers to buyers, including producers to traders VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

Tungsten APT, 88.5% WO3, Spot price; China, FOB

WO3: 88.5% min Per mtu WO3, fob China Cash Chinese ports Spot US dollar Tonne 17t min 1-6 weeks Japan, South Korea, the US, and EU Business reported by sellers to buyers, including producers to traders No export duty Bi-weekly, every Tuesday and Thursday

Vanadium

China V2O5 98% V FOB [Discontinued]

DataLab Name:	Vanadium, V2O5 98% V, Spot price; China, FOB
Grade:	98% V
Price basis:	FOB China
Credit/Payment terms:	Cash/Net 30
Loading Location:	Major Chinese ports
Туре:	Spot
Currency:	US dollar
Weight Unit:	Pound
Size:	5 mt to 10 mt
Timing:	No more than 8 weeks forward
Main Consumer Markets:	US terminals/locations
Pricing:	Business reported by sellers to buyers – no inter-trade activity
Duties/Tariffs:	Duty paid
Frequency:	Bi-weekly, every Tuesday and Thursday

China V2O5 98% V DAP (dom.)

DataLab Name:
Grade:
Price basis:
Credit/Payment terms:

Vanadium, V2O5 98% V, Spot price; China, DAP 98% V DAP China Cash/Net 30



- Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency:
- Major Chinese ports Spot Chinese RMB Tonne 5 mt to 10 mt No more than four weeks forward, with some leeway for holiday Chinese inland terminals/locations Business reported by sellers to buyers - no inter-trade activity Duty paid Bi-weekly, every Tuesday and Thursday

Minor Metals

US Antimony 99.65% Sb EXW

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Major US ports/warehouse; domestic destinations only

Antimony, 99.65% Sb, Spot price; USA, ex-warehouse

US ex-warehouse

Cash/Net 30

Spot US dollar Pounds 10 mt to 20 mt (partial and full truckloads) No more than 8 weeks forward US inland terminals/locations Business reported by sellers to buyers - no inter-trade activity Duty paid

99.65% min Sb ingot, max 0.15% As, max 50 ppm Se, balance Pb

EU Antimony 99.65% Sb EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Antimony, 99.65% Sb, Spot price; Europe, ex-warehouse

EU ex-warehouse Cash/Net 30 Rotterdam Spot US dollar Tonne 10 mt to 20 mt (partial and full truckloads) No more than 8 weeks forward EU inland terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

99.65% min Sb ingot, max 0.15% As, max 50 ppm Se, balance Pb

US Bismuth 99.99% Bi EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Bismuth, 99.99% Bi, Spot price; USA, ex-warehouse

99.99% min Bi ingot/shot US ex-warehouse Cash/Net 30 Major US ports/warehouse; domestic destinations only Spot US dollar Pounds 1 mt to 5 mt (small volume lots) No more than 8 weeks forward US inland terminals/locations Business reported by sellers to buyers - no inter-trade activity Duty paid

EU Bismuth 99.99% Bi EXW

DataLab Name: Grade:

Bismuth, 99.99% Bi, Spot price; Europe, ex-warehouse

99.99% min Bi ingot/shot



Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU ex-warehouse Cash/Net 30 Rotterdam Spot US dollar Pounds 1 mt to 5 mt (small volume lots) No more than 8 weeks forward EU inland terminals/locations Business reported by sellers to buyers - no inter-trade activity Duty paid

US Cadmium 99.95% Cd EXW [Discontinued]

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Cadmium, 99.95% Cd, Spot price; USA, ex-warehouse 99.95% min Cd sticks US ex-warehouse Cash/Net 30 Major US ports/warehouse; domestic destinations only Spot US dollar Pounds 500 lb to 5 mt (small volume lots) No more than 8 weeks forward US inland terminals/locations Business reported by sellers to buyers - no inter-trade activity Duty paid

EU Cadmium 99.95% Cd EXW [Discontinued] Cadmium, 99.95% Cd, Spot price; Europe, ex-warehouse

DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

99.95% min Cd sticks EU ex-warehouse Cash/Net 30 Rotterdam Spot US dollar Pounds 500 lb to 5 mt (small volume lots) No more than 8 weeks forward US inland terminals/locations Business reported by sellers to buyers - no inter-trade activity Duty paid

US Indium 99.99% In EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timina: Main Consumer Markets: Pricing: Duties/Tariffs:

EU Indium 99.99% In EXW

DataLab Name: Grade: Price basis: Credit/Payment terms:

Indium, 99.99% In, Spot price; USA, ex-warehouse

99.99% min In US ex-warehouse Cash/Net 30 Major US ports/warehouse; domestic destinations only Spot US dollar Kilos 100 ka lots No more than 8 weeks forward US inland terminals/locations Business reported by sellers to buyers - no inter-trade activity Duty paid

Indium, 99.99% In, Spot price; Europe, ex-warehouse

99.99% min In EU ex-warehouse Cash/Net 30



Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Rotterdam Spot US dollar Kilos 100 kg lots No more than 8 weeks forward EU inland terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

US Selenium 99.5% Se EXW

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

EU Selenium 99.5% Se EXW DataLab Name:

Grade:

Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs:

Selenium, 99.5% Se, Spot price; USA, ex-warehouse

99.5% min Se – min 200 mesh US ex-warehouse Cash/Net 30 Major US ports/warehouse; domestic destinations only Spot US dollar Pounds 500kg to 5 mt (small lot transactions) No more than 8 weeks forward US inland terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Selenium, 99.5% Se, Spot price; Europe, ex-warehouse

99.5% min Se – min 200 mesh EU ex-warehouse Cash/Net 30 Rotterdam Spot US dollar Pounds 500kg to 5 mt (small lot transactions) No more than 8 weeks forward EU inland terminals/locations Business reported by sellers to buyers – no inter-trade activity Duty paid

Cobalt

EU 99.8% Co DDP

DataLab Name: Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing:

US 99.8% Co EXW

DataLab Name: Grade: Price basis:

Cobalt, 99.8% Co, Spot price; Europe, DDP

99.8% min Co Delivered, duty paid, per pound Cash/Net 30-60 standard Rotterdam Spot US Dollar Pound min 1 tonne No more than 8 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders

Cobalt, 99.8% Co, Spot price; USA, ex-warehouse

99.8% min Co US ex-warehouse



THE INDEPENDENT AUTHORITY MINING I METALS I FERTILIZERS

Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing:

China 99.8% Co DAP DataLab Name:

Grade: Price basis: Credit/Payment terms: Loading Location: Type: Currency: Weight Unit: Size: Timing: Main Consumer Markets: Pricing: Duties/Tariffs: Frequency: Cash/Net 30-60 standard Major US ports/warehouse; domestic destinations only Spot US Dollar Pound min 1 tonne No more than 8 weeks forward European inland terminals/locations Business reported by sellers to buyers, including producers to traders

Cobalt, 99.8% Co, Spot price; China, DAP

99.8% min Co DAP Bank acceptance (other payment normalized) Producer plant Spot - Assessed RMB Metric ton of material Min lot size 1 tonne No more than 4 weeks forward China Business reported by sellers to buyers, including producers to traders VAT included, any other duties excluded Weekly, every Friday