# **CRU Prices**

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

July 2023





# **Methodology and Definitions Guide**

## Scope

This guide covers prices in all geographical markets for CRU's bulk ferroalloys, chrome, molybdenum, nickel, noble alloys & minor metals and battery 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.
- 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.

#### **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.

#### <u>Verification</u>

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

CRU's bulk ferroalloys, chrome, molybdenum, nickel, noble alloys & minor metals and battery metals are published in the CRU Bulk Ferroalloys Monitor, associated Bulk Ferroalloys Prices Basket, via FTP data feeds and available in Datal ab.

Methodology and Definitions Guide	
Scope	
Methodology	
Bulk Ferroalloys	
Ferromanganese	
US HC 76% Mn EXW	
EU HC 76% Mn DDP	
China HC 75% Mn DAP	
India HC 76% Mn FOBIndia HC 70% Mn EXW	
China HC 75% Mn FOB Theoretical	
Japan HC 75% CIF (CN orig.) Theoretical [Discontinued]	
Japan HC 76% CIF	
China HC 65% Mn DAPUS MC 80% Mn EXW	
EU MC 81% Mn DDP	
China MC 75% Mn DAP	
China MC 75% Mn FOB Theoretical	
US LC 80-85% Mn EXW	
Ferrosilicon	
US 50% Si EXW [Discontinued]	
US 75% SI EXW	
EU 75% Si DDPUS SiC 87-90% Si EXW [Discontinued]	
China 75% Si FOB	
China 75% Si DAP	
China 72% Si FOB	
China 72% Si DAP	
Japan 75% Si CIF	
Silicomanganese	
US 65% Mn EXW	
EU 65%Mn DDP	
China 65% Mn DAP	
India 65%Mn FOB	
India 60%Mn FOBIndia 60% Mn EXW	
China 65% Mn FOB Theoretical	
Japan 65% Mn CIF (CN orig.) Theoretical [Discontinued]	
Japan 65% Mn CIF	
Japan 65% Mn CIF (IN orig.)	
China 60% Min DAP	
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 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 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	
India Lump 36-38% 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 (dom.)	
US EMM 99.7% Mn EXWEU EMM 99.7% Mn DDP	
Chrome	
Ferrochrome	
US HC 47-55% Cr EXW [Discontinued]	
EU HC 47-55% Cr DDP Benchmark	
FILLIO AT FEOU O DDD F. M. L. (5)	
EU HC 47-55% Cr DDP Free Market [Discontinued]	

China HC 48-63% Cr CIF (impt.)	
EU HC 54-60% Cr DDP	
US HC 62-70% Cr EXWEU 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	28
China Lump 42% Cr CIF (TR orig.)	
China Conc. 48% Cr CIF (TR orig.)	
China Ore 38-40% Cr CIF (ZA orig.)	28
China Conc. 44% Cr CIF (ZA orig.)	
China UG2 42% Cr CIF (ZA orig.)	
China UG2 42% Cr (ZA orig.) FOT Tianjin	29
Chrome Metal	29
US Aluminothermic 99% Cr EXW	
EU Aluminothermic 99% Cr DDP	30
Molybdenum	21
Workship	١٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠
Ferromolybdenum	
US FeMo 65% Mo EXW	
EU FeMo 65% Mo DDP	
China FeMo 60% Mo DAP	
Molybdenum Oxide	
US Oxide 60% Mo EXW	
EU Oxide 60% Mo EXW	
EU Moly Metal DDP	
•	
Noble Alloys & Minor Metals	33
Ferrotitanium	33
US FeTi 68-72% Ti EXW	
EU FeTi 68-72% Ti DDP	
Ferrotungsten	
US FeW 72-75% W EXW	33
EU FeW 72-75% W DDP	
Ferrovanadium	
US FeV 80% V EXW	34
EU 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% DAP	
China APT 88.5% WO3 FOB	
Vanadium	36
China V2O5 98% V FOB	
China V2O5 98% V DAP (dom.)	
Minor Metals	37
US Antimony 99.65% Sb EXW	
EU Antimony 99.65% Sb EXW	
US Bismuth 99.99% Bi EXW	
EU Bismuth 99.99% Bi EXW	
US Cadmium 99.95% Cd EXW	
EU Cadmium 99.95% Cd EXW	
US Indium 99.99% In EXW EU Indium 99.99% In EXW	
US Selenium 99.5% Se EXW	
EU Selenium 99.5% Se EXW.	
Cobalt	39
EU 99.8% Co DDP	
US 99.8% Co EXW	39
China 99 8% Co DAP	





# **Bulk Ferroalloys**

## **Ferromanganese**

US HC 76% Mn EXW

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

Grade: 76% Mn, 7% C, 1.5% Si, Max 0.25% P, 0.3% S Price basis: US ex-warehouse, per long ton of material

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago, producer plant

Type: Spot

Currency: US dollar in cents

Weight Unit: Long ton

Size: Multiple truckloads

Timing: No more than 16 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 HC 76% Mn DDP

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

Grade: 76% Mn, 7% C, 1.5% Si, Max 0.25% P, 0.3% S Price basis: Delivered, duty paid, per Tonne of material

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Spot
Currency: Euro
Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

China HC 75% Mn DAP

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

Grade: 75% Mn

Price basis: Per mt, delivered steel mill, mainly Hebei

Credit/Payment terms: n/a

Loading Location: Producing plant

Type: Spot
Currency: RMB
Weight Unit: Tonne
Size: 100 t +
Timing: n/a

Main Consumer Markets: Northern China

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

India HC 76% Mn FOB

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

Grade: 76% Mn, 7% C, 1.5% Si, Max 0.25% P, 0.3% S

Price basis: FOB India, per Tonne of material Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Producing plant, additional locations

Type: Spot



Currency: Dollar Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 12 weeks forward
Main Consumer Markets: Europe, Middle East, South East Asia

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

India HC 70% Mn EXW

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

Grade: 70% Mn, 6% C, 1.2% Si, Max 0.3% P, 0.03% S Price basis: Ex-warehouse/Ex-plant, per Tonne of material

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk Loading

Location: Producing plant or warehouse

Type: Spot

Currency: Indian Rupees (INR)

Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 4 weeks forward Main Consumer Markets: Indian inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

China HC 75% Mn FOB Theoretical

DataLab Name: Ferromanganese, High Carbon, 75% Mn, Spot price; China, FOB

Grade: Mn 75%; C 8% max

Price basis: Per mt, FOB port, mainly Tianjin and Fangcheng

Credit/Payment terms: Letter of credit or Wire Transfer

Loading Location: Chinese ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Bulk, typically 25 mt container

Timing: 4-8 weeks

Main Consumer Markets: No markets currently exist

Pricing: Calculated
Duties/Tariffs: Export duty paid

Frequency: Bi-weekly, every Tuesday and Thursday

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

DataLab name: Ferromanganese, High Carbon, 75% Mn, Spot price; Japan, China Origin, CIF

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 Pricina: Calculated Duties/Tariffs: Export duty paid

Japan HC 76% CIF

DataLab Name: Ferromanganese, High Carbon, 76% Mn, Spot price; Japan, CIF

Grade: 76% Mn Price basis: CIF Japan

Credit/Payment terms: Line of credit/Wire transfer

Loading Location: Producer main port

Type: Spot



Currency: USD Weight Unit: Tonne

Size: Bulk, typically 25 mt container Timing: No more than 12 weeks forward

Main Consumer Markets: Japan

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Export duty paid

China HC 65% Mn DAP

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

Grade: 65% Mn

Price basis: Per mt, delivered steel mill, mainly Hebei

Credit/Payment terms: n/a

Loading Location: Producing plant

Type: Spot
Currency: RMB
Weight Unit: Tonne
Size: 100+ t
Timing: n/a

Main Consumer Markets: Northern China

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

US MC 80% Mn EXW

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

Grade: 80% Mn, 1.5% C, Max 0.3% P, 0.2% S, 1% Si

Price basis: US ex-warehouse, per pound Mn

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago, producer plant

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 16 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 MC 81% Mn DDP

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

Grade: 81% Mn, 1.5% C, Max 0.3% P, 0.2% S, 1% Si Price basis: Delivered, duty paid, per pound of material

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Spot
Currency: Euros
Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 12 weeks forward
Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

China MC 75% Mn DAP

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

Grade: 75% Mn, 2% max C

Price basis: Per mt, delivered steel mill, mainly Hebei

Credit/Payment terms: n/a

Loading Location: Producer plant



Type: Spot
Currency: RMB
Weight Unit: Tonne
Size: 100t +
Timing: n/a

Main Consumer Markets: Northern China

Pricing: Business reported by sellers to buyers – no inter-trade

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

#### **China MC 75% Mn FOB Theoretical**

DataLab Name: Ferromanganese, Medium Carbon, 75% Mn, Spot price; China, FOB

Grade: Mn 75%, 2% max C Price basis: FOB China ports

Credit/Payment terms: Line of credit/Wire Transfer Loading Location: Foreign destination ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Bulk, typically 25 mt container

Timing: 4-8 weeks

Main Consumer Markets: No markets currently exist

Pricing: Calculated
Duties/Tariffs: Export duty paid

Frequency: Bi-weekly, every Tuesday and Thursday

#### **US LC 80-85% Mn EXW**

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

Grade: 80-85% Mn, Max 0.5% C, 2% Si, 0.3% P, 0.3% S

Price basis: US ex-warehouse, per pound Mn

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago, producer plant

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 16 weeks forward Main Consumer Markets: US inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

## **Ferrosilicon**

## **US 50% Si EXW [Discontinued]**

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

Grade: 50% S

Price basis: US ex-warehouse or producing plant, per pound Si

Credit/Payment terms: Cash/Net 30-60 standard

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

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



**US 75% Si EXW** 

DataLab Name: Ferrosilicon, 75% Si, Spot price; USA, ex-warehouse Grade: 75% Si, Max 0.1% V, Max 1.5% Al (Standard 2" X 1/2") Price basis: US ex-warehouse or producing plant, per pound Si

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago, producer plant

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 16 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 75% Si DDP

DataLab Name: Ferrosilicon, 75% Si, Spot price; Europe, DDP

Grade: 75% Si, Max 1.5% Al, 0.10% C, 0.04% P, 0.01% S (Standard 10-50mm)

Price basis: DDP, per mt of material (not Si)
Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Spot Currency: Euro Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

US SiC 87-90% Si EXW [Discontinued]

DataLab Name: Ferrosilicon, Silicon carbide, 87-90% Si, Spot price; USA, ex-warehouse

Grade: 87-90% Si, 2-5% C

Price basis: US ex-warehouse, per pound gross material

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: 50 lbs bags

Loading Location: US warehouse, typically Pittsburgh or Chicago, plant

Type: Spot
Currency: US dollar
Weight Unit: Short tons
Size: Multiple truckloads

Size: Multiple truckloads

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

China 75% Si FOB

DataLab Name: Ferrosilicon, 75% Si, Spot price; China, FOB

Grade: 74-80% Si

Price basis: FOB Tianjin port, China Credit/Payment terms: Line of credit/Wire Transfer

Loading Location: Chinese ports - foreign destination ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Typically 25 mt container Timing: Typically 4-8 weeks

Main Consumer Markets: Japan, South Korea, the US, India and Southeast Asia

Pricing: Business reported by sellers to buyers, including producers to traders



Duties/Tariffs: Export duty paid

Frequency: Bi-weekly, every Tuesday and Thursday

China 75% Si DAP

DataLab Name: Ferrosilicon, 75% Si, Spot price; China, DAP

Grade: 75% Si

Price basis: Per mt, delivered steel mill, mainly Hebei

Credit/Payment terms: n/a

Loading Location: Producing plant

Type: Spot
Currency: RMB
Weight Unit: Tonne
Size: 100t +
Timing: n/a

Main Consumer Markets: Northern China

Pricing: Business reported by sellers to buyers – no inter-trade

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

China 72% Si FOB

DataLab Name: Ferrosilicon, 72% Si, Spot price; China, FOB

Grade: 72-74% Si

Price basis: FOB major ports, China Credit/Payment terms: Line of credit/Wire Transfer

Loading Location: Chinese ports - foreign destination ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne
Size: 100t +
Timing: 4-8 weeks

Main Consumer Markets: Japan, South Korea, the US, India and Southeast Asia

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Export duty paid

Frequency: Bi-weekly, every Tuesday and Thursday

China 72% Si DAP

DataLab Name: Ferrosilicon, 72% Si, Spot price; China, DAP

Grade: 72-74% Si

Price basis: Per mt, delivered steel mill, mainly Hebei

Credit/Payment terms: n/a

Loading Location: Producing plant

Type: Spot
Currency: RMB
Weight Unit: Tonne
Size: 100t +
Timing: n/a

Main Consumer Markets: Northern China

Pricing: Business reported by sellers to buyers – no inter-trade

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

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

DataLab Name: Ferrosilicon, 75% Si, Spot price; Japan, China origin. CIF

Grade: Si 75%
Price basis: CIF Japan

Credit/Payment terms: Line of credit/Wire Transfer

Loading Location: Chinese port
Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Bulk, typically 25 mt container

Timing: Typically 4-8 weeks



Main Consumer Markets: Japan

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Export duty paid

Japan 75% Si CIF

DataLab Name: Ferrosilicon, 75% Si, Spot price; Japan, CIF

Grade: Si 75% Price basis: CIF Japan

Credit/Payment terms: Line of credit/Wire transfer Loading Location: Producer main port

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Typically 25 mt container
Timing: No more than 12 weeks forward

Main Consumer Markets: Japan

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Export duty paid

## **Silicomanganese**

US 65% Mn EXW

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

Grade: 65-68% Mn, 16-18.5% Si

Price basis: US ex-warehouse or producing plant, per pound

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 16 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 65%Mn DDP

DataLab Name: Silicomanganese, 65% Mn, Spot price; Europe, DDP

Grade: 65-68% Mn, 16% Si, 2% C, 0.3% P, 0.03% S

Price basis: Delivered, duty paid, per Tonne Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam or producing plant

Type: Spot
Currency: Euro
Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

China 65% Mn DAP

DataLab Name: Silicomanganese, 65% Mn, Spot price; China, DAP

Grade: 65% Mn, 16% Si

Price basis: Per mt, delivered steel mill, mainly Hebei

Credit/Payment terms: n/a

Loading Location: Producing plant

Type: Spot



Currency: RMB
Weight Unit: Tonne
Size: 100t +
Timing: n/a

Main Consumer Markets: Northern China

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

India 65%Mn FOB

DataLab Name: Silicomanganese, 65% Mn, Spot price; India, FOB

Grade: 65% Mn, 16% Si

Price basis: FOB India, per Tonne of material Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Producing plant

Type: Spot
Currency: Dollar
Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: Europe, Middle East, South East Asia

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

India 60%Mn FOB

DataLab Name: Silicomanganese, 60% Mn, Spot price; India, FOB

Grade: 60% Mn, 14% Si, 2.5% C
Price basis: FOB India, per Tonne of material
Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Producing plant

Type: Spot Currency: Dollar Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 12 weeks forward
Main Consumer Markets: Europe, Middle East, South East Asia

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

India 60% Mn EXW

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

Grade: 60% Mn, 14% Si, 2.5% C max, 0.3% P, 0.03% S Price basis: EXW (Ex-warehouse/Ex-plant), per Tonne of material

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk Loading

Location: Producing plant or warehouse

Type: Spot

Currency: Indian Rupees (INR)

Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 4 weeks forward Main Consumer Markets: Indian inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

**China 65% Mn FOB Theoretical** 

DataLab Name: Silicomanganese, 65% Mn, Spot price; China, FOB

Grade: Mn 65%; Si 17%

Price basis: FOB China ports (mostly Tianjin and Fangcheng)



Credit/Payment terms: Line of credit/Wire Transfer

Loading Location: Chinese ports - foreign destination ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Bulk, typically 25 mt container

Timing: 4-8 weeks

Main Consumer Markets: Japan, Africa and Asia

Pricing: Calculated
Duties/Tariffs: Export duty paid

Frequency: Bi-weekly, every Tuesday and Thursday

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

DataLab Name: Siliconmanganese, 65% Mn, Spot price; Japan, China origin, CIF

Grade: Mn 65%; Si 17%
Price basis: CIF Japan
Credit/Payment terms: n/a

Loading Location: Chinese ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Bulk, typically 25 mt container

Timing: n/a
Main Consumer Markets: Japan
Pricing: Calculated
Duties/Tariffs: Export duty paid

Japan 65% Mn CIF

DataLab Name: Silicomanganese, 65% Mn, Spot price; Japan, CIF

Grade: Mn 65%; Si 17% Price basis: CIF Japan

Credit/Payment terms: Line of credit/Wire transfer Loading Location: Producer main port

Type: Spot Currency: US dollar

Weight Unit: Tonne

Size: Bulk, typically 25 mt container Timing: No more than 12 weeks forward

Main Consumer Markets: Japan

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Export duty paid

Japan 65% Mn CIF (IN orig.)

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

Grade: 65% Mn, 16% Si Price basis: CIF Japan

Credit/Payment terms: Line of credit/Wire transfer Loading Location: Producer main port

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Bulk, typically 25 mt container Timing: No more than 12 weeks forward

Main Consumer Markets: Japan

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duties paid

**China 60% Mn FOB Theoretical** 

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: Line of credit/Wire Transfer

Loading Location: Chinese ports - foreign destination ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Bulk, typically 25 mt container

Timing: 4-8 weeks

Main Consumer Markets: Japan, Africa and Asia

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Export duty paid

Frequency: Bi-weekly, every Tuesday and Thursday

China 60% Mn DAP

DataLab Name: Silicomanganese, 60% Mn, Spot price; China, DAP

Grade: 60% Mn, 14% Si

Price basis: Per mt, delivered steel mill, mainly Hebei

Credit/Payment terms: n/a

Loading Location: Producing plant

Type: Spot
Currency: RMB
Weight Unit: Tonne
Size: 100t +
Timing: n/a

Main Consumer Markets: Northern China

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT included, any other duties excluded Frequency: VAT included, any other duties excluded Bi-weekly, every Tuesday and Thursday

#### Silicon Metal

#### US 98.5% Si 5-5-3 EXW

DataLab Name: Silicon Metal, 98.5% Si 5-5-3 Mn, Spot price; USA, ex-warehouse

Grade: 98.5% Si; Max 0.5% Fe; 0.5% Al; 0.3% Ca

Price basis: US ex-warehouse, per pound Si Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago or producing plant

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds
Size: 1-5 truckloads

Timing: No more than 16 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 98.5% Si 5-5-3 DDP

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

Grade: 98.5% Si, Max 0.5% Fe, 0.5% Al, 0.3% Ca

Price basis: Delivered, duty paid, per Tonne Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam or producing plant

Type: Spot
Currency: Euros
Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Not applicable



China 98.5% Si 5-5-3 FOB

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

Grade: Si 98.5% min; Max 0.5% Fe, 0.5% Al, 0.3% Ca

Price basis: FOB Guangzhou Huangpu port, China

Credit/Payment terms: Line of credit/Wire Transfer

Loading Location: Chinese ports - foreign destination ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Bulk, typically 25 mt container

Timing: 4-8 week delivery

Main Consumer Markets: Japan, South Korea, Southeast Asia, India and Europe

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: No export duty

Frequency: Bi-weekly, every Tuesday and Thursday

China 98.5% Si 5-5-3 DAP

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

Grade: Si 98.5% min; Max 0.5% Fe, 0.5% Al, 0.3% Ca

Price basis: Delivered consumer
Credit/Payment terms: Cash/Bank acceptance bill

Loading Location: Producing plant

Type: Spot Currency: RMB Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 12 weeks forward

Main Consumer Markets: China inland

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

Japan 98.5% Si 5-5-3 CIF

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

Grade: Si 98.5% min; Max 0.5% Fe, 0.5% Al, 0.3% Ca

Price basis: CIF Japan

Credit/Payment terms: Line of credit/Wire transfer Loading Location: Country of origin, mostly China

Type: Spot Currency: USD Weight Unit: Tonne

Size: Multiple containers

Timing: No more than 12 weeks forward Main Consumer Markets: Japanese terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duties paid

EU 99% Si 4-4-1 DDP

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

Grade: 99% Si, Max 0.4% Fe, 0.4% Al, 0.1% Ca

Price basis: Delivered, duty paid, per Tonne Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam, producing plant

Type: Spot Currency: Euro Weight Unit: Tonne

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations



Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Not applicable

China 99% Si 4-4-1 FOB

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

Grade: Si 99% min, Max 0.4% Fe, 0.4% Al, 0.1% Ca Price basis: FOB Guangzhou Huangpu port, China

Credit/Payment terms: Line of credit/Wire Transfer

Loading Location: Chinese ports - foreign destination ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: 25 mt per container Timing: 4-8 week delivery

Main Consumer Markets: Japan, South Korea, Southeast Asia, India and Europe

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: No export duty

Frequency: Bi-weekly, every Tuesday and Thursday

China 99% Si 4-4-1 DAP

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

Grade: Si 99% min, Max 0.4% Fe, 0.4% Al, 0.1% Ca

Price basis: Delivered consumer Credit/Payment terms: Cash/Bank acceptance bill

Loading Location: Producing plant

Type: Spot Currency: RMB Weight Unit: Tonne

Size: Multiple truckloads

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: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

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

DataLab Name: Silicon Metal, Polysilicon Trans Si 9-11N, Spot price; USA, ex-warehouse

Grade: 9-11N Si

Price basis: US ex-warehouse, per kilogram Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Big bags

Loading Location: US warehouse, producer plants

Type: Spot
Currency: US dollar
Weight Unit: Kilogram
Size: Tonne s chunks

Timing: No more than 12 weeks forward

Main Consumer Markets: US inland terminals, international procurements

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Not applicable in US

**Manganese Ore** 

China Lump 36-38% Mn CIF

DataLab Name: Manganese Ore, Lump, 36-38% Mn, Spot price; China, CIF

Grade: 36-38% Mn

Price basis: CIF main Chinese port, per dmtu Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk, container Loading Location: Producer main port

Type: Spot



Currency: US dollar Weight Unit: Dry Tonne

Size: 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 Lump 44% Mn CIF

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

Grade: 44% Mn (Range 42-45%)
Price basis: Per dmtu, CIF Chinese main port
Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk, container

Loading Location: Producing nation's main port

Type: Spot
Currency: US dollar
Weight Unit: Dry Tonne

Size: 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 Lump 36-38% Mn FOT Tianjin

DataLab Name: Manganese Ore, Lump, 36-38% Mn, Spot price; China, Tianjin, FOT

Grade: 36-38%

Price basis: FOT Tianjin port, per dmtu

Credit/Payment terms: Cash

Packaging: Bulk, container Loading Location: producing plant

Type: 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

China Lump 44% Mn FOT Tianjin

DataLab Name: Manganese Ore, Lump, 44% Mn, Spot price; China, Tianjin, FOT

Grade: 44% Mn (Range 42-45%)
Price basis: FOT Tianjin port, per dmtu

Credit/Payment terms: Cash

Packaging: Bulk, container Loading Location: Producing plant

Type: 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: 36-38% Mn

Price basis: CIF main India port, per dmtu Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk, container

Loading Location: Producing nation's main port

Type: Spot
Currency: US dollar
Weight Unit: Dry Tonne

Size: Multiple containers or larger
Timing: No more than 12 weeks forward
Main Consumer Markets: India inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: No

## India Lump 44% Mn CIF [Discontinued]

DataLab Name: Manganese Ore, Lump, 44% Mn, Spot price; India, CIF

Grade: 44% Mn (Range 42-45%)

Price basis: Per dmtu unit, CIF India main ports

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk, container

Loading Location: Producing nation's main port

Type: Spot
Currency: US dollar
Weight Unit: Dry Tonne

Size: Multiple containers or larger
Timing: No more than 12 weeks forward
Main Consumer Markets: India inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: No

## **Manganese Metal**

#### China EMM Flake 99.7% Mn FOB

DataLab Name: Manganese Metal, Electrolytic Flake 99.7% Mn, Spot price; China, FOB

Grade: Mn 99.7% min (electrolytic)

Price basis: FOB Guangzhou Huangpu port, China

Credit/Payment terms: Line of credit/Wire Transfer

Loading Location: Chinese ports - foreign destination ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: Bulk, typically 25 mt container

Timing: 4-8 weeks

Main Consumer Markets: Japan, South Korea, the US, India and EU

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: No export duty

Frequency: Bi-weekly, every Tuesday and Thursday



China EMM Flake 99.7% Mn EXW (dom.)

DataLab Name: Manganese Metal, Electrolytic Flake 99.7% Mn, Spot price; China, EXW

Grade: Mn 99.7% min (electrolytic)

Price basis: China ex-works

Credit/Payment terms: Cash

Loading Location: Producing plant

Type: Spot
Currency: RMB
Weight Unit: Tonne
Size: 100 t +
Timing: n/a

Main Consumer Markets: China mainland

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

**US EMM 99.7% Mn EXW** 

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

Grade: 99.7% Mn

Price basis: US ex-warehouse

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Truckload or larger

Timing: No more than 16 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 EMM 99.7% Mn DDP** 

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

Grade: 99.7% Mn

Price basis: Delivered, duty paid, per tonne Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam, or producing plant

Type: Spot
Currency: US dollar
Weight Unit: Tonnes

Size: Truckload or larger

Timing: No more than 12 weeks forward
Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid



## **Chrome**

#### **Ferrochrome**

**US HC 47-55% Cr EXW [Discontinued]** 

DataLab name: Chrome, High Carbon, 47-55% Cr, Spot price; USA, ex-warehouse

Grade: 47-55% Cr,6-8% C

Price basis: US ex-warehouse, contained Cr Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

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 HC 47-55% Cr DDP Benchmark

DataLab Name: Chrome, High Carbon, 47-55% Cr, Benchmark, Spot price; Europe, DDP

Grade: 47-55% Cr, 6-8% C

Price basis: South African benchmark minus average discounts

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Benchmark minus discounts

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: 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

Grade: 47-55% Cr, 6-8% C

Price basis: Delivered, Duty paid, contained Cr

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

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

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

Grade: 49-70% Cr; 6-10% C

Price basis: China ex-producing point/warehouse

Credit/Payment terms: Line of credit/Wire Transfer Loading Location: Major Chinese stainless mills

Type: Spot

Currency: USD cents



Weight Unit: Pounds

Size: Truckload volumes
Timing: 2-8 week delivery time

Main Consumer Markets: China inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT unpaid for US dollar/VAT paid for Chinese yuan

Frequency: Bi-weekly, every Tuesday and Thursday

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

DataLab Name: Chrome, High Carbon, 49-70% Cr, Spot price; China, CIF

Grade: 49-70% Cr; 6% C Price basis: CIF China ports

Credit/Payment terms: Line of credit/Wire Transfer

Loading Location: Major Chinese ports and stainless mills

Type: Spot
Currency: US dollar
Weight Unit: Pounds/Tonne
Size: 25 mt per container
Timing: 4-8 week delivery

Main Consumer Markets: China inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Import duty paid

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

DataLab Name: Chrome, High Carbon, 49-70% Cr, Spot price; China, CIF

Grade: 48-63% Cr; 6-10% C Price basis: CIF China ports

Credit/Payment terms: Line of credit/Wire Transfer

Loading Location: Major Chinese ports and stainless mills

Type: Spot
Currency: US dollar
Weight Unit: Pounds/Tonne
Size: 25 mt per container
Timing: 4-8 week delivery

Main Consumer Markets: China inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Import duty paid

Frequency: Bi-weekly, every Tuesday and Thursday

**EU HC 54-60% Cr DDP** 

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

Grade: 54-60% Cr; 2-4% Si; 0.03-0.04% Ph; 6-8% C

Price basis: Delivered, Duty paid, contained Cr

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

**US HC 62-70% Cr EXW** 

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

Grade: 62-70% Cr; 6-8% C; 1.5% max Si Price basis: US Ex-warehouse, contained Cr Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago



Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

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 HC 62-70% Cr DDP [Discontinued]**

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

Grade: 62-70% Cr; 6-8% C; 1.5% max Si Price basis: Delivered, Duty paid, contained Cr

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

#### **EU HC 65-70% Cr DDP**

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

Grade: 65-70% Cr; 6-8% C; 1.5% max Si Price basis: Delivered, Duty paid, contained Cr

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 12 weeks forward
Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

### EU HC 60-64.9% Cr DDP

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

Grade: 60-64.9% Cr; 6-9% C; 3% max Si Price basis: Delivered, Duty paid, contained Cr

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

**US LC 0.05% C EXW** 

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

Grade: 65-70% Cr; 0.05 C

Price basis: US Ex-warehouse, contained Cr Credit/Payment terms: Cash/Net 30-60 standard



Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds
Size: Minimum 10 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 LC 0.05% C DDP**

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

Grade: 65-70% Cr; 0.05 C

Price basis: Delivered, Duty paid, contained Cr

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Single truckload

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

## **US LC 0.10% C EXW**

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

Grade: 65-70% Cr; 0.10 C

Price basis: US ex-warehouse, contained Cr Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Single truckload

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 LC 0.10% C DDP**

DataLab Name: Chrome, Low Carbon, 0.10% C, Spot price; Europe, DDP

Grade: 65-70% Cr; 0.10 C

Price basis: Delivered, duty paid, contained Cr

Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: Rotterdam warehouse or producing plant, additional locations

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid

#### **US LC 0.15% C EXW**

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

Grade: 65-70% Cr; 0.15 C



Price basis: US ex-warehouse, contained Cr Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds
Size: Single truckload

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

#### **US FeCr/Sr EXW**

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

Grade: 40% Cr; 40% Si
Price basis: US ex-warehouse
Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk

Loading Location: US warehouse, typically Pittsburgh or Chicago

Type: Spot

Currency: US dollar in cents

Weight Unit: Pounds

Size: Multiple truckloads

Timing: No more than 12 weeks forward Main Consumer Markets: US inland terminals/locations

Pricing: Formula price based on US FeSi and US HC FeCr 60-70% Cr

Duties/Tariffs: Duty paid

## Japan HC 60-70% CIF

DataLab Name: Chrome, High Carbon, Spot price; Japan, CIF

Grade: 60-70%

Price basis: CIF major Japanese port, contained Cr

Credit/Payment terms: Cash/Net 30 days

Packaging: Bulk

Loading Location: Producing ports

Type: Spot
Currency: US cents
Weight Unit: Pounds

Size: Multiple containers or larger

Timing: No more than eight weeks forward, with some leeway for holidays

Main Consumer Markets: Japan inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT unpaid

## Japan LC 0.1% CIF

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

Grade: 0.10 C

Price basis: CIF major Japanese port, contained Cr

Credit/Payment terms: Cash/Net 30 days

Packaging: Bulk

Loading Location: Producing ports

Type: Spot
Currency: US cents
Weight Unit: Pounds

Size: Multiple containers or larger

Timing: No more than 12 weeks forward, with some leeway for holidays

Main Consumer Markets: Japan inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT unpaid



### **Chrome Ore**

China Lump 42% Cr CIF (TR orig.)

DataLab Name: Chrome, Lump, 42% Cr, Spot Price; Turkey origin, CIF

Grade: 42% lumpy, 2:6:1 Cr to Fe ratio

Price basis: CIF Chinese main port Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk, container Loading Location: Turkish main port

Type: Spot
Currency: US dollar
Weight Unit: Dry Tonne

Size: 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 Conc. 48% Cr CIF (TR orig.)

DataLab Name: Chrome, Concentrates, 46-48% Cr, Spot price; China, Turkey origin, CIF

Grade: 48% Cr

Price basis: CIF main Chinese port Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk, container Loading Location: Turkish main port

Type: Spot
Currency: US dollar
Weight Unit: Dry Tonne

Size: 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.)

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

Grade: 38-40% lumpy

Price basis: CIF main Chinese port Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk, container

Loading Location: Main South African port

Type: Spot
Currency: US dollar
Weight Unit: Dry Tonne

Size: 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 Conc. 44% Cr CIF (ZA orig.)

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

Grade: 44% Cr

Price basis: CIF Chinese main port Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk, container

Loading Location: Main South African port

Type: Spot



Currency: US dollar Weight Unit: Dry Tonne

Size: 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 UG2 42% Cr CIF (ZA orig.)

DataLab Name: Chrome, UG2 Concentrates, 42% Cr, Spot price; China, South Africa origin, CIF

Grade: 42% Cr

Price basis: CIF main Chinese port Credit/Payment terms: Cash/Net 30-60 standard

Packaging: Bulk, container

Loading Location: Main South African port

Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: 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
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

#### **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

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

Grade: Aluminothermic chrome metal, 99% Cr Price basis: Delivered, Duty Paid, per Tonne Credit/Payment terms: Cash/Net 30-60 standard

Packaging:
Loading Location:
Type:
Currency:
Weight Unit:
Bulk
Rotterdam
Spot
US dollar
Tonne

Size: Partial and Full Truckloads
Timing: No more than 12 weeks forward
Main Consumer Markets: EU inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: Duty paid



# Molybdenum

## Ferromolybdenum

US FeMo 65% Mo EXW

DataLab Name: Molybdenum, FeMo, Spot price; USA, EXW

Grade: 65% min Mo – 0.5% Cu; 1.5% Si; 0.06% P; 0.1% C; 0.1% S.

Price basis: US ex-warehouse Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse; domestic destinations only

Type: Spot
Currency: US dollar
Weight Unit: Pounds of Mo

Size: 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

EU FeMo 65% Mo DDP

DataLab Name: Molybdenum, FeMo, Spot price; Europe, DDP

Grade: 65% min Mo – 0.5% Cu; 1.5% Si; 0.06% P; 0.1% C; 0.1% S.

Price basis: DDP

Credit/Payment terms: Cash/Net 30

Loading Location: Major European ports/warehouse

Type: Spot
Currency: US dollar
Weight Unit: Kilos of Mo

Size: 10 mt to 20 mt (partial and full truckloads)

Timing: No more than 8 weeks forward Main Consumer Markets: European terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

China FeMo 60% Mo DAP

DataLab Name: Molybdenum, FeMo, Spot price; China, DAP

Grade: 60% min Mo
Price basis: Delivered consumer
Credit/Payment terms: Cash/Net 30 days

Type: Spot
Currency: Rmb
Weight Unit: Tonne

Size: 10 mt to 20 mt (partial and full truckloads)

Timing: No more than four weeks forward, with some leeway for holiday

Main Consumer Markets: Chinese mills

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

# **Molybdenum Oxide**

US Oxide 60% Mo EXW

DataLab Name: Molybdenum, Oxide, Spot price; USA, EXW Grade: 60% min Mo – 0.5% Cu, 0.1% P, lead and sulfur

Price basis: US ex-warehouse Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse

Type: Spot Currency: US dollar



Weight Unit: Pounds of Mo

Size: 5 mt packed in bags or drums 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

**EU Oxide 60% Mo EXW** 

DataLab Name: Molybdenum, Oxide, Spot price; Europe, EXW Grade: 60% min Mo - 0.5% Cu, 0.1% P, lead and sulfur

**EXW** Price basis:

Cash/Net 30 Credit/Payment terms: Loading Location: Major Europe ports/warehouse

Type: Spot

Currency: US dollar Weight Unit: Pounds of Mo

Size: 10 mt to 20 mt (partial and full truckloads) packed in bags or drums

Timing: No more than 8 weeks forward Main Consumer Markets: Western Europe terminals/locations

Pricing: Business reported by sellers to buyers - no inter-trade activity

Duties/Tariffs: Duty paid

**Main Asia Ports Oxide CIF** 

DataLab Name: Molybdenum, Oxide, Spot price; Asia, Main ports, CIF 60% min Mo - 0.5% Cu, 0.1% P, lead and sulfur Grade:

Price basis:

CIF Main Asia Ports (other locations in the Asian region may be reflected in the

assessment after normalisation)

Credit/Payment terms: Cash/Net 30 days

Spot Type: Currency: US dollar Weight Unit: Pounds of Mo

10 mt to 20 mt (partial and full truckloads) packed in bags or drums Size: No more than four weeks forward, with some leeway for holiday Timina:

Main Consumer Markets: 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

Pricing: Duties/Tariffs: Duty paid

Frequency: Weekly, every Friday

**EU Moly Metal DDP** 

DataLab Name: EU Mo Metal 99.8% DDP

Grade: 99.8% min Mo

Delivered, Duty Paid, per Kilo Price basis:

Credit/Payment terms: Cash/Net 30

Major Europe ports/warehouse Loading Location:

Spot Type: Currency: US dollar Weight Unit: Kilogramme Size: 5 mt to 20 mt

Timing: No more than 8 weeks forward Main Consumer Markets: Western Europe terminals/locations

Pricing: Business reported by sellers to buyers - no inter-trade activity

Duties/Tariffs: Duty paid



# **Noble Alloys & Minor Metals**

### **Ferrotitanium**

US FeTi 68-72% Ti EXW

DataLab Name: Ferrotitanium, 68-72% Ti, Spot price; USA, ex-warehouse Grade: 68-72% min Ti – max: 0.5% N; 0.2% C; 6% Al; 1% Sn; 3% V

Price basis: US ex-warehouse Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse

Type: Spot
Currency: US dollar
Weight Unit: Pounds of Ti
Size: Minimum 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

EU FeTi 68-72% Ti DDP

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

Grade: 68-72% min Ti – max: 0.5% N; 0.2% C; 6% Al; 1% Sn; 3% V

Price basis: DDP

Credit/Payment terms: Cash/Net 30

Loading Location: Major European ports/warehouse

Type: Spot
Currency: US dollar
Weight Unit: Kilograms of Ti
Size: Minimum 2 mt

Timing: No more than 8 weeks forward Main Consumer Markets: European terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

## **Ferrotungsten**

**US FeW 72-75% W EXW** 

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

Grade: 72-75% min W – 0.5% Si, 0.05% Cu, 0.25% Mn, 0.2% C

Price basis: US ex-warehouse Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse

Type: Spot
Currency: US dollar
Weight Unit: Pounds of W

Size: 2 mt to 10 mt uncrushed 100x10, packed in 100-kilo drums.

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

**EU FeW 72-75% W DDP** 

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

Grade: 72-75% min W – 0.5% Si, 0.05% Cu, 0.25% Mn, 0.2% C

Price basis: DDP Credit/Payment terms: Cash/Net 30

Loading Location: Major European ports/warehouse

Type: Spot



Currency: US dollar
Weight Unit: Kilograms of W
Size: Minimum 2 mt

Timing: No more than 8 weeks forward Main Consumer Markets: European terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

## **Ferrovanadium**

US FeV 80% V EXW

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

Grade: 80% min V – 1.50%max Al; 1.50%max Si; 0.25%max C; 0.05%max S;

0.05%max P

Price basis: US ex-warehouse Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse

Type: Spot
Currency: US dollar
Weight Unit: Pounds of V

Size: 5 mt packed in 25-lb bags of V on pallets

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

EU FeV 80% V DDP

DataLab Name: Ferrovanadium, 80% V, Spot price; Europe, DDP

Grade: 80% min V – 1.50%max Al; 1.50%max Si; 0.25%max C; 0.05%max S;

0.05%max P

Price basis: DDP

Credit/Payment terms: Cash/Net 30

Loading Location: Major Europe ports/warehouse

Type: Spot
Currency: US dollar
Weight Unit: Kilograms of V

Size: Minimum 5 mt packed in 250kg drums or supersacks

Timing: No more than 8 weeks forward Main Consumer Markets: Europe terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: 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

Type: 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: Tungsten Ore, 65% WO3, Spot price; US, ex-warehouse

Grade: 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

Price basis: US ex-warehouse Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse

Type: Spot
Currency: US dollar
Weight Unit: Pounds of W
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

US W APT 88.5% WO3 EXW [Discontinued]

DataLab Name: Tungsten APT, 88.5% WO3, Spot price; USA, ex-warehouse

Grade: 88%.5 WO3
Price basis: US ex-warehouse
Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse

Type: Spot
Currency: US dollar
Weight Unit: Pounds of W
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

China FeW 72-75% W FOB

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

Grade: 72-75% min W – S: 0.08% max; P: 0.05% max; C: 0.4% max; Si: 0.7% max; Mn:

0.5% max

Price basis: Per kg W, fob China

Credit/Payment terms: Cash

Loading Location: Chinese ports
Type: Spot

Type: Spot
Currency: US dollar
Weight Unit: Tonne
Size: 10 mt min
Timing: 1-6 weeks

Main Consumer Markets: Japan, South Korea, the US, and EU

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: No export duty

Frequency: Bi-weekly, every Tuesday and Thursday

China tungsten concentrate 65% WO3 – domestic DAP

DataLab Name: Tungsten Ore, 60% WO3, Spot price; China, DAP

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

Ca: 5% max; Mn: 1.5% max; Cu: 0.25% max; Sn: 0.25% max; SiO2: 7.0% max

Price basis: Per mt, delivered place, mainly Jiangxi

Credit/Payment terms: Cash

Loading Location: Producing plant

Type: Spot
Currency: RMB
Weight Unit: Tonne
Size: 50t min



Timing: n/a

Main Consumer Markets: Middle and east China

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

China APT 88.5% DAP

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

Grade: WO3: 88.5% min

Price basis: Per mt, delivered place, mainly Hunan, Fujian, Sichuan

Credit/Payment terms: Cash

Loading Location: Producing plant

Type: Spot
Currency: RMB
Weight Unit: Tonne
Size: 20t min
Timing: n/a

Main Consumer Markets: Central, eastern and southern China

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT included, any other duties excluded Frequency: Bi-weekly, every Tuesday and Thursday

China APT 88.5% WO3 FOB

DataLab Name: Tungsten APT, 88.5% WO3, Spot price; China, FOB

Grade: WO3: 88.5% min
Price basis: Per mtu WO3, fob China

Credit/Payment terms: Cash

Loading Location: Chinese ports

Type: Spot
Currency: US dollar
Weight Unit: Tonne
Size: 17t min
Timing: 1-6 weeks

Main Consumer Markets: Japan, South Korea, the US, and EU

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: No export duty

Frequency: Bi-weekly, every Tuesday and Thursday

### **Vanadium**

#### **China V2O5 98% V FOB**

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

Type: 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: Vanadium, V2O5 98% V, Spot price; China, DAP

Grade: 98% V
Price basis: DAP China
Credit/Payment terms: Cash/Net 30



Loading Location: Major Chinese ports

Type: Spot

Currency: Chinese RMB
Weight Unit: Tonne
Size: 5 mt to 10 mt

Timing: No more than four weeks forward, with some leeway for holiday

Main Consumer Markets: Chinese inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

Frequency: Bi-weekly, every Tuesday and Thursday

#### **Minor Metals**

#### **US Antimony 99.65% Sb EXW**

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

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

Price basis: US ex-warehouse Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse; domestic destinations only

Type: Spot
Currency: US dollar
Weight Unit: Pounds

Size: 10 mt to 20 mt (partial and full truckloads)

Timing: No more than 8 weeks forward Main Consumer Markets: US inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

#### **EU Antimony 99.65% Sb EXW**

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

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

Price basis: EU ex-warehouse
Credit/Payment terms: Cash/Net 30
Loading Location: Rotterdam
Type: Spot
Currency: US dollar
Weight Unit: Tonne

Size: 10 mt to 20 mt (partial and full truckloads)

Timing: No more than 8 weeks forward Main Consumer Markets: EU inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

#### US Bismuth 99.99% Bi EXW

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

Grade: 99.99% min Bi ingot/shot
Price basis: US ex-warehouse
Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse; domestic destinations only

Type: Spot
Currency: US dollar
Weight Unit: Pounds

Size: 1 mt to 5 mt (small volume lots)
Timing: No more than 8 weeks forward
Main Consumer Markets: US inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

#### EU Bismuth 99.99% Bi EXW

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

Grade: 99.99% min Bi ingot/shot



Price basis: EU ex-warehouse
Credit/Payment terms: Cash/Net 30
Loading Location: Rotterdam
Type: Spot
Currency: US dollar
Weight Unit: Pounds

Size: 1 mt to 5 mt (small volume lots)
Timing: No more than 8 weeks forward
Main Consumer Markets: EU inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

#### US Cadmium 99.95% Cd EXW

DataLab Name: Cadmium, 99.95% Cd, Spot price; USA, ex-warehouse

Grade: 99.95% min Cd sticks
Price basis: US ex-warehouse
Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse; domestic destinations only

Type: Spot
Currency: US dollar
Weight Unit: Pounds

Size: 500 lb to 5 mt (small volume lots)
Timing: No more than 8 weeks forward
Main Consumer Markets: US inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

#### EU Cadmium 99.95% Cd EXW

DataLab Name: Cadmium, 99.95% Cd, Spot price; Europe, ex-warehouse

Grade: 99.95% min Cd sticks
Price basis: EU ex-warehouse
Credit/Payment terms: Cash/Net 30
Loading Location: Rotterdam
Type: Spot
Currency: US dollar
Weight Unit: Pounds

Size: 500 lb to 5 mt (small volume lots)
Timing: No more than 8 weeks forward
Main Consumer Markets: US inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

#### US Indium 99.99% In EXW

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

Grade: 99.99% min In
Price basis: US ex-warehouse
Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse; domestic destinations only

Type: Spot
Currency: US dollar
Weight Unit: Kilos
Size: 100 kg lots

Timing: No more than 8 weeks forward Main Consumer Markets: US inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

## EU Indium 99.99% In EXW

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

Grade: 99.99% min In
Price basis: EU ex-warehouse
Credit/Payment terms: Cash/Net 30



Loading Location:RotterdamType:SpotCurrency:US dollarWeight Unit:KilosSize:100 kg lots

Timing: No more than 8 weeks forward Main Consumer Markets: EU inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

## US Selenium 99.5% Se EXW

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

Grade: 99.5% min Se – min 200 mesh

Price basis: US ex-warehouse Credit/Payment terms: Cash/Net 30

Loading Location: Major US ports/warehouse; domestic destinations only

Type: Spot
Currency: US dollar
Weight Unit: Pounds

Size: 500kg to 5 mt (small lot transactions)
Timing: No more than 8 weeks forward
Main Consumer Markets: US inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

### EU Selenium 99.5% Se EXW

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

Grade: 99.5% min Se – min 200 mesh

Price basis: EU ex-warehouse
Credit/Payment terms: Cash/Net 30
Loading Location: Rotterdam
Type: Spot
Currency: US dollar
Weight Unit: Pounds

Size: 500kg to 5 mt (small lot transactions)
Timing: No more than 8 weeks forward
Main Consumer Markets: EU inland terminals/locations

Pricing: Business reported by sellers to buyers – no inter-trade activity

Duties/Tariffs: Duty paid

### Cobalt

#### **EU 99.8% Co DDP**

DataLab Name: Cobalt, 99.8% Co, Spot price; Europe, DDP

Grade: 99.8% min Co

Price basis: Delivered, duty paid, per pound Credit/Payment terms: Cash/Net 30-60 standard

Loading Location:RotterdamType:SpotCurrency:US DollarWeight Unit:PoundSize:min 1 tonne

Timing: No more than 8 weeks forward Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

**US 99.8% Co EXW** 

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

Grade: 99.8% min Co Price basis: US ex-warehouse



Credit/Payment terms: Cash/Net 30-60 standard

Loading Location: Major US ports/warehouse; domestic destinations only

Type: Spot
Currency: US Dollar
Weight Unit: Pound
Size: min 1 tonne

Timing: No more than 8 weeks forward
Main Consumer Markets: European inland terminals/locations

Pricing: Business reported by sellers to buyers, including producers to traders

## China 99.8% Co DAP

DataLab Name: Cobalt, 99.8% Co, Spot price; China, DAP

Grade: 99.8% min Co

Price basis: DAP

Credit/Payment terms: Bank acceptance (other payment normalized)

Loading Location: Producer plant Type: Spot - Assessed

Currency: RMB

Weight Unit: Metric ton of material Size: Min lot size 1 tonne

Timing: No more than 4 weeks forward

Main Consumer Markets: China

Pricing: Business reported by sellers to buyers, including producers to traders

Duties/Tariffs: VAT included, any other duties excluded

Frequency: Weekly, every Friday