

Non-ferrous Prices



Methodology and price
specifications – February 2020

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Mission statement

Fastmarkets is a leading commodity price reporting agency (PRA) covering the metals, mining, minerals and forest products industries. Our products include Fastmarkets MB, Fastmarkets AMM, Fastmarkets IM, Fastmarkets RISI, Fastmarkets FOEX and Random Lengths. For more than 100 years we have been providing commodities price reporting services for use by market participants in their day-to-day commercial activities. These services include assessments and indices of commodity prices as well as news, research and commentary on the underlying markets.

Our mission is to meet the market's data requirements honestly and independently, acting with integrity and care to ensure that the trust and confidence placed in the reliability of our pricing methodologies is maintained. We do not have a vested interest in the markets on which we report.

Introduction

Fastmarkets MB is the leading global provider of pricing intelligence for the non-ferrous metal, steel, steelmaking raw materials, industrial minerals, ferrous and non-ferrous scrap markets, producing price assessments since 1913.

Fastmarkets MB reporters are required to abide by a code of conduct and clear pricing procedures during their market reporting and pricing activities. Fastmarkets is completely independent and has no vested commercial interest in any of the markets it prices.

We are the world's largest dedicated metals price reporting team. We have offices in London, New York, Pittsburgh, Shanghai, Hong Kong, Sao Paulo, Melbourne, Singapore, Mumbai, Dnepr, Istanbul and five other US locations.

The aim of this document is to provide a clear overview of Fastmarkets MB's methodology and specifications for the prices it assesses.

If you have any questions, please contact Fastmarkets Editorial Director Alex Harrison at aharrison@fastmarkets.com.

Price discovery and methodology

Methodology rationale

Fastmarkets MB produces independent, fair and representative price assessments and indices of non-ferrous prices on a daily, bi-weekly, weekly or monthly basis.

Fastmarkets MB's rationale is to adopt and develop the price discovery process and methodology described in this guide to produce assessments that are a consistent and representative indicator of value of the market to which they relate for the trading period they cover.

During the price discovery process, the price reporter's goal is to discover at what representative level market participants have concluded business, made offers or received bids over a certain defined trading period – this is generally the period since the conclusion of the previous price quotation (if, for instance, the last price assessment published by Fastmarkets MB was on Friday 2-3pm London time and our next assessment is due on the following Friday at 2-3pm London time, we will accept price data for business conducted and reported to Fastmarkets MB between Friday afternoon and the following Friday morning).

The time period, or window, identified to assess a market (eg, daily, bi-weekly, weekly, monthly) is determined by Fastmarkets MB after considering the number of data points that Fastmarkets MB can reasonably expect to collect on a consistent basis over the selected period to support the price assessment process.

Data collection criteria

Fastmarkets MB reporters aim to talk to a broad sample of market participants specifically involved in the buying and selling of the non-ferrous product of interest, with a good representation of both sides of the market, including producers and consumers, as well as traders.

Data is collected from market participants directly involved in spot business primarily by telephone but also by email, digital messaging or by direct submission. All input data received is kept confidential and stored on a secure network.

Fastmarkets MB encourages organisations to submit all their pricing data, especially all the concluded transactions.

Depending on market liquidity, Fastmarkets MB reserves the right to also base its prices on bids, offers, deals heard and market participants' assessments or indications of prevailing values.

Fastmarkets MB welcomes organisations to submit transaction data from authorised back-office functions.

Price specifications and reference units

Fastmarkets MB has clear specifications for all the price points that it covers. All the reference units, such as currency and volume, are in line with the trading conventions used in the recognised non-ferrous metals markets.

Fastmarkets MB's specifications detail the material's characteristics or quality, location, incoterm, payment terms and the minimum volume accepted. These specifications are determined in consultation with market participants and follow industry convention. Reporters ensure that the information they receive matches these specifications.

Guidelines that control the exercise of judgment by price reporters during the assessment process

To produce the price assessment, greater weighting is generally given to actual concluded transaction data; bids/offers are second in order of importance; followed by data sources' own assessment of the market when they have no business to report. But other considerations might also intervene such as, the trustworthiness of a data source based on past data submissions or their willingness to provide data on a consistent basis.

All Fastmarkets MB price specifications define the minimum lot size accepted. When volume information is available, this is also taken into consideration in the assessment process. For instance, a deal with a bigger volume will typically carry more weight than a smaller-volume transaction. But price reporters will also consider, for instance, normalizing or discarding a price reported for a deal with an abnormally large or small volume.

Since commodity markets differ in liquidity levels at different periods, the methodology does not set any minimum number, or threshold, of transactions to be gathered on which to base the assessment.

Calculation of averages

Fastmarkets produces independent, fair and representative price assessments and indices of ferrous, non-ferrous and scrap metal prices on a daily, biweekly, weekly, bi-monthly or monthly basis.

Fastmarkets calculates and publishes monthly averages based on these independent, proprietary assessments and indices in two distinct ways: simple averages and rolling averages.

Simple average

Fastmarkets' simple monthly averages, traditionally published by Fastmarkets MB, are calculated by dividing the sum of the price quotations by the number of quotations published during the calendar month. For assessments, Fastmarkets derives both the monthly average high price and the Fastmarkets monthly average low price using this method. For indices, a single monthly average price point is calculated.

For example, there were five weekly price quotations for Chrome Ore South Africa UG2 concentrates index basis 42% cif China, \$ per tonne during the month of June 2018. Prices were published each Friday from June 1, 2018, with the assessments reading \$206 per tonne, \$208 per tonne, \$210 per tonne, \$211 per tonne and \$208 per tonne during the period. The simple monthly average is calculated by taking the sum of the five assessments and dividing that by the number of total assessments over the period - in this case, five. The simple monthly average for June 2018 was \$208.60 per tonne.

Most prices produced outside of the Americas are typically calculated on a simple-average basis.

Rolling average

Fastmarkets' rolling monthly averages, traditionally published by Fastmarkets AMM, are calculated by dividing the sum of the daily price quotations by the number of the quotations published during the calendar month. In a rolling average scenario, prices are published on a daily basis, regardless of how frequently they are updated. Daily price quotations are rolled for working days until the following price change, excluding holidays and weekends. No pricing input is published on holidays or weekends.

For example, there were five weekly price quotations for Chrome Ore South Africa UG2 concentrates index basis 42% cif China, \$ per tonne during the month of June 2018, with the first price update made on Friday, June 1. According to Fastmarkets' calculation, the price assessment from Friday is rolled over and republished on

the Monday, Tuesday, Wednesday and Thursday of the following week, with the newly updated price published each Friday. The rolling monthly average is then calculated by taking the sum of all daily published prices and dividing it by the 21 total inputs over the period. The rolling monthly average price for June 2018 is therefore \$208.71 per tonne.

Most prices produced from the Americas are typically calculated on a rolling-average basis.

Third-party price data

Fastmarkets also publishes prices from external sources including:

Exchange prices – London Metal Exchange, Comex and the Shanghai Futures Exchange

For contract specifications and pricing information on these prices please refer to the individual company' website.

Fastmarkets MB indices

Fastmarkets MB's prices also include the following non-ferrous indices:

- Fastmarkets MB Alumina Index
- Fastmarkets MB Manganese Ore Indices
- Fastmarkets MB Copper Concentrates Index
- Fastmarkets MB Lithium Carbonate Index
- Fastmarkets MB Chrome Ore Index

The **methodologies are available on the Fastmarkets website.**

Base metals

Alumina

CHINA

MB-ALU-0001 Alumina metallurgical grade, ddp China, yuan/tonne

Quality:	Metallurgical-grade alumina
Quantity:	Min 1,000 tonnes
Location:	Delivered duty paid China
Unit:	RMB/tonne
Payment terms:	Cash, within one week
Publication:	Weekly. Thursday 2-3pm London

AUSTRALIA

MB-ALU-0002 Alumina index, fob Australia, \$/tonne

Quality:	Smelter-grade alumina, minimum purity of 98.5% Al ₂ O ₃
Quantity:	10,000 tonnes
Location:	fob Bunbury/Kwinana (other ports normalized)
Timing:	Within 2 months
Unit:	USD/dry metric tonne
Payment Terms:	30 days after loading
Publication:	Daily at 4pm London time
Notes:	Bulk carrier. Full methodology available here :

BRAZIL

MB-ALU-0010 Alumina index inferred, fob Brazil, \$/dmt

Quality:	Smelter grade alumina, minimum purity of 98.5% Al ₂ O ₃
Quantity:	10,000 tonnes
Location:	fob Vila do Conde, Brazil (other ports normalized)
Timing:	Within 2 months
Unit:	USD/dry metric tonne
Payment terms:	30 days after loading
Publication:	Fortnightly. Thursday at 4pm London time
Notes:	Bulk carrier. Full methodology available here

Bauxite

Please see **Ores** section.

Calcined pet coke (petroleum)

UNITED STATES

MB-AL-0357 Calcined Pet Coke, aluminium anode grade, fob US Gulf Coast, \$/tonne

Quality:	Aluminium anode grade, 3% sulfur
Quantity:	Min 5,000 tonnes
Location:	FOB US Gulf coast
Timing:	Within 4 weeks
Unit:	USD/tonne
Publication:	Monthly, first Thursday of the month, 3-4pm London time

CHINA

MB-AL-0358 Calcined Pet Coke, aluminium anode grade, fob China, \$/tonne

Quality:	Aluminium anode grade, 3% sulfur
Quantity:	Min 5,000 tonnes
Location:	FOB China
Timing:	Within 4 weeks
Unit:	USD/tonne
Publication:	Monthly, first Thursday of the month, 3-4pm London time

Aluminium P1020A

JAPAN

MB-AL-0001 Aluminium P1020A (MJP) quarterly premium, cif Japan, \$/tonne

Quality:	P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot, T-bar, sow
Quantity:	500 tonnes
Location:	cif main Japanese ports (Yokohama, Nagoya and Osaka), premium on top of LME cash prices
Timing:	Within the quarter
Unit:	USD/tonne
Payment terms:	Cash against documents (2 days after Bill of lading date)
Publication:	Quarterly
Notes:	Full methodology available here

MB-AL-0343 Aluminium P1020A (MJP) spot premium, cif Japan, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max) in line with LME specifications. Ingot, T-bar, sow

Quantity: Min 100 tonnes

Location: cif in main Japanese ports at Yokohama, Nagoya and Osaka, premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash against documents (2 days after Bill of lading date)

Publication: Twice weekly. Tuesday and Friday by 4pm London time

Notes: Excluding metal from LME warehouses and metal subject to international sanctions. Assessed by Fastmarkets' Singapore office

SOUTH KOREA

MB-AL-0344 Aluminium P1020A premium, cif South Korea, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot, T-bar, sow

Quantity: Min 100 tonnes

Location: Cif in main South Korean ports (Gwangyang, Busan or Incheon), premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash against documents (2 days after Bill of lading date)

Publication: Weekly. Tuesday 3-4pm London

MB-AL-0307 Aluminium P1020A premium, fca South Korea, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot, T-bar, sow

Quantity: Min 100 tonnes

Location: FCA South Korea (Gwangyang, Busan or Incheon), premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash against documents (2 days after Bill of lading date)

Publication: Weekly. Tuesday 3-4pm London

CHINA

MB-AL-0345 Aluminium P1020A premium, cif Shanghai, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot

Quantity: Min 100 tonnes

Location: cif Shanghai, premium on top of LME cash prices

Unit: USD/tonne

Timing: Within 4 weeks

Payment terms: Letter of Credit or Telegraphic Transfer, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London

MB-AL-0328 Aluminium P1020A premium, bonded in-whs, Shanghai, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max)

Quantity: 100 tonnes

Location: In-bonded warehouse in Shanghai, premium on top of LME cash prices

Unit: USD/tonne

Timing: Within 4 weeks

Form: Ingot

Payment terms: Letter of Credit or Telegraphic Transfer, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London

TAIWAN

MB-AL-0329 Aluminium P1020A premium, cif Taiwan, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot

Quantity: Min 100 tonnes

Location: Cif main Taiwanese ports (Taipei, Kaohsiung or Keelung), premium on top of LME cash prices

Unit: USD/tonne

Payment terms: Letter of Credit or Telegraphic Transfer, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London

SOUTHEAST ASIA & EAST ASIA

MB-AL-0333 Aluminium P1020A warrant premium, in-whs Southeast Asia, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot, T-bar, sow

Quantity: Min 25 tonnes

Location: In any LME-approved warehouse in Singapore and in Malaysia (Johor, Port Klang), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne other terms normalized

Payment terms: Cash against documents (7 days after bill of lading date);

Publication: Weekly. Tuesday 3-4pm London

MB-AL-0334 Aluminium P1020A, warrant premium, in-whs East Asia, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot, T-bar, sow

Quantity: Min 25 tonnes

Location: In any LME-approved warehouse in Taiwan (Kaohsiung) and South Korea (Gwangyang, Busan or Incheon), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash against documents (7 days after bill of lading date); other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

EUROPE

MB-AL-0346 Aluminium P1020A premium, in-whs dup Rotterdam, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot

Quantity: Min 100 tonnes

Location: In-warehouse Rotterdam duty-unpaid, premium on top of LME cash prices

Unit: USD/tonne

Timing: Within 4 weeks

Payment terms: Cash against documents (7 days after bill of lading date); other terms normalized

Publication: Daily. 3-4pm London time

MB-AL-0004 Aluminium P1020A premium, in-whs dp Rotterdam, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot

Quantity: Min 100 tonnes

Location: In-warehouse Rotterdam duty-paid, premium on top of LME cash prices

Unit: USD/tonne

Timing: Within 4 weeks

Payment terms: Cash against documents (7 days after bill of lading date); other terms normalized

Publication: Twice weekly. Tuesday and Friday 3-4pm London

MB-AL-0316 Aluminium P1020A premium, fca dp Italy, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot

Quantity: Min 100 tonnes

Location: Free-carrier duty-paid Italy (north and south of country), premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash against documents (7 days after bill of lading date); other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-AL-0319 Aluminium P1020A premium, fca dp Spain, \$/tonne

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot

Quantity: Min 100 tonnes

Location: free-carrier duty-paid Spain, premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash against documents (7 days after bill of lading date); other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

TURKEY

MB-AL-0337	Aluminium P1020A premium, cif dup Turkey, \$/tonne
Quality:	P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot
Quantity:	Min 100 tonnes
Location:	CIF duty-unpaid Turkey (Marmara region), premium on top of LME cash prices
Timing:	Within 4 weeks
Unit:	USD/tonne
Payment terms:	Cash against documents (7 days after bill of lading date); other terms normalized
Publication:	Weekly. Tuesday, 3-4pm London time

UNITED STATES

MB-AL-0338	Aluminium P1020A warrant premium, in-whs US, \$/tonne
Quality:	P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot, T-bar, sow
Quantity:	25 tonnes
Location:	In any LME-approved warehouse in the USA (10 delivery points in June 2017), premium on top of LME cash prices
Timing:	Prompt Release
Unit:	USD per ttonne
Payment terms:	Cash against documents (7 days after bill of lading date); other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-AL-0232	Aluminium P1020A premium, ddp Midwest US, \$/lb
Quality:	P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot
Quantity:	Min 25 tonnes
Location:	Delivered consumer works Midwest USA, premium on top of LME cash prices
Timing:	Within 4 weeks
Unit:	USD per lb
Payment terms:	30 days, other payment terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-AL-0355

Aluminium P1020A premium, cif Baltimore, US cents/lb	
Quality:	P1020A or 99.7% minimum aluminium purity (silicon 0.10% maximum, iron 0.20% maximum). Ingot
Quantity:	Min 100 tonnes
Location:	Shipped to ports in Baltimore, Maryland, premium on top of London Metal Exchange cash prices, net back to Baltimore
Timing:	Within 4 weeks
Unit:	US cents per lb
Payment terms:	30 days, other payment terms normalized
Publication:	Weekly

BRAZIL

MB-AL-0022	Aluminium P1020A premium, cif dup Brazilian main ports, \$/tonne
Quality:	P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot, T-bar, sow
Quantity:	Min 100 tonnes
Location:	cif Brazil ports duty unpaid, excluding VAT, premium on top of LME cash prices
Timing:	Within 30-60 days
Unit:	USD/tonne
Payment terms:	Cash against documents (7 days after bill of lading date), other payment terms normalized
Publication:	Weekly. Tuesday 3-4pm London
Notes:	All origins except China

MB-AL-0021	Aluminium P1020A premium, delivered Sao Paulo region, \$/tonne
Quality:	P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot
Quantity:	Min 100 tonnes
Location:	Delivered in São Paulo region duty-paid, VAT not included, premium on top of LME cash prices
Timing:	Within 4 weeks
Unit:	USD/tonne
Payment terms:	Cash against documents (7 days after bill of lading date); other payment terms normalized
Publication:	Weekly. Tuesday 3-4pm London

Aluminium billet

EUROPE

MB-AL-0002 Aluminium 6063 extrusion billet premium, in-whs dp Rotterdam, \$/tonne

Quality: Aluminium Assn specification AA6063: Si 0.2-0.6% max, Mg 0.45-0.9% max, Fe 0.35% max, Cu 0.1% max, Cr 0.1% max, Zn 0.1% max, Ti 0.1% max, Others each 0.05% max, total 0.15% max. Extrusion billet with outside diameter of 6", 7" and 8"

Quantity: Min 100 tonnes

Location: In-warehouse Rotterdam duty-paid premium on top of LME cash prices

Timing: Within 2 months

Unit: USD/tonne

Payment terms: Cash against documents (7 days after bill of lading date)

Publication: Weekly. Friday 3-4pm London

MB-AL-0302 Aluminium 6063 extrusion billet premium, ddp North Germany (Ruhr region), \$/tonne

Quality: Extrusion billet AA6063: Si 0.2-0.6% max, Mg 0.45-0.9% max, Fe 0.35% max, Cu 0.1% max, Cr 0.1% max, Zn 0.1% max, Ti 0.1% max, others each 0.05% max, total 0.15% max. Billet with diameter of 6", 7" and 8"

Quantity: Min 100 tonnes

Location: Delivered in North Germany (Ruhr region) duty-paid premium on top of LME cash price

Timing: Within 2 months

Unit: USD/tonne

Payment terms: 30-day payment terms, other payment terms normalized

Publication: Weekly. Friday between 3pm and 4pm London time

MB-AL-0299
Aluminium 6063 extrusion billet premium, ddp Spain, \$/tonne

Quality: Extrusion billet AA6063. Billet with diameter of 6", 7" and 8"

Quantity: Min 100 tonnes

Location: Delivered in Spain (Bilbao region), duty-paid premium on top of LME cash prices

Timing: Within 2 months

Unit: USD/tonne

Payment terms: 60-day payment, other payments terms normalized

Publication: Fortnightly. Friday 3-4pm London time

MB-AL-0300
Aluminium 6063 extrusion billet premium, ddp Italy (Brescia region), \$/tonne

Quality: Extrusion billet AA6063. Billet with diameter of 6", 7" and 8"

Quantity: 25 tonnes

Location: Delivered in Italy (Brescia region) duty-paid premium on top of LME cash prices

Timing: Within 2 months

Unit: USD/tonne

Payment terms: 60-day payment, other payments terms normalized

Publication: Weekly. Friday between 3pm and 4pm London time

UNITED STATES

MB-AL-0052
Aluminum 6063 extrusion billet premium, delivered Midwest US, US cents/lb

Quality: Extrusion billet AA6063. Billet with diameter of 6", 7" and 8"

Quantity: Min 100 tonnes

Location: Delivered into US Midwest region, duty-unpaid premium on top of the P1020A ingot Midwest premium and LME cash prices

Timing: Within 2 months

Unit: US cents/lb

Payment terms: 30-day payment, other payments terms normalized

Publication: Fortnightly. Friday between 3pm and 4pm London time

SOUTHEAST ASIA

MB-AL-0297	Aluminium 6063 extrusion billet premium, cif Thailand, \$/tonne
Quality:	Extrusion billet AA6063. Billet with diameter of 6", 7" and 8"
Quantity:	100 tonnes
Location:	Cif delivery into main Thai ports, duty-paid premium on top of LME cash prices.
Timing:	Within 2 months
Unit:	USD/tonne
Payment terms:	Cash against documents (7 days after bill of lading date), other payments terms normalized
Publication:	Every 28 days. Friday between 3pm and 4pm London time

JAPAN

MB-AL-0298	Aluminium 6063 extrusion quarterly billet premium, cif MJP, \$/tonne
Quality:	Extrusion billet AA6063. Billet with diameter of 6", 7" and 8"
Quantity:	Min 100 tonnes
Location:	cif in Major Japanese Ports (MJP), duty-paid premium on top of the P1020A ingot MJP premium and LME cash prices
Timing:	Within 2 months
Unit:	USD/tonne
Payment terms:	Cash against documents (7 days after bill of lading date), other payments terms normalized
Publication:	Quarterly on the third Friday of the first month of the quarter. 3-4pm London time

TURKEY

MB-AL-0296	Aluminium 6063 extrusion billet premium, cif Turkey (Marmara region), \$/tonne
Quality:	Extrusion billet AA6063. Billet with diameter of 6", 7" and 8"
Quantity:	100 tonnes
Location:	cif Turkey (Marmara region), duty-paid premium on top of LME cash prices
Timing:	Within 2 months
Unit:	USD/tonne
Payment terms:	Cash, other payments terms normalized
Publication:	Fortnightly. Friday between 3pm and 4pm London time

BRAZIL

MB-AL-0287	Aluminium 6063 & 6060 extrusion billet premium, cif Brazilian main ports, \$/tonne
Quality:	Extrusion billet AA6063 and AA6060. Billet with diameter of 6", 7" and 8"
Quantity:	100 tonnes
Location:	cif Brazil
Timing:	Within 2 months
Unit:	USD/tonne
Payment terms:	Cash against documents (7 days after bill of lading date), other payments terms normalized
Publication:	Fortnightly. Friday between 3pm and 4pm London time

Aluminium extrusion products

EUROPE

MB-AL-0359	Aluminium 6063 Extrusion conversion margin, exw Germany, \$/tonne
Quality:	Standard extruded shapes and dimensions
Quantity:	Min 500kg
Location:	Ex-works Germany
Timing:	Within 4 weeks
Unit:	USD/tonne
Payment terms:	30-day payment terms, other terms normalized
Publication:	Monthly, first Thursday of the month, 3-4pm London time
Notes:	Margins are on top of LME cash prices and Fastmarkets MB's all-in in-warehouse Rotterdam duty-paid extrusion billet premium, which includes the P1020A premium and the billet premium for converting metal to billet

UNITED STATES

MB-AL-0360	Aluminium 6063 Extrusion conversion margin, exw US Midwest, cents/lb
Quality:	Standard extruded shapes and dimensions
Quantity:	Min 500kg
Location:	Ex-works US Midwest
Timing:	Within 4 weeks
Unit:	US cents/lb
Payment terms:	30-day payment terms, other terms normalized
Publication:	Monthly, first Thursday of the month, 3-4pm London time
Notes:	Margins are on top of LME cash prices, Fastmarkets MB's US Midwest billet premium and Fastmarkets MB's US Midwest P1020A premium

Aluminium flat-rolled products

EUROPE

MB-AL-0361	Aluminium FRP 1050 sheet conversion margin, exw Germany, \$/tonne
Quality:	1050 H14 sheet 1.25-1.5 by 2m; Gauge 1.0-3mm. Margins for coil accepted and netted back to sheet if possible
Quantity:	Min 5 tonnes
Location:	Ex-works Germany
Timing:	Within 4 weeks
Unit:	USD/tonne
Payment terms:	30-day payment terms, other terms normalized
Publication:	Monthly, first Thursday of the month, 3-4pm London time
Notes:	Margins are on top of LME cash prices and Fastmarkets MB's P1020A in-warehouse Rotterdam duty-paid premium

UNITED STATES

MB-AL-0362	Aluminium FRP 5052 sheet conversion margin, exw US, cents/lb
Quality:	5052 H32 smooth sheet 1.25-1.5x2m; gauge: 1.0-3mm. Margins for coil accepted and netted back to sheet if possible
Quantity:	Min 5 tonnes
Location:	Ex-works US; other locations normalized if possible
Timing:	Within 4 weeks
Unit:	US cents/lb
Payment terms:	30-day payment terms, other terms normalized
Publication:	Monthly, first Thursday of the month, 3-4pm London time.
Notes:	Margins are on top of LME cash prices and Fastmarkets MB's P1020A US Midwest P1020A duty-paid premium

CHINA

MB-AL-0363	Aluminium FRP 5000 sheet conversion margin, exw China, \$/tonne
Quality:	5000 export indicator price. H32 1.25-1.5 by 2m; Gauge 1.0-3mm. Margins for coil accepted and netted back to sheet if possible
Quantity:	Min 5 tonnes
Location:	Ex-works China
Timing:	Within 4 weeks
Unit:	USD/tonne
Payment terms:	30-day payment terms, other payment terms normalized
Publication:	Monthly, first Thursday of the month, 3-4pm London time
Notes:	Margins are on top of LME cash prices

Aluminium foundry alloys

EUROPE

MB-AL-0339	Aluminium wheel alloy silicon 7 ingot premium, ddp Germany, \$/tonne
Quality:	Primary Foundry Alloy silicon 7 AlSi7Mg0.3-0.6 for wheel production. Ingot
Quantity:	100 tonnes
Location:	Delivered in Germany, duty paid premium on top of LME cash prices
Timing:	Within 2 months
Unit:	USD/tonne
Payment terms:	30-day payment terms, other payments terms normalized
Publication:	Monthly. 2nd Friday of the month between 3pm and 4pm London time

MB-AL-0340

Aluminium wheel alloy silicon 7 ingot premium, ddp Eastern Europe, \$/per tonne

Quality:	Primary Foundry Alloy silicon 7 AlSi7Mg0.3-0.6 for wheel production. Ingot
Quantity:	Min 100 tonnes
Location:	Delivered in Eastern Europe (Poland, Slovakia, Austria, Hungary, Czech Republic), duty-paid premium on top of LME cash prices
Timing:	Within 2 months
Unit:	USD/tonne
Payment terms:	30-day payment terms, other payments terms normalized
Publication:	Monthly. 2nd Friday of the month between 3pm and 4pm London time

TURKEY

MB-AL-0341

Aluminium wheel alloy silicon 7 ingot premium, cif dup over P1020A Turkey, \$/tonne

Quality:	Primary Foundry Alloy silicon 7 AlSi7Mg0.3-0.6 for wheel production. Ingot
Quantity:	100 tonnes
Location:	Cif in Turkey (Marmara region), duty-unpaid premium on top of P1020A ingot premium and LME cash prices
Timing:	Within 2 months
Unit:	USD/tonne
Payment terms:	Cash, other terms normalized
Publication:	Monthly. 2nd Friday of the month between 3pm and 4pm London time

UNITED STATES

MB-AL-0342	Aluminium wheel alloy silicon 7 ingot/T-bar premium, dlvd dup over P1020A Midwest US, US cents/lb
Quality:	Primary Foundry Alloy silicon 7 A356.2 for wheel production. Ingot or T-bar
Quantity:	Min 100 tonnes
Location:	Delivered in US Midwest region, duty-unpaid premium on top of P1020A ingot Midwest premium and LME cash prices
Timing:	Within 2 months
Unit:	US cents /lb
Payment terms:	7-30 day payment, other terms normalized
Publication:	Monthly. 2nd Friday of the month between 3pm and 4pm London time

Copper concentrate

ASIA PACIFIC

MB-CU-0287	Copper concentrates TC index, cif Asia Pacific, \$/dmtu
Quality:	Concentrate. Copper content 28%; Au 1.1g/dmt; Ag 75g/dmt; S 32%; Fe 28%; Pb 0.07%; Zn 2%; As 0.17%; Sb 0.018%; Hg 2.5ppm; Bi 145ppm
Quantity:	Min 5,000 tonnes
Location:	cif Asia Pacific
Unit:	USD/tonne
Timing:	Within 13 weeks
Payment terms:	Letter of credit, quotation period M+3
Publication:	Every Friday at 4pm London time
Notes:	Full methodology available here .

MB-CU-0288

Copper concentrates RC index, cif Asia Pacific, \$/dmtu	
Quality:	Concentrate. Copper content 28%; Au 1.1g/dmt; Ag 75g/dmt; S 32%; Fe 28%; Pb 0.07%; Zn 2%; As 0.17%; Sb 0.018%; Hg 2.5ppm; Bi 145ppm
Quantity:	Min 5,000 tonnes
Location:	cif Asia Pacific
Unit:	US cents/lb
Timing:	Within 13 weeks
Payment terms:	Letter of credit, quotation period M+3
Publication:	Every Friday at 4pm London time
Notes:	Full methodology available here .

Blister copper

CHINA

MB-CU-0408

Copper blister 98-99% RC spot, cif China, \$/tonne	
Quality:	Blister copper of 98-99% copper content, with varying payables
Location:	CIF China
Timing:	Within 2 months
Unit:	USD per tonne
Publication:	Monthly, last day of the month, 3-4pm London time
Notes:	Single number and range

MB-CU-0409

Copper blister 98-99% RC annual benchmark, cif China, \$/tonne	
Quality:	Blister copper of 98-99% copper content, with varying payables
Location:	CIF China
Unit:	USD per tonne
Publication:	Annually, January or February
Notes:	Single number and range

Refined copper

CHINA

MB-CU-0405 Copper grade A cathode premium, in-whs Shanghai, \$/tonne

Quality:	Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1
Quantity:	Min 25 tonnes
Location:	In-warehouse Shanghai port, duty-unpaid premium on top of LME cash prices
Timing:	Within 6 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized
Publication:	Daily. Between 3pm and 4pm London time

MB-CU-0383 Copper grade A cathode ER premium, bonded in-whs Shanghai, \$/tonne

Quality:	Electro-Refined Grade A cathode 99.9935% min conforming to LME specifications BS EN 1978:1998 (Cu-CATH-1).
Quantity:	Min 25 tonnes
Location:	In-warehouse Shanghai port, duty-unpaid premium on top of LME cash prices
Timing:	Within 6 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized
Publication:	Daily. Between 3pm and 4pm London time

MB-CU-0382
Copper grade A cathode SX-EW premium, bonded in-whs Shanghai, \$/tonne

Quality:	Solvent Extraction-Electro winning Grade A cathode 99.9935% min conforming to LME specifications BS EN 1978:1998 (Cu-CATH-1)
Quantity:	25 tonnes
Location:	In-warehouse Shanghai port, duty-unpaid premium on top of LME cash prices
Timing:	Within 6 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized
Publication:	Daily, 3-4pm London time

MB-CU-0403
Copper grade A cathode premium, cif Shanghai, \$/tonne

Quality:	Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu CATH-1
Quantity:	Min 25 tonnes
Location:	CIF Shanghai port, duty-unpaid premium on top of LME cash prices
Timing:	Within 6 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized
Publication:	Daily, 3-4pm London time

MB-CU-0380
Copper grade A cathode ER premium, cif Shanghai, \$/tonne

Quality:	Electro-Refined Grade A 99.9935% min conforming to LME specifications BS EN 1978:1998 (Cu-CATH-1)
Quantity:	Min 25 tonnes
Location:	CIF Shanghai port, duty-unpaid premium on top of LME cash prices
Timing:	Within 6 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized
Publication:	Daily, 3-4pm London time

MB-CU-0384 **Copper grade A cathode SX-EW premium, cif Shanghai, \$/tonne**

Quality: Solvent Extraction-Electro winning Grade A cathode 9.9935% min conforming to LME specifications BS EN 1978:1998 (Cu-CATH-1)

Quantity: Min 25 tonnes

Location: cif Shanghai port, duty-unpaid premium on top of LME cash prices

Timing: Within 6 weeks

Unit: USD/tonne

Payment terms: LC, TT or documents against payment, other terms normalized

Publication: Daily, 3-4pm London time

Assessment: Copper cathode equivalent grade, cif Shanghai

Quality: 99.9935% min copper conforming to LME specifications; Ag: 0.0025% max, As: 0.0005% max, Bi: 0.00020% max, Fe: 0.0010% max, Pb: 0.0005% max, S: 0.0015% max, Se: 0.00020% max, Te: 0.00020% max

Quantity: Min 25 tonnes

Location: cif Shanghai

Timing: Within 6 weeks

Unit: USD per tonne

Payment terms: LC, TT or DP other payments normalized to cash

Publication: Fortnightly, Tuesday 4pm London time

SOUTHEAST ASIA & EAST ASIA

MB-CU-0399 **Copper grade A cathode premium, cif Southeast Asia, \$/tonne**

Quality: Grade A 99.9935% min copper cathode conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: Min 25 tonnes

Location: cif ports of Vietnam (Ho Chi Minh/ Haiphong), Thailand (Bangkok, Laem Chabang), Malaysia (Johor, Port Klang), Indonesia (Jakarta), duty-unpaid premium on top of LME cash prices

Timing: Within 6 weeks

Unit: USD/tonne

Payment terms: Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-CU-0386 **Copper grade A cathode premium, cif Taiwan, \$/tonne**

Quality: Grade A 99.9935% min copper cathode conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: Min 25 tonnes

Location: cif delivery in Taiwanese ports, duty-unpaid premium on top of LME cash prices

Timing: Within 6 weeks

Unit: USD/tonne

Payment terms: Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-CU-0397 **Copper grade A cathode warrant premium, in-whs Southeast Asia, \$/tonne**

Quality: Grade A 99.9935% min copper cathode conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: Min 25 tonnes

Location: In any LME-approved warehouse in Singapore and in Malaysia (Johor, Port Klang), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-CU-0385 **Copper grade A cathode premium, cif Japan, \$/tonne**

Quality: Grade A 99.9935% min copper cathode conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: Min 25 tonnes

Location: cif delivery in main Japanese ports (Yokohama, Nagoya and Osaka), duty-unpaid premium on top of LME cash prices

Timing: Within 6 weeks

Unit: USD/tonne

Payment terms: Letter of credit or telegraphic transfer, other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-CU-0398 Copper grade A cathode warrant premium, in-whs East Asia \$/tonne

Quality: Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: Min 25 tonnes

Location: In any LME-approved warehouse in Taiwan (Kaohsiung) and South Korea (Gwangyang, Busan or Incheon), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-CU-0406 Copper grade A cathode premium, cif Leghorn, \$/tonne

Quality: Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: 25 tonnes

Location: cif delivery in Leghorn (Italy), duty unpaid premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

Notes: Assessed range and single number

MB-CU-0404 Copper grade A cathode premium, cif South Korea, \$/tonne

Quality: Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: Min 25 tonnes

Location: Cif delivery in main South Korean ports (Busan, Incheon, Gwangyang, Onsan), duty-unpaid premium on top of LME cash prices

Timing: Within 6 weeks

Unit: USD/tonne

Payment terms: Letter of credit or telegraphic transfer, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

Notes: Assessed range and single number

MB-CU-0372 Copper grade A cathode premium, delivered Germany, \$/tonne

Quality: Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: Min 25 tonnes

Location: Delivered consumer works in Germany, duty unpaid premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

EUROPE

MB-CU-0369 Copper grade A cathode premium, cif Rotterdam, \$/tonne

Quality: Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: Min 25 tonnes

Location: cif delivery in Rotterdam, duty unpaid premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-CU-0400 Copper grade A cathode warrant premium, in-whs North Europe, \$/tonne

Quality: Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: Min 25 tonnes

Location: In any LME-approved warehouse in North Europe (Belgium, Germany, the Netherlands, Sweden and the UK), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-CU-0401 **Copper grade A cathode warrant premium, in-whs South Europe, \$/tonne**

Quality: Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Quantity: Min 25 tonnes

Location: In any LME-approved warehouse in South Europe (Spain, Italy), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

Assessment: **Copper cathode equivalent grade, cif Europe**

Quality: 99.9935% min copper conforming to LME specifications; Ag: 0.0025% max, As: 0.0005% max, Bi: 0.00020% max, Fe: 0.0010% max, Pb: 0.0005% max, S: 0.0015% max, Se: 0.00020% max, Te: 0.00020% max

Quantity: Min 25 tonnes

Location: cif Europe

Timing: Within 4 weeks

Unit: USD per tonne

Payment terms: Cash payment, other terms normalized

Publication: Fortnightly, Tuesday 4pm London time

UNITED STATES

MB-CU-0002 **Copper grade 1 cathode premium, ddp Midwest US, US cents/lb**

Quality: Grade A 99.9935% min copper cathode conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1 or Grade 1 Electrolytic Copper Cathode ASTM B115-00

Quantity: Min 25 tonnes

Location: Delivered consumer works Midwest US

Timing: Within 4 weeks

Unit: USD/lb

Payment: 30 days, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-CU-0377 **Copper grade A cathode warrant premium, in-whs US, \$/tonne**

Location: Any LME-approved warehouse in the US, premium on top of LME cash prices

Quality: Grade A 99.9935% min copper cathode conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1

Unit: USD/tonne

Quantity: 25 tonnes

Payment terms: Cash, other payment terms normalized

Timing: Prompt release

Publication: Weekly. Tuesday 3-4pm London time

Copper rod

INDIA

MB-CU-0402 **Copper rod annual premium, cif Nhava Sheva, \$/tonne**

Quality: 8mm copper wire rod conforming to the ASTM B49-98 / BS-EN 1977-1998 standard chemical specification; copper content min 99.9%

Quantity: 100 tonnes

Location: cif Nhava Sheva (India), premium on top of LME cash prices

Timing: Within 6 weeks

Unit: USD/tonne

Payment terms: Cash against documents or letter of credit, quotation period

Publication time: Annual, after deals for long-term contracts completed between Indian buyers, global producers and traders

Lead concentrate

CHINA

MB-PB-0104	Lead spot concentrate TC, high silver, cif China, \$/tonne
Quality:	55-65% lead content concentrate, high silver 2-4kg, arsenic below 0.7%, mercury below 0.05%
Quantity:	Min 2,000 tonnes
Location:	Treatment Charge on cif basis delivery to Chinese ports
Timing:	Within 13 weeks
Unit:	USD/tonne
Payment terms:	Letter of Credit, quotation period M+3
Publication:	Monthly. Last Friday of every month

MB-PB-0103	Lead spot concentrate TC, low silver, cif China, \$/tonne
Quality:	55-65% lead content concentrate, low silver below 1kg, arsenic below 0.7%, mercury below 0.05%
Quantity:	2,000 tonnes
Location:	Treatment Charge on cif basis delivery to Chinese ports
Timing:	Within 13 weeks
Unit:	USD/tonne
Payment terms:	Letter of Credit, quotation period M+3
Publication:	Monthly. Last Friday of every month

Refined lead

INDIA

MB-PB-0087	Lead 99.97% ingot premium, cif India, \$/tonne
Quality:	Lead ingot of 99.97% to 99.99% purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)
Quantity:	Min 25 tonnes
Location:	cif delivery in Nhava Sheva (India), premium on top of LME cash prices
Timing:	Within 5 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit, telegraphic transfer or cash against documents, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-PB-0086	Lead 99.99% ingot premium, cif India, \$/tonne
Quality:	Lead ingot of 99.99% minimum purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)
Quantity:	Min 25 tonnes
Location:	cif Nhava Sheva (India), duty-unpaid premium on top of LME cash prices
Timing:	Within 5 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit, telegraphic transfer or cash against documents, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

SOUTHEAST ASIA & EAST ASIA

MB-PB-0107	Lead 99.97% ingot premium, cif Southeast Asia, \$/tonne
Quality:	Lead ingot of 99.97-99.99% purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)
Quantity:	25 tonnes
Location:	cif to ports of Vietnam (Ho Chi Minh/Haiphong), Thailand (Bangkok, Laem Chabang), Malaysia (Johor, Port Klang), Indonesia (Jakarta), duty-unpaid premium on top of LME cash prices
Timing:	Within 5 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit, telegraphic transfer or cash against documents, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-PB-0108 **Lead 99.99% ingot premium, cif Southeast Asia, \$/tonne**

Quality: Lead ingot of 99.99% min purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)

Quantity: 25 tonnes

Location: cif ports of Vietnam (Ho Chi Minh/ Haiphong), Thailand (Bangkok, Laem Chabang), Malaysia (Johor, Port Klang), Indonesia (Jakarta), duty-unpaid premium on top of LME cash prices

Timing: Within 5 weeks

Unit: USD/tonne

Payment terms: Letter of credit, telegraphic transfer or cash against documents, other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-PB-0084 **Lead 99.97% ingot premium, cif Taiwan, \$/tonne**

Quality: Lead of 99.97% to 99.99% purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)

Quantity: 25 tonnes

Location: cif delivery in main Taiwanese ports (Taipei, Kaohsiung or Keelung), duty-unpaid premium on top of LME cash prices

Timing: Within 5 weeks

Unit: USD/tonne

Payment terms: Letter of credit, telegraphic transfer or cash against documents, other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-PB-0083 **Lead 99.99% ingot premium, cif Taiwan, \$/tonne**

Quality: Lead ingot of 99.99% minimum purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)

Quantity: 25 tonnes

Location: cif main Taiwanese ports (Taipei, Kaohsiung or Keelung), duty-unpaid premium on top of LME cash prices

Timing: Within 5 weeks

Unit: USD/tonne

Payment terms: Letter of credit, telegraphic transfer or cash against documents, other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-PB-0105 **Lead min 99.97% ingot warrant premium, in-whs Southeast Asia \$/tonne**

Quality: Lead ingot of 99.97% to 99.99% purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)

Quantity: 25 tonnes

Location: In any LME-approved warehouse in Singapore and in Malaysia (Johor, Port Klang), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-PB-0106 **Lead min 99.97% ingot warrant premium, in-whs East Asia \$/tonne**

Quality: Lead ingot of 99.97% to 99.99% purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)

Quantity: 25 tonnes

Location: In any LME-approved warehouse in Taiwan (Kaohsiung) and South Korea (Gwangyang, Busan or Incheon), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

EUROPE

MB-PB-0109 **Lead 99.97% ingot warrant premium, in-whs North Europe, \$/tonne**

Location: In any LME-approved warehouse in North Europe (Belgium, Germany, the Netherlands, Sweden and the UK), premium on top of LME cash prices

Quality: Lead of 99.97% to 99.99% purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)

Unit: USD/tonne

Quantity: Min 25 tonnes

Payment terms: Cash, other payment terms normalized

Timing: Prompt release

Form: Cathode

Publication: Weekly. Tuesday 3-4pm London time

MB-PB-0110 **Lead 99.97% ingot warrant premium, in-whs South Europe, \$/tonne**

Quality: Lead cathode of 99.97% to 99.99% purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)

Quantity: Min 25 tonnes

Location: In any LME-approved warehouse in South Europe (Spain, Italy), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

UNITED STATES

MB-PB-0056 **Lead 99.97% ingot premium ddp Midwest US, US cents/lb**

Quality: Lead ingot of 99.97% to 99.99% purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)

Quantity: Min 25 tonnes

Location: Delivered consumer works, US Midwest

Timing: Within 5 weeks

Unit: US cents/lb

Payment terms: 30 days, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-PB-0099 **Lead 99.99% ingot premium, delivered Midwest US, US cents/lb**

Quality: Lead ingot of 99.99% minimum purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)

Quantity: Min 25 tonnes

Location: Delivered consumer works, US Midwest

Timing: Within 5 weeks

Unit: US cents /lb

Payment terms: 30 days, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-PB-0097 **Lead 99.97% ingot warrant premium, in-whs US, \$/tonne**

Quality: Lead cathode of 99.97% to 99.99% purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009)

Quantity: Min 25 tonnes

Location: In any LME-approved warehouse in the USA, premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

Nickel ore

Please see **Ores** section.

Nickel

CHINA

MB-NI-0143	Nickel min 99.8% full plate premium, in-whs Shanghai, \$/tonne
Quality:	Full plate. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade
Quantity:	Min 10 tonnes (under consultation to increase to 60 tonnes)
Location:	In-warehouse iShanghai bonded zone, premium on top of LME cash prices
Timing:	With 2 weeks
Unit:	USD/tonne
Payment terms:	Cash against document, Letter of credit, telegraphic transfer, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time
Notes:	Assessed range and single number

MB-NI-0142	Nickel min 99.8% full plate premium, cif Shanghai, \$/tonne
Type:	Assessed range and single number
Quality:	Full plate. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade
Quantity:	Min 10 tonnes (under consultation to increase to 60 tonnes)
Location:	cif delivery basis Shanghai port, premium on top of LME cash prices
Timing:	With 6 weeks
Unit:	USD/tonne
Payment terms:	Cash against document, Letter of credit, telegraphic transfer, and other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-NI-0245	Shanghai, Nickel premium, 99.80% purity, briquette, duty free, cif, \$ per tonne
Quality:	Nickel content 99.8% in line with LME specifications
Quantity:	Min 6 tonnes
Location:	fob China
Timing:	Within 8 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit and telegraphic transfer
Publication:	Last Tuesday of each month
Notes:	Origin = Australia and Madagascar

SOUTHEAST ASIA & EAST ASIA

MB-NI-0137	Nickel min 99.8% full plate warrant premium, in-whs Southeast Asia, \$/tonne
Quality:	Full-plate cathode. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade
Quantity:	6 tonnes
Location:	Any LME-approved warehouse in Singapore and Malaysia (Johor, Port Klang), premium on top of LME cash prices
Timing:	Prompt release
Unit:	USD/tonne
Payment terms:	Cash, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-NI-0138	Nickel min 99.8% briquette warrant premium, in-whs Southeast Asia, \$/tonne
Quality:	Briquette. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade
Quantity:	6 tonnes
Location:	Any LME-approved warehouse in Singapore/Malaysia (Johor, Port Klang), premium on top of LME cash prices
Timing:	Prompt release
Unit:	USD/tonne
Payment terms:	Cash, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-NI-0139 **Nickel min 99.8% full plate warrant premium, in-whs East Asia, \$/tonne**

Quality: Full-plate cathode. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade

Quantity: 6 tonnes

Location: In any LME-approved warehouse in Taiwan (Kaohsiung) and South Korea (Gwangyang, Busan or Incheon), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-NI-0140 **Nickel min 99.8% briquette warrant premium, in-whs East Asia, \$/tonne**

Quality: Briquette. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade

Quantity: 6 tonnes

Location: In any LME-approved warehouse in Taiwan (Kaohsiung) and South Korea (Gwangyang, Busan or Incheon), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

EUROPE

MB-NI-0003 **Nickel uncut cathode premium, in-whs Rotterdam, \$/tonne**

Quality: Full-plate cathode. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade

Quantity: 20 tonnes

Location: In-warehouse Rotterdam, premium on top of LME cash prices

Timing: Within one week

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-NI-0001 **Nickel 4x4 cathode premium, in-whs Rotterdam, \$/tonne**

Quality: 4x4 cut cathode. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade

Quantity: Min 20 tonnes

Location: In-warehouse Rotterdam, premium on top of LME cash prices

Timing: Within one week

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-NI-0002 **Nickel briquette premium, in-whs Rotterdam, \$/tonne**

Quality: Briquette. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade

Quantity: 20 tonnes

Location: In-warehouse Rotterdam, premium on top of LME cash prices

Timing: Within one week

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-NI-0141 **Nickel min 99.8% warrant premium, in-whs North Europe, \$/tonne**

Quality: Cathode (full-plate, cut), pellet or briquette. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade

Quantity: Min 6 tonnes

Location: Any LME-approved warehouse in North Europe (Belgium, Germany, the Netherlands, Sweden and the UK), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

UNITED STATES

MB-NI-0240 Nickel 4x4 cathode premium, delivered Midwest US, US cents/lb

Quality:	4x4 cut cathode. 99.8% minimum primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade
Quantity:	Min 20 tonnes
Location:	Delivered consumer works US
Timing:	Within four weeks
Unit:	US cents per lb
Payment terms:	30 days, other payment terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-NI-0241 Nickel briquette premium, delivered Midwest US, US cents/lb

Quality:	Briquette. 99.8% minimum primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade
Quantity:	Min 20 tonnes
Location:	Delivered consumer works US
Timing:	Within four weeks
Unit:	US cents per lb
Payment terms:	30 days, other payment terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

Tin

CHINA

MB-SN-0032 Tin 99.9% ingot premium, cif Shanghai, \$/tonne

Quality:	Ingot. 99.9% tin purity conforming to LME specification: BS EN 610:1996 with 100-300 ppm lead content
Quantity:	Min 5 tonnes
Location:	cif delivery basis Shanghai port, premium on top of LME cash prices
Timing:	Within 2 weeks
Unit:	USD/tonne
Payment terms:	Cash against document, telegraphic transfer, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-SN-0031 Tin 99.9% low lead ingot premium, cif Shanghai, \$/tonne

Quality:	Ingot. 99.9% tin purity conforming to LME specification: BS EN 610:1996 with less than 100 ppm lead content
Quantity:	Min 5 tonnes
Location:	cif delivery basis Shanghai port, premium on top of LME cash prices
Timing:	Within 2 weeks
Unit:	USD/tonne
Payment terms:	Cash against document, telegraphic transfer, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

SOUTHEAST ASIA & EAST ASIA

MB-SN-0038 Tin 99.9% ingot premium, cif Taiwan, \$/tonne

Quality:	Ingot. 99.9% tin purity conforming to LME specification: BS EN 610:1996 with 100-300 ppm lead content
Quantity:	Min 5 tonnes
Location:	cif delivery basis Taiwanese ports (Taipei, Kaohsiung or Keelung), premium on top of LME cash prices
Timing:	Within 2 weeks
Unit:	USD/tonne
Payment terms:	Cash against document, telegraphic transfer, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-SN-0042 Tin min 99.85% ingot warrant premium, in-whs Southeast Asia, \$/tonne

Quality: Ingot. Minimum 99.85% tin purity conforming to LME specification: BS EN 610:1996, max 500ppm lead

Quantity: Min 5 tonnes

Location: In any LME-approved warehouse in Singapore and in Malaysia (Johor, Port Klang), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

EUROPE

MB-SN-0002 Tin 99.9% ingot premium, in-whs Rotterdam, \$ per tonne

Quality: Ingot. 99.9% tin purity conforming to LME specification: BS EN 610:1996 with 100-300 ppm lead content

Quantity: Min 20 tonnes

Location: In-warehouse Rotterdam, premium on top of LME cash prices

Timing: Within 2 weeks

Unit: USD/tonne

Payment terms: Cash against conditional release, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-SN-0029 Tin 99.9% low lead ingot premium, in-whs Rotterdam, \$/tonne

Quality: Ingot. 99.9% tin purity conforming to LME specification: BS EN 610:1996 with less than 100 ppm lead content

Quantity: Min 20 tonnes

Location: In-warehouse Rotterdam, premium on top of LME cash prices

Timing: Within 2 weeks

Unit: USD/tonne

Payment terms: Cash against conditional release, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

UNITED STATES

MB-SN-0012 Tin grade A min 99.85% ingot all-in price, ddp Midwest US, \$/tonne

Quality: Ingot. Min 99.85% tin purity conforming to LME specification BS EN 610:1996 and ASTM grade A, max 500ppm lead

Quantity: Min 20 tonnes

Location: Delivered consumer works US

Timing: Within 2 weeks

Unit: USD/tonne

Payment terms: 30 days, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-SN-0036 Tin 99.85% ingot premium, in-whs Baltimore, \$/tonne

Quality: Ingot. Min 99.85% tin purity conforming to LME specification: BS EN 610:1996, max 500ppm lead, total impurities must not exceed 0.15%

Quantity: Min 20 tonnes

Location: In-warehouse Baltimore, premium on top of LME cash prices

Unit: USD/tonne

Payment terms: Cash against documents, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London

Zinc concentrate

CHINA

MB-ZN-0110 Zinc spot concentrate TC, cif China, \$/per tonne

Quality: 45-55% zinc content, low silver (0-170g/t), silica 3.5-4.5%, copper below 3% (high copper 4-5%), lead below 3.5% (total copper, lead, silica at max 6-7%), arsenic below 0.6%, cadmium below 0.33% and mercury below 0.06%

Quantity: Min 2,000 tonnes

Location: cif Chinese ports

Timing: Within 13 weeks

Unit: USD/tonne

Payment terms: Letter of Credit, quotation period M+3

Publication: Monthly. Last Friday of every month.

MB-ZN-0120 **Zinc concentrate TC spot, delivered North China, yuan/tonne**

Quality: Concentrate. Zn 50%, As <0.4%, Hg <100ppm, Si <6%, S >26%, Pb <3%, Fe <8%.

Quantity: Min 100 tonnes

Location: Treatment Charge on delivered basis

Unit: CNY/tonne

Payment terms: Cash against document or prepayment

Publication: Monthly. Last Friday of every month.

MB-ZN-0121 **Zinc concentrate TC spot, delivered South China, yuan/tonne**

Quality: Concentrate. Zn content 50%, As <0.4%, Hg <100ppm, Si <6%, S >26%, Pb <3%, Fe <8%.

Quantity: Min 100 tonnes

Location: Treatment Charge on delivered basis

Unit: CNY/tonne

Payment terms: Cash against document or prepayments

Publication: Monthly. Last Friday of every month.

MB-ZN-0106 **Zinc SHG min 99.995% ingot premium, cif Shanghai, \$/per tonne**

Quality: Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008

Quantity: Min 25 tonnes

Location: cif Shanghai port, premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-ZN-0116 **Zinc SHG 99.995% ingot premium, cif Taiwan \$/tonne**

Quality: Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008

Quantity: Min 25 tonnes

Location: cif Taiwanese ports, premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

Refined zinc

CHINA

MB-ZN-0119 **Zinc min 99.995% ingot premium, in-whs Shanghai, \$/tonne**

Quality: Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008

Quantity: Min 25 tonnes

Location: In-warehouse Shanghai bonded zone, premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

Notes: Assessed range and assessed single number

SOUTHEAST ASIA & EAST ASIA

MB-ZN-0113 Zinc SHG 99.995% ingot premium, fca Singapore, \$/per tonne

Quality:	Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008
Quantity:	Min 25 tonnes
Location:	fca Singapore, premium on top of LME cash price
Timing:	Within 4 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit or telegraphic transfer, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-ZN-0115 Zinc SHG 99.995% ingot premium, fca Malaysia, \$/per tonne

Quality:	Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008
Quantity:	Min 25 tonnes
Location:	fca main Malaysian ports (Johor, Port Klang), premium on top of LME cash price
Timing:	Within 4 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit or telegraphic transfer, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-ZN-0093
Zinc SHG min 99.995% ingot premium, cif Southeast Asia, \$/tonne

Quality:	Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008
Quantity:	Min 25 tonnes
Location:	cif ports in Vietnam (Ho Chi Minh/ Haiphong), Thailand (Bangkok, Laem Chabang), Malaysia (Johor, Port Klang), Indonesia (Jakarta), duty-unpaid premium on top of LME cash prices
Timing:	Within 4 weeks
Unit:	USD/tonne
Payment terms:	Letter of credit or telegraphic transfer, other terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

EUROPE

MB-ZN-0001 Zinc SHG min 99.995% ingot premium, dp fca Rotterdam, \$/tonne

Quality:	Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008
Quantity:	Min 25 tonnes
Location:	Free-carrier basis delivery in Rotterdam, duty-paid premium on top of LME cash prices
Timing:	Within 4 weeks
Unit:	USD/tonne
Payment terms:	Cash, other payment terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

MB-ZN-0099 **Zinc SHG min 99.995% ingot premium, dp fca Antwerp, \$/tonne**

Quality: Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008

Quantity: Min 25 tonnes

Location: Free-carrier basis delivery in Antwerp, duty-unpaid premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-ZN-0103 **Zinc SHG min 99.995% ingot premium, fca dp Italy, \$/tonne**

Quality: Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008

Quantity: Min 100 tonnes

Location: Free-carrier basis delivery in Italy, duty-paid premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-ZN-0102 **Zinc SHG min 99.995% ingot premium, ddp Italy, \$/per tonne**

Quality: Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008

Quantity: Min 100 tonnes

Location: Delivered duty paid consumer works in Italy, premium on top of LME cash prices

Timing: Within 4 weeks

Unit: USD/tonne

Payment terms: Cash, other terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-ZN-0117 **Zinc SHG min 99.995% warrant premium, in-whs North Europe, \$/tonne**

Quality: Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008

Quantity: Min 100 tonnes

Location: In any LME-approved warehouse in North European locations (Belgium, Germany, the Netherlands, Sweden and the UK), premium on top of LME cash prices

Timing: Prompt release

Unit: USD/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 3-4pm London time

MB-ZN-0082	Zinc SHG min 99.995% ingot premium monthly average, delivered UK, £/tonne
Quality:	Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008
Quantity:	Min 25 tonnes
Location:	Delivered customer works basis in the UK; all-in price including average of LME GBP cash settlements for the last ten days of the previous month and assessed term premiums for UK delivery (either delivered customer works or FCA Rotterdam plus transport, warehousing, delivery and financing costs)
Unit:	GBP/tonne
Payment terms:	Cash, other payment terms normalized
Publication:	Monthly. 1st working day of the month between 1pm and 2pm London time
Notes:	This partly-assessed single number was launched in 2013 as a replacement to the Thyssenkrupp Metallurgie UK SHG zinc price, which had been discontinued.

MB-ZN-0104	Zinc SHG min 99.995% warrant premium, in-whs US, \$/per tonne
Quality:	Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470-2008
Quantity:	25 tonnes
Location:	In any LME-approved warehouse in the US, premium on top of LME cash prices
Timing:	Prompt release
Unit:	USD/tonne
Payment terms:	Cash, other payment terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

UNITED STATES

MB-ZN-0061	Zinc SHG min 99.995% ingot all-in price, ddp Midwest US, US cents/lb
Quality:	Min 99.995% special high grade zinc ingot, conforming to LME specifications and relevant BS EN standards
Quantity:	Min 25 tonnes
Location:	Delivered consumer works Midwest US
Timing:	Within 4 weeks
Unit:	USD/tonne
Payment terms:	30 days, other payment terms normalized
Publication:	Weekly. Tuesday 3-4pm London time

Bulk alloys

Ferro-chrome

CHINA
MB-FEC-0011 **Ferro-chrome 50% Cr import, cif main Chinese ports, \$/lb contained Cr**

Quality: 10-100mm lump. Chrome base 50%, range 48-52%; carbon base 7%, max 9%; silicon base 3%, max 6%; phosphorous max 0.03%; sulphur max 0.06%.

Quantity: Min 1,000 tonnes

Location: cif main Chinese ports

Timing: Within 6 weeks

Unit: USD per lb

Payment terms: LC at sight

Publication: Weekly. Friday 3pm London time

Notes: Seaborne, all origins.

Data history from May 2012

MB-FEC-0005 **Ferro-chrome contract 6-8% C, basis 50% Cr, ddp China, yuan/tonne**

Quality: Lump. Cr 50% min; C 6-8%; Si: 5% max; P 0.04% max; S 0.04% max

Quantity: Min 1,000 tonnes

Location: ddp China

Unit: CNY/tonne, normalized to Cr 50%

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Friday between 2pm and 3pm London time

MB-FEC-0006 **Ferro-chrome spot 6-8% C, basis 50% Cr, ddp China, yuan/tonne**

Quality: Lump. Cr 50% min, C 6-8%, Si 5% max, P 0.04% max, S 0.04% max

Quantity: Min 1,000 tonnes

Location: ddp China

Unit: CNY/tonne, normalized to Cr 50%

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Friday between 2pm and 3pm London time

JAPAN
MB-FEC-0017 **Ferro-chrome high carbon 57-65% Cr, cif dup Japan, \$/lb**

Quality: 10-50mm lump. Cr 57% min, 65% max; C 6% min, 9% max; Si 2% min, 4% max; P 0.04% max; S 0.05% max

Quantity: Min 100 tonnes

Location: cif Japan

Unit: USD per lb of chrome contained

Payment terms: LC at sight and TT

Publication: Weekly. Thursday 2-3pm London time

SOUTHEAST ASIA & EAST ASIA
MB-FEC-0018 **Ferro-chrome high carbon 57-65% Cr, cif dup South Korea, \$/lb**

Quality: 10-50mm lump. Cr 57% min, 65% max; C 6% min, 9% max; Si 2% min, 4% max; P 0.04% max; S 0.05% max

Quantity: Min 100 tonnes

Location: cif South Korea

Unit: USD per lb of chrome contained

Payment terms: LC at sight and TT

Publication: Weekly. Thursday between 2pm and 3pm London time

EUROPE
MB-FEC-0004 **Ferro-chrome high carbon 6-8.5% C, basis 60-70% Cr, max 1.5% Si, delivered Europe, \$/lb Cr**

Quality: Lump. Cr 60-70%, C 6-8.5%, Si 1.5%. High-carbon ferro-chrome of the following brands and origins: Kazakhstan (Kazchrome); Russia (Tikhvin, Chelyabinsk); Turkey (Eti Krom); Sweden (Vargon Alloys); Albania (Albchrome)

Quantity: Min 24 tonnes

Location: Delivered consumer works Europe

Unit: USD per lb of chrome contained

Payment terms: 30 days, other payment terms normalized

Publication: Weekly. Friday between 2pm and 3pm London time

MB-FEC-0002	Ferro-chrome low carbon, 65% Cr, max 0.06% C, delivered Europe, \$/lb Cr	MB-FEC-0016	Ferro-chrome lumpy Cr charge quarterly, basis 52% Cr (and high carbon), delivered Europe, \$/lb Cr
Quality:	Lump. Cr 65% basis (range 60-70% Cr), C 0.06% max, Si 1.5% max, P 0.05% max, S 0.05% max	Quality:	Lump. Basis 52% Cr, high carbon
Quantity:	Min 25 tonnes	Quantity:	Min not specified
Location:	Delivered consumer works Europe	Location:	Delivered consumer works Europe
Unit:	USD per lb of chrome contained	Unit:	US cents per lb of chrome contained
Payment terms:	30 days, other payment terms normalized	Payment terms:	Not specified
Publication:	Fortnightly. Friday between 2pm and 3pm London time	Publication:	Quarterly as per industry announcement to Johannesburg Stock Exchange
		Notes:	Fastmarkets does not independently assess this price, but publishes it as a reference. The price is settled every quarter by leading ferro-chrome producers and consumers and is then announced by a leading producer to the Johannesburg Stock Exchange. Fastmarkets obtains the benchmark number from market participants and/or from the official announcement.
MB-FEC-0003	Ferro-chrome 0.10% C, average 65-70% Cr, delivered Europe, \$/lb Cr		
Quality:	Lump. Cr 65% basis (range 65-70% Cr), C 0.10% excluding material up to 0.06% C, Si 1.5% max, P 0.05% max, S 0.05% max		
Quantity:	Min 25 tonnes		
Location:	Delivered consumer works Europe		
Unit:	USD per lb of chrome contained		
Payment terms:	30 days, other payment terms normalized		
Publication:	Fortnightly. Friday 2-3pm London time		
		MB-FEC-0019	Ferro-chrome lumpy Cr benchmark indicator, charge basis 52% (and high carbon), Europe, \$/lb
		Quality:	Ferro-chrome lumpy, basis 52% chrome content
		Unit:	US cents per lb of chrome content to major European destinations
		Publication:	Weekly. Friday 3pm London time
		Notes:	The price indicates a representative level for the European ferro-chrome benchmark if it were to be settled on that Friday. It does so by using a proprietary Fastmarkets formula based on the historical relationship between the European ferro-chrome benchmark and Fastmarkets market data.
MB-FEC-0001	Ferro-chrome low phosphorous, min 65% Cr, max 0.015% P, delivered Europe, \$/lb		
Quality:	Lump. Cr 65% min, Si 1% max, C 6-8%, P 0.015% max, Ti 0.05%		
Quantity:	Min 25 tonnes		
Location:	Delivered consumer works Europe		
Unit:	USD per lb of chrome contained		
Payment terms:	30 days, other payment terms normalized		
Publication:	Fortnightly. Friday 2-3pm London time		

UNITED STATES

MB-FEC-0007 **Ferro-chrome high carbon 6-8% C, basis 60-65% Cr, max 2% Si, in-whs Pittsburgh, US cents/lb**

Quality: Cr min: 62.00%, si: max. 3.00%, C: 6.00- 8.00%

Quantity: Min 20 tons

Location: fob Pittsburgh

Unit: US cents per pound

Publication: Weekly. Thursday

MB-FEC-0013 **Ferro-chrome low carbon 0.05%C, 65% Cr min, in-whs Pittsburgh, \$/lb**

Quality: Cr min: 65.00%, Ca: 0.05%, Si: max 1.00%

Quantity: 20 tons

Location: In-whs Pittsburgh

Unit: US cents per pound

Publication: Weekly. Thursday

MB-FEC-0014 **Ferro-chrome low carbon 0.10%C, 62% Cr min, in-whs Pittsburgh, \$/lb**

Type: Assessed range

Currency: US cents per pound

Location: In-whs Pittsburgh

Quality: Cr min 62.00%, C: 0.10%, Si max: 1.00%

Minimum lot size: 20 tons

Publication: Weekly. Thursday

MB-FEC-0015 **Ferro-chrome low carbon 0.15%C, 60% Cr min, in-whs Pittsburgh, \$/lb**

Type: Assessed range

Currency: US cents per pound

Location: In-whs Pittsburgh

Quality: Cr: min. 60.00%, C: 0.15%, Si: max. 1.00%

Minimum lot size: 20 tons

Publication: Weekly. Thursday

Ferro-manganese
EUROPE

MB-FEW-0001 **Ferro-manganese basis 78% Mn max, standard 7.5% C, delivered Europe, €/tonne**

Quality: Lump in the range of 10-100mm, 90% min. Mn 75% min, 78% max; Si 2% max; C 6% min 8% max; P 0.35% max; S 0.04% max

Quantity: Min 100 tonnes

Location: Delivered consumer works Europe

Unit: EUR/tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Friday between 2pm and 3pm London time

CHINA

MB-FEW-0002 **Ferro-manganese 65% Mn min, max 7% C, in-whs China, yuan/tonne**

Quality: Lump. Mn 65-72%, Si 4.5% max, C 7.0% max, P 0.4% max, S 0.03% max

Quantity: Min 100 tonnes

Location: In-whs China

Unit: CNY/tonne, all Mn grades normalized to 65% on pro rata basis

Payment terms: Cash, other payment terms normalized

Publication: Weekly, Friday 2-3pm London time

UNITED STATES

MB-FEM-0001 **Ferro-manganese high carbon 78% Mn, standard 7.5% C, in-whs Pittsburgh, \$/long ton**

Quality: Mn 78%, C 7.5%

Quantity: Min 20 tons

Unit: US dollars per long ton

Location: In-warehouse Pittsburgh

Frequency: Weekly, Thursday

MB-FEM-0003 **Ferro-manganese medium carbon 80% Mn, max 1.50% C, in-whs Pittsburgh, US cents/lb**

Quality: Manganese min 80%, carbon max 1.50%
 Quantity: Min 20 tons
 Unit: US cents per pound
 Location: In-whs Pittsburgh
 Frequency: Weekly, Thursday

Ferro-silicon

CHINA

MB-FES-0001 **Ferro-silicon 75% Si min, in-whs China, yuan/tonne**

Quality: Lump. Si 75-80%, Mn 0.4% max, Al: 2% max, Cr 0.3% max, P 0.035% max, S 0.02% max, C 0.1% max
 Quantity: 100 tonnes
 Location: In-whs China
 Unit: CNY/tonne, price for all Si grades normalized to 75% on pro rata basis
 Payment terms: Cash, other payment terms normalized
 Publication: Weekly. Friday between 2pm and 3pm London time

MB-FEH-0001 **Ferro-silicon 75% Si min export, fob China, \$/tonne**

Quality: Lump. Si 75-80%, Mn 0.4% max, Al: 2% max, Cr 0.3% max, P 0.035% max, S 0.02% max, C 0.1% max
 Quantity: 100 tonnes
 Location: fob China main ports
 Unit: USD/tonne, normalized to 75% Si on pro rata basis
 Payment terms: Cash, other payment terms normalized
 Publication: Weekly. Friday between 2pm and 3pm London time

EUROPE

MB-FEH-0002 **Ferro-silicon lumpy basis 75% Si (scale pro rata), delivered Europe, €/tonne**

Quality: Lump. Si 75% basis (scale pro rata), Al 1.5% max, C 0.10-0.15% max, Ca 0.6% max, Ti 0.15% max, P 0.02% max, S 0.025% max
 Quantity: Min 100 tonnes
 Location: Delivered consumer works Europe
 Unit: EUR/tonne
 Payment terms: Cash, other payment terms normalized
 Publication: Weekly. Friday between 2pm and 3pm London time

UNITED STATES

MB-FES-0002 **Ferro-silicon 75% Si, in-whs Pittsburgh, US cents/lb**

Quality: Silicon 75.00%
 Quantity: Min 20 tons
 Location: In-warehouse Pittsburgh
 Unit: US cents per pound
 Publication: Weekly. Thursday

Silico-manganese

EUROPE

MB-SIM-0002 **Silico-manganese lumpy 65-75% Mn, basis 15-19% Si (scale pro rata), major European destinations €/tonne**

Quality: Lump. Mn 65-75% (Scale pro rata), Si 15-19%, C 2-2.5%, P 0.3%, S 0.03%
 Quantity: Min 100 tonnes
 Location: Delivered consumer works Europe
 Unit: EUR/tonne
 Payment terms: Cash, other payment terms normalized
 Publication: Weekly. Friday between 2pm and 3pm London time

CHINA

MB-SIM-0001	Silico-manganese 65% Mn min, max 17% Si, in-whs China, yuan/tonne
Quality:	Lump. Mn 65-72%, Si 17%, C 1.8% max, P 0.25% max, S 0.04% max
Quantity:	Min 100 tonnes
Location:	ddp China
Unit:	CNY/tonne, all Mn grades normalized to 65% basis on pro rata basis
Payment terms:	Cash, other terms normalized
Publication:	Weekly. Friday between 2pm and 3pm London time

INDIA

MB-SIM-0004	Silico-manganese 65% Mn min, min 16% Si, fob India, \$/tonne
Quality:	Lump. Mn: 65% Si: 16% C: 2% P:0.35% S:0.03%
Quantity:	Min 100 tonnes
Location:	fob India
Unit:	USD/tonne
Payment terms:	Letter of Credit
Publication:	Weekly. Friday between 2pm and 3pm London time

UNITED STATES

MB-SIM-0003	Silico-manganese 65% Mn min, min 16% Si, in-whs Pittsburgh, US cents/lb
Quality:	Manganese min 65%, Si min 16%
Quantity:	20 tons
Location:	In-warehouse Pittsburgh
Unit:	US cents per pound
Publication:	Weekly. Thursday

Ferro-nickel

CHINA

MB-FEN-0003	Ferro-nickel premium/discount, 26-32% Ni contained, cif China, \$/tonne
Quality:	Ni typical 30% (range 26%-32%), P 0.0045% max, S 0.060% max
Quantity:	Min 100 nickel metal tonnes per lot
Location:	cif China
Unit:	USD/tonne
Payment terms:	Cash, other payment terms normalized
Publication:	Last Monday of each month between 2pm to 3pm London time
Notes:	Ferro-nickel price = (LME Ni price + premium/ discount) x nickel content

Nickel Pig Iron

CHINA

MB-FEN-0001	Nickel pig iron, high-grade NPI content 10-15%, contract, ddp China, yuan/nickel unit price
Quality:	Lump. Ni10-15%, Fe 80%, P 0.04% max, S 0.03% max, Si 4.5% max, C 4% max
Quantity:	Min 1,000 tonnes
Location:	Delivered duty paid China
Unit:	CNY/tonne
Payment terms:	Cash
Publication:	Weekly. Tuesday between 2pm and 3pm UK time
Notes:	Packaged in 1-tonne big bags
MB-FEN-0002	Nickel pig iron, high-grade NPI content 10-15%, spot, ddp China, yuan/nickel unit price
Quality:	Lump. Ni10-15%, Fe 80%, P 0.04% max, S 0.03% max, Si 4.5% max, C 4% max
Quantity:	Min 500 tonnes
Location:	ddp China
Unit:	CNY/tonne
Payment terms:	Cash
Publication:	Weekly. Tuesday between 2pm and 3pm UK time
Notes:	Packaged in 1-tonne big bags

Noble alloys

Molybdenum

EUROPE

MB-FEO-0003 Molybdenum drummed molybdic oxide 57% Mo min, in-whs Rotterdam, \$/lb Mo

Quality: Sandy powder (0-4mm). Mo 57% min, Cu 0.5% max, S 0.1% max, P 0.05% max, Pb 0.05% max, C 0.1% max. All other elements should each be 0.10% max, with the exception of Si, which should be 6% max.

Quantity: Min 10 tonnes (+/- 2%)

Location: In-whs Rotterdam

Unit: USD per lb Mo

Payment terms: Cash; other terms normalized

Publication: Twice weekly. Wednesday and Friday between 2pm and 3pm London time

MB-FEO-0001 Ferro-molybdenum 65% Mo min, in-whs Rotterdam, \$/kg Mo

Quality: Lump 5-50mm, 90% min, Mo 65% min, Si 1.50% max, Cu 0.50% max, C 0.10% max, S 0.10% max, P 0.05% max. All other elements should be each 0.10% max, with the exception of Fe

Quantity: Min 10 tonnes (+/- 2%)

Location: In-whs Rotterdam

Unit: USD per kg Mo

Payment terms: Cash; other payment terms normalized

Publication: Twice weekly. Wednesday and Friday 2-3pm London time

UNITED STATES

MB-MO-0001 Molybdenum canned molybdic oxide, in-whs Pittsburgh, \$/lb

Quality: Mo min 57.00%, copper max 0.50%, phosphorus 0.05%, lead 0.05%, sulphur 0.10%, carbon 0.10%, moisture 0.10%

Quantity: Min 10 tons

Location: In-whs US

Unit: USD per pound

Publication: Weekly. Thursday

MB-FEO-0002 Ferro-molybdenum 65-70% Mo, in-whs Pittsburgh, \$/lb

Quality: Mo 65-70%

Quantity: Min 10 tons

Location: In-whs Pittsburgh

Unit: USD per pound

Publication: Weekly. Thursday

Titanium

EUROPE

MB-FET-0001 Ferro-titanium 70% Ti, max 4.5% Al, ddp Europe, \$/kg Ti

Quality: Lump. Ti 70%, Al 4.5%, V 3%, O2 2%, C 0.2%, S 0.05%, P 0.05%, Si 0.5%, N 0.5%, Sn 0.5%, Ni 0.05%, Cr 0.5%, Pb 0.01%, Bi 0.01%

Quantity: Min 10-tonne lots (+/- 2%)

Location: ddp Europe

Unit: USD per kg Ti

Payment terms: Cash (other payment terms normalized)

Publication: Weekly. Wednesday 2-3pm London

Tungsten

EUROPE

MB-W-0001 Tungsten APT 88.5% WO3 min Europe, cif Rotterdam duty-free, \$/mtu WO3

Quality: White finely divided free-flowing crystals. WO3 88.5% min, Al 0.001% max, As 0.0005% max, Bi 0.0005% max, Ca 0.001% max, Cd 0.0005% max, Co 0.0005% max, Cr 0.0005% max, Cu 0.0005% max, Fe 0.001% max, K 0.001% max, Mn 0.001% max, Mg 0.001% max, Mo 0.002% max, Na 0.001% max, Ni 0.0005% max, P 0.001% max, Pb 0.0005% max, S:0.001% max, Sb 0.0005% max, Si 0.001% max, Sn 0.0005% max, Ti 0.0005% max, V 0.0005% max

Quantity: Min 20 tonnes (+/- 2%)

Location: cif Rotterdam, duty free

Unit: USD per mtu WO3

Payment terms: Cash. Delivered up to three months in advance considered spot business

Publication: Weekly. Friday 2-3pm London

CHINA

MB-W-0003 Tungsten APT 88.5% WO3 min, fob main ports China, \$/mtu WO3

Quality:	White finely divided free-flowing crystals. WO3 88.5% min, Al 0.0005% max, As 0.001% max, Bi 0.0001% max, Ca 0.001% max, Cd 0.001% max, Co 0.005% max, Cr 0.001% max, Cu 0.0005% max, Fe 0.001% max, K 0.001% max, Mn 0.0005% max, Mg 0.0005% max, Mo 0.002% max, Na 0.001% max, Ni 0.0005% max, P 0.0007% max, Pb 0.0001% max, S 0.0008% max, Sb 0.0002% max, Si 0.001% max, Sn 0.0002% max, Ti 0.0005% max, V 0.001% max
Quantity:	Min 17 tonnes
Location:	Fob China main ports
Unit:	USD per mtu WO3
Payment terms:	Cash or 30 days
Publication:	Weekly. Wednesday 2-3pm London

MB-W-0002 Tungsten concentrate 65% WO3, in-whs China, yuan/tonne

Quality:	Powder. WO3 65% min, 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
Quantity:	Min 50 tonnes
Location:	China
Unit:	CNY/tonne
Payment terms:	Cash or 30 days
Publication:	Weekly. Wednesday 2-3pm London time

Ferro-tungsten

EUROPE
MB-FEU-0001 Ferro-tungsten basis 75% W, in-whs dup Rotterdam, \$/kg W

Quality:	Lump. W 75.00% min, C 0.40% max, S 0.08% max, Mn 0.50% max, As 0.10% max, Sn 0.08% max, P 0.05% max, Si 0.70% max, Cu 0.15% max, Sb 0.05% max
Quantity:	Min 3-tonne lots
Location:	dup Rotterdam
Unit:	USD per kg W
Payment terms:	Cash, other payment terms normalized
Publication:	Twice weekly. Wednesday and Friday 2-3pm London

Vanadium

EUROPE
MB-FEV-0001 Ferro-vanadium basis 78% V min, 1st grade, ddp Western Europe, \$/kg V

Quality:	Lump. V 78%, Al 1.5%, Si 1.5%, C 0.25%, S 0.05%, P 0.06%, Mn 0.5%. Other elements trace only, with the exception of Fe
Quantity:	Min 5 tonnes
Location:	Delivered consumer works Europe
Unit:	USD per kg V
Payment terms:	Cash, other terms normalized
Publication:	Twice weekly. Wednesday and Friday at 2-3pm London time

MB-V-0001 Vanadium pentoxide 98% V2O5 min, in-whs Rotterdam, \$/lb V2O5

Quality:	Brown flake. V 98% min, Si 0.25% max, Fe 0.30% max, S 0.03% max, P 0.05% max, As 0.02% max, Na2+K2O 1.50% max
Quantity:	Min 5 tonnes (+/- 5%)
Location:	In-warehouse Rotterdam
Unit:	USD per lb V2O5
Payment terms:	Cash, other terms normalized
Publication:	Weekly. Friday 2-3pm London time

UNITED STATES

MB-FEV-0002	Ferro-vanadium 70-80% V, in-whs Pittsburgh, \$/lb
Quality:	V 70-80%
Quantity:	Min 10 tons
Location:	In-warehouse Pittsburgh
Unit:	USD per lb
Publication:	Weekly. Thursday

CHINA

MB-FEV-0003	Ferro-vanadium 78% V min, fob China, \$/kg V
Quality:	Lump. V 78% min, Al 1.5% max, Si 2% max, C 0.06%, S 0.05%, P 0.05%, As 0.06%, Mn 0.5%, Cu 0.1%, Ni 0.15%, Mesh size 10-50mm, 90% min.
Quantity:	Min 5 tonnes (+/- 5%)
Location:	fob China (other delivery terms normalized)
Timing:	Within 20 days
Unit:	\$/kg V
Payment terms:	L/C, T/T, other payment terms normalized
Publication:	Weekly, Thursday 2-3pm London time
Notes:	Assessed by Fastmarkets in London and Shanghai

MB-V-0002	Vanadium pentoxide 98% V2O5 min, fob China, \$/lb V2O5
Quality:	Brown flake. V 98% min, Si, 0.25% max, Fe 0.30% max, S 0.03% max, P 0.05% max, As 0.02% max, Na2+K2O 1.50% max.
Quantity:	Min 5 tonnes (+/- 5%)
Location:	fob China (other delivery terms normalized)
Timing:	Within 20 days
Unit:	\$/lb V2O5
Payment terms:	L/C, T/T, other payment terms normalized
Publication:	Weekly, Thursday, 2-3pm London time
Notes:	Assessed by Fastmarkets in London and Shanghai

Ores

Bauxite

AFRICA

MB-BX-0014	Bauxite, fob Kamsar, Guinea, \$/dmtu
Quality:	Total alumina 48.5% min, 53% max; total silica 1.20% min, 2.10% max; reactive silica 3.2% max; Fe 22% max; Ti 4% max; organic carbon 0.15% max; moisture content 5.5% min, 7.5% max
Quantity:	Minimum 20,000 tonnes
Location:	fob Kamsar (other ports normalized)
Timing:	Within two months
Unit:	USD per dmtu
Payment terms:	30 days after loading (other payment terms normalized)
Publication:	Monthly. Third Thursday of the month 2-3pm London time
Notes:	Bulk carrier

LATIN AMERICA

MB-BX-0015	Bauxite, fob Trombetas, Brazil, \$/dmtu
Quality:	Total alumina 50.5% min, 55% max; total silica 4.3% min, 5.6% max; reactive silica 4% min, 5% max; Fe 12% max; Ti 1.5% max; moisture content 9% min, 10% max
Quantity:	Min 20,000 tonnes
Location:	fob Trombetas (other ports normalized)
Timing:	Within two months
Unit:	USD per dmtu
Payment terms:	30 days after loading (other payment terms normalized)
Publication:	Monthly. Third Thursday of the month between 2pm and 3pm London time
Notes:	Bulk carrier

Chrome ore

AFRICA

MB-CHO-0003	Chrome ore South Africa UG2 concentrates index basis 42%, cif China, \$/tonne
Quality:	Up to 1mm (95% min). Cr base 42%, range 40-43%; Silica max 6%; Alumina max 18%; MgO max 0.15%; P max 0.01%; S max 0.01%; chrome-iron ratio 1.2:1 min
Quantity:	Min 2,000 tonnes
Location:	cif China
Unit:	USD per tonne
Payment terms:	Payment at sight
Publication:	Weekly. Friday 3pm London time
Notes:	Bulk (container deals normalized)

CHINA

MB-CHO-0002	Chrome ore Turkish lumpy 40-42%, cfr main Chinese ports, \$/tonne
Quantity:	1,000 tonnes
Quality:	Lump. Cr 40-42; Silica 15% max; Alumina 16% max; MgO 26% max; S 0.02%; P 0.01%; chrome-iron ratio 2.6:1 (2.5:1 min)
Location:	cfr China main ports
Unit:	USD per tonne
Payment terms:	Payment at sight
Publication:	Weekly. Friday Between 2pm and 3pm London time

Manganese ore

SOUTH AFRICA

MB-MNO-0002	Manganese ore 37% Mn, fob Port Elizabeth, \$/dmtu
Quality:	5.5-75mm lump. Mn base 37%, range 35-39%; Fe base 5%, max 10%; Silica base 5.5%, max 12%; P base 0.025%, max 0.160%; alumina base 0.2%, max 2%. Moisture content base 4%, max 12%
Quantity:	Min 5,000 tonnes
Location:	fob Port Elizabeth (South Africa)
Timing:	Within nine weeks
Unit:	US\$ per dry metric tonne unit
Payment:	Cash or equivalent
Publication:	Friday, 3pm London

CHINA

MB-MNO-0001	Manganese ore 44% Mn, cif Tianjin, \$/dmtu
Quality:	5.5-75mm lump. Mn base 44%, range 42-48%; Fe base 5%, max 16%; silica base 11%, max 12%; P base 0.10%, max 0.16%; alumina base 5%, max 14%. Moisture base 4%, max 12%
Quantity:	Min 5,000 tonnes
Location:	cif Tianjin – normalized for other mainland China sea ports
Timing:	Within nine weeks
Unit:	US\$ per dry metric tonne unit, cif Tianjin, China
Payment:	Cash or equivalent
Publication:	Friday, 3pm London

MB-MNO-0003	Manganese ore index 37% Mn, cif Tianjin, \$/dmtu
Quality:	5.5-75mm lump. Mn base 37%, range 35-39%; Fe base 5%, max 10%; Silica base 5.5%, max 12%; P base 0.025%, max 0.160%; alumina base 0.2%, max 2%. Moisture content base 4%, max 12%
Quantity:	Min 5,000 tonnes
Location:	cif Tianjin – normalized for other China mainland sea ports
Timing:	Within nine weeks
Unit:	US\$ per dry metric tonne unit,
Payment:	Cash or equivalent
Publication:	Friday, 3pm London

MB-MNO-0005	Manganese ore port index, base 44% Mn, range 42-48%, fot Tianjin China, yuan/dmtu
Quality:	5.5-75mm lump. Mn base 44%, range 42-48%; Fe base 5%, max 16%; silica base 11%, max 12%; P base 0.10%, max 0.16%; alumina base 5%, max 14%. Moisture base 4%, max 12%
Quantity:	Min 1,000 tonnes
Location:	fot Tianjin – normalized for other China mainland sea ports
Timing:	Immediate
Unit:	CNY per dry metric tonne,
Payment:	Cash or equivalent
Publication:	Friday, 3pm London

MB-MNO-0004	Manganese ore port index, base 37% Mn, range 35-39%, fot Tianjin China, yuan/dmtu
Quality:	5.5-75mm lump. Mn base 37%, range 35-39%; Fe base 5%, max 10%; Silica base 5.5%, max 12%; P base 0.025%, max 0.160%; alumina base 0.2%, max 2%. Moisture content base 4%, max 12%
Quantity:	Min 1,000 tonnes
Location:	fot Tianjin – normalized for other China mainland sea ports
Timing:	Immediate
Unit:	Yuan per dry metric tonne unit
Payment:	Cash or equivalent
Publication:	Friday, 3pm London

Nickel ore

CHINA

MB-NIO-0001 **Nickel ore 1.8% basis 15-20% Fe water content: 30-35% Si:Mg ratio<2 lot size 50,000 tonnes, cif China, \$/tonne**

Quality: 1.8% Ni, 15-20% Fe, Water content 30-35%, Si:Mg ratio <2

Quantity: 50,000 tonnes

Location: cif China

Unit: USD per tonne

Payment terms: Letter of Credit

Publication: Weekly. Tuesday 2-3pm London time

MB-NIO-0002 **Laterite ore with 1.5% Ni content, cif China, \$/tonne**

Quality: Nickel ore 1.5% Ni, 15-20% Fe, water content 30-35%

Quantity: 50,000 tonnes

Location: cif China

Unit: USD per tonne

Payment terms: Cash, other payment terms normalized

Publication: Weekly. Tuesday 2-3pm London time

Minor metals

Fastmarkets' antimony, arsenic, bismuth, cadmium, chromium, gallium, hafnium, indium, manganese, mercury, rhenium and selenium prices are produced in line with the specifications published by the Minor Metals Trade Association.

Antimony

CHINA

MB-SB-0003 Antimony MMTA standard grade II, ddp China, yuan/tonne

Quality:	Ingot. MMTA standard Grade II. Sb 99.65% min, As 0.1% max, Pb 0.2% max, Se 0.002% max, Cd 0.002% max, Sn 0.005% max, Te 0.005% max, Bi 0.01% max, Cu 0.02% max, Fe 0.02% max
Quantity:	1 tonne
Location:	Delivered duty paid China
Unit:	CNY/tonne
Payment terms:	Cash
Publication:	Weekly. Wednesday between 2pm and 3pm London time

EUROPE

MB-SB-0002 Antimony MMTA standard grade II, in-whs Rotterdam, \$/tonne

Quality:	Ingot. Sb 99.65% min, As 0.15% max, Se 50ppm max
Quantity:	10 tonnes (+/-2%)
Location:	In-whs Rotterdam
Timing:	Prompt, within 10 calendar days
Unit:	USD per tonne
Payment terms:	Cash, other payment terms normalized
Publication:	Twice weekly. Wednesday and Friday 2-3pm London time
Notes:	Original producer packaging, on pallets or in wooden cases

MB-SB-0001 Antimony max 100 ppm Bi, in-whs Rotterdam, \$/tonne

Quantity:	Min 10 tonnes (+/-2%)
Quality:	Ingot. Sb Min 99.65% min, Bi 100ppm max, Se 50ppm max, Cu 200ppm max, Fe 200ppm max, Pb 0.2% max
Location:	In-whs Rotterdam
Timing:	Prompt, within ten calendar days
Unit:	USD/tonne
Payment terms:	Cash, other payment terms normalized
Publication:	Twice weekly. Wednesday and Friday 2-3pm London time
Notes:	Original producer packaging, on pallets or in wooden cases

Arsenic

EUROPE

MB-AS-0001 Arsenic 99.7% min As, in-whs Rotterdam, \$/lb

Quality:	Lumpy, fist-sized and smaller. As 99% min, no other elements specified
Quantity:	1 tonne (+/-2%)
Location:	In-whs Rotterdam
Timing:	Prompt release
Unit:	USD per lb
Payment terms:	Cash, other payment terms normalized
Publication:	Twice weekly. Wednesday and Friday 2-3pm London
Notes:	Original producer poly-lined steel drums, each 50kg net, in accordance with the IMDG code and RID & ADR rules

Bismuth

EUROPE

MB-BI-0001	Bismuth 99.99% Bi min, in-whs Rotterdam, \$/lb
Quality:	Ingot. Bi 99.99%, no other elements specified
Quantity:	Min 1 tonne
Location:	Rotterdam
Timing:	Prompt release
Unit:	USD/lb
Payment terms:	Cash, other payment terms normalized
Publication:	Twice weekly. Wednesday and Friday 2-3pm London time
Notes:	Original producer packaging

CHINA

MB-BI-0002	Bismuth 99.99% Bi min, in-whs China, yuan/tonne
Quality:	Ingot. Bi 99.99% min, no other elements specified
Quantity:	1 tonne
Location:	In-whs China
Unit:	CNY/tonne
Payment terms:	Cash, other payment terms normalized
Publication:	Weekly. Friday 2-3pm London time

Cadmium

GLOBAL

MB-CD-0001	Cadmium 99.95% min, cif global ports, cents/lb
Quality:	Sticks or ingots. Cd 99.95%, no other elements specified
Quantity:	Min 10 tonnes
Location:	CIF global port basis
Timing:	Prompt release
Unit:	US cents per lb
Payment terms:	Cash, other payment terms normalized
Publication:	Twice weekly. Wednesday and Friday 2-3pm London

MB-CD-0002

Cadmium 99.99% min, cif global ports, cents/lb

Quality:	Sticks or ingots. Cd 99.99%, no other elements specified
Quantity:	Min 10 tonnes
Location:	cif global port basis
Timing:	Prompt release
Unit:	US cents per lb
Payment terms:	Cash, other terms normalized
Publication:	Twice weekly. Wednesday and Friday 2-3pm London time

Chromium

EUROPE

MB-CR-0001

Chromium alumino-thermic 99% min, in-whs Rotterdam, \$/tonne

Quality:	Lump conforming to MMTA Russian X99H4. Cr 99% min, Fe 0.5% max, Al 0.2% max, Si 0.2% max, C 0.03% max, S 0.02% max, Pb 0.0008% max, Cu 0.01% max, P 0.02% max, Zn 0.006% max, Sb 0.008% max, Sn 0.004% max, Bi 0.0005% max, As 0.01% max, Co 0.005% max, N 0.04% max
Quantity:	Min 10 tonnes (+/-2%)
Location:	In-whs Rotterdam
Timing:	Prompt release
Unit:	USD per tonne
Payment terms:	Cash, other terms normalized
Publication:	Weekly. Friday between 2pm and 3pm London time
Notes:	Steel drums of uniform net weight, usually 300kg

UNITED STATES

MB-CR-0002

Chromium alumino-thermic 99% min ex-US warehouse \$/lb

Quality:	Lump. Min 99% chromium
Quantity:	3 tonnes
Location:	Ex-warehouse, US
Unit:	USD per pound
Publication:	Once a week every Thursday
Notes:	Packaged in drums

Cobalt

CHINA

MB-CO-0012	Cobalt tetroxide 72.6% Co min, delivered China, yuan/tonne
Quality:	Min 72.6% Co
Location:	Delivered China
Unit:	CNY/tonne
Quantity:	Min 1 tonne
Payment terms:	Cash
Publication:	Twice weekly. Wednesday and Friday between 2pm and 3pm London time

MB-CO-0001	Cobalt 99.8% Co min, ex-works China, yuan/tonne
Quality:	Cobalt metal, Co 99.8% min
Location:	Ex-works China
Unit:	CNY/tonne
Quantity:	Min 1 tonne
Form:	Cathode
Payment terms:	Cash
Publication:	Twice weekly. Wednesday and Friday between 2pm and 3pm London time

EUROPE

MB-CO-0004	Cobalt alloy grade, in-whs Rotterdam, \$/lb
Quality:	Min 99.8% cobalt metal; standard specifications of the following brands in original packaging: Nikkelverk cut cathodes, Vale cobalt rounds, SMM cut cathodes, Jinchuan cut cathodes, Jiangsu (KLK) broken cathodes, Sherritt briquettes
Quantity:	Minimum 1 tonne, maximum 100 tonnes
Location:	Rotterdam, in-warehouse
Timing:	Within 30 days, other terms normalized
Unit:	US\$ per lb
Payment terms:	Cash; other terms normalized
Publication:	Daily. Monday to Friday, at 3pm London time

MB-CO-0005	Cobalt standard grade, in-whs Rotterdam, \$/lb
Quality:	Min 99.8% cobalt metal; standard specifications of the following brands in original packaging: Katanga cathodes, Chambishi broken cathodes, CTT broken cathodes, Minara briquettes, Ambatovy briquettes, Norilsk grade 1 and grade 2 cut cathodes (production since January 2019)
Quantity:	Minimum 1 tonne, maximum 100 tonnes
Location:	Rotterdam, in-warehouse
Timing:	Within 30 days, other terms normalized
Unit:	US\$ per lb
Payment terms:	Cash; other terms normalized
Publication:	Daily. Monday to Friday, at 3pm London time

* Fastmarkets MB changed the names of its benchmark in-warehouse Rotterdam assessments in January 2019. From January 2019, the name 'standard-grade' replaced the name 'low-grade'. The name 'alloy-grade' replaced the name 'high-grade'.

Cobalt sulfate

Please see **Battery Raw Materials** section.

Gallium

EUROPE

MB-GA-0001	Gallium 99.99% Ga min, in-whs Rotterdam, \$/kg
Quality:	Ingot. Ga: 99.99% min, no other elements specified
Quantity:	Min 100kg (+/- 2%)
Location:	In-whs Rotterdam
Timing:	Prompt release
Unit:	USD/kg
Payment terms:	Cash, other terms normalized
Publication:	Twice weekly. Wednesday and Friday 2-3pm London time
Notes:	Packed in plastic sleeves, original producer cases

MB-GA-0002	Gallium 99.99% Ga min, in-whs China, yuan/kg
Quality:	Ingot. Ga: 99.99% min, no other elements specified
Quantity:	Min 50kg
Location:	China
Unit:	CNY/kg
Payment terms:	Cash, other payment terms normalized
Publication:	Weekly. Wednesday by 3pm London time.

MB-GER-0001	Germanium dioxide, in-whs China, \$/kg
Quality:	GeO ₂ 99.99 % min, Ge 69 % approx. White powder
Quantity:	Min 100 kg (+/- 2%)
Location:	In-whs China
Timing:	Prompt release
Unit:	USD/kg
Payment terms:	Cash, other payment terms normalized
Publication:	Twice-weekly. Wednesday and Friday between 2pm and 3pm London time
Notes:	Original producer cases, normally 25kg each

Germanium

CHINA

MB-GER-0004	Germanium 99.999% Ge min, in-whs China, yuan/kg
Quality:	Ingot with no specific dimension or weight. Ge 99.999% min, 50ohm/cm; no other elements specified
Quantity:	Min 50 kg
Location:	In-whs China
Unit:	CNY/kg
Payment terms:	Cash, other payment terms normalized
Publication:	Weekly. Wednesday by 3pm London time

EUROPE

MB-GER-0003	Germanium 99.99% Ge, in-whs Rotterdam, \$/kg
Quality:	Min 100 kg (+/- 2%)
Quality:	Ingot. Ga 99.999%, no other elements specified
Location:	In-whs Rotterdam
Timing:	Prompt release
Unit:	USD/kg
Payment:	Cash, other payment terms normalized
Publication:	Twice-weekly. Wednesday and Friday between 2pm and 3pm London time
Notes:	Packed in plastic sleeves, original producer cases

Hafnium

GLOBAL

MB-ZIR-0003	Hafnium, max 1% Zr, in-whs global locations, \$/kg
Quality:	Hf+Zr 99.8% min; Zr 1%. Uniform lots of 5kg max cut ingot, plate, sheet or bar
Quantity:	Min 50kg
Location:	Global
Unit:	USD/per kg
Payment terms:	Cash, other payment terms normalized
Publication:	Fortnightly. Friday 2-3pm London time
Notes:	Hafnium is classed as a 'dual use' metal under the Non-proliferation of Nuclear Weapons Treaty and may require end-user statements and import/export licences

Indium

EUROPE

MB-IN-0002	Indium 99.99%, in-whs Rotterdam, \$/kg
Quality:	In: 99.99%, no other elements specified. Ingots, usually between 0.5kg and 3.5 kg; also 10 kg ingots
Quantity:	Min 100kg
Location:	In-whs Rotterdam
Timing:	Prompt release
Unit:	USD/kg
Payment terms:	Cash, other terms normalized
Publication:	Twice-weekly. Wednesday and Friday 2-3pm London time
Notes:	Original producer wooden cases

CHINA

MB-IN-0003	Indium 99.99% ex-works China CNY/kg
Quality:	500g ingot. In 99.995% min, Cu 0.0005% max, Pb 0.0005% max, Zn 0.0005% max, Cd 0.0005% max, Fe 0.0005% max, Ti 0.0005% max, Sn 0.0010% max, As 0.0005% max, Al 0.0005% max
Quantity:	Min 1kg
Location:	Ex-works China
Unit:	CNY per kg
Payment terms:	Cash on spot
Publication:	Weekly. Wednesday between 2pm and 3pm London time

Magnesium

EUROPE

MB-MG-0001	Magnesium 99.9%, in-whs Rotterdam, \$/tonne
Quality:	Ingots, free from oxidation, of uniform size and weight. Mg 99.9% min, Fe 0.04% max, Si 0.02% max, Ni 0.002% max, Cu 0.01% max, AL 0.02% max, Mo 0.03% max, Cl 0.05% max, others 0.1% max
Quantity:	20 tonnes (+/- 2%)
Location:	In-whs Rotterdam
Unit:	USD/tonne
Payment terms:	Cash, other terms normalized
Publication:	Weekly. Friday 2-3pm London time

CHINA

MB-MG-0003	Magnesium 99%, exw China, yuan/tonne
Quality:	Ingot. Mg 99.9% min
Quantity:	Min 20 tonnes (+/- 2%)
Location:	Ex-works China
Unit:	CNY/tonne
Payment terms:	Cash on spot
Publication:	Weekly. Friday 2-3pm London time
MB-MG-0002	Magnesium 99.8% Mg min, fob China main ports, \$/tonne
Quality:	Ingot. Mg 99.8% min
Quantity:	Min 10 tonnes (+/-2%)
Location:	fob China main ports
Unit:	USD/tonne
Payment terms:	LC or TT
Publication:	Weekly. Friday between 2pm and 3pm London time

Manganese

EUROPE

MB-MN-0001	Manganese 99.7% electrolytic manganese flake, in-whs Rotterdam, \$/tonne
Quality:	Flake. Mn: 99.7% S: 500 ppm max P: 50 ppm max C: 400 ppm max Fe+Se+Si: 0.205% max
Quantity:	Min 25 tonnes (+/-2%)
Location:	Rotterdam
Timing:	Prompt, within ten calendar days
Unit:	USD/tonne
Payment terms:	Cash, other payment terms normalized
Publication:	Twice-weekly. Wednesday and Friday by 3pm London time
Notes:	Big bags or steel drums

UNITED STATES
MB-MN-0006 Manganese electrolytic metal 99.7% Mn min, ex-whs US, \$/lb

Quality:	Flake. Min 99.7% manganese
Quantity:	Min 10 tonnes
Location:	Ex-warehouse, US
Unit:	USD per pound
Payment terms:	Cash, other terms normalized
Publication:	Weekly, every Thursday
Notes:	Bulk

CHINA
MB-MN-0007 Manganese 99.7% electrolytic manganese flake, fob China, \$/tonne

Quality:	Flake; Mn: 99.7% basis; S: 500 ppm max; P: 50 ppm max; C: 400 ppm max; Fe+Se+Si: 0.205% max; packaged as big bags or steel drums
Quantity:	Min 20 tonnes
Location:	fob China main ports
Timing:	Spot, within one week
Unit:	USD per tonne
Payment terms:	TT or LC
Publication:	Weekly. Friday 2-3pm London time

Mercury

GLOBAL
MB-HG-0001 Mercury 99.99%, in-whs global locations, \$/flask

Quality:	Free-flowing liquid. Hg 99.99%, no other elements specified
Quantity:	50 flasks with zero tolerance
Location:	Global
Timing:	Within one calendar month
Unit:	USD per flask
Payment terms:	Cash, other terms normalized
Publication:	Fortnightly. Friday between 2pm and 3pm London time
Notes:	34.5kg UN-approved steel flasks

Rhenium

EUROPE
MB-RE-0001 Rhenium APR catalytic grade, in-whs dup Rotterdam, \$/kg

Quality:	White, free flowing powder/crystal ammonium perrhenate, Re 68.5 - 69.8% min
Quantity:	Min 20 kg (+/-2%)
Location:	Duty unpaid Rotterdam
Unit:	USD/kg
Delivery time:	Within one calendar month
Payment terms:	Cash, other terms normalized
Publication:	Fortnightly. Friday 2-3pm London
Notes:	Uniform IMDG-approved containers, individually sealed and numbered

MB-RE-0002 Rhenium metal pellets 99.9% Re min, in-whs dup, Rotterdam \$/lb

Quality:	White, free flowing powder/crystal rhenium pellets, Re 99.9% min
Quantity:	Min 10 kg (+/-2%)
Location:	Rotterdam, duty unpaid
Timing:	Within one calendar month
Unit:	USD/lb
Payment terms:	Cash, other terms normalized
Publication:	Fortnightly. Friday by 3pm London time
Notes:	In uniform IMDG approved containers, individually sealed and numbered

Selenium

EUROPE
MB-SE-0002 Selenium 99.5% Se min, in-whs Rotterdam, \$/lb

Quality:	Powder of minus 200 mesh or granules sizing 1-5 mm. Se 99.5% min, no other elements specified
Quantity:	Min 250kg (+/-2%)
Location:	In-whs Rotterdam
Timing:	Prompt release
Unit:	USD/lb
Payment terms:	Cash, other terms normalized
Publication:	Twice-weekly. Wednesday and Friday 2-3pm London time
Notes:	Original producer packaging, normally 25kg net

CHINA

MB-SE-0003	Selenium 99.9% Se min, in-whs China, yuan/kg
Quality:	Powder of minus 200 mesh or granules size 1-5 mm. Se 99.9% min, no other elements specified
Quantity:	Min 100 kg
Location:	In-whs China
Unit:	CNY/kg
Payment terms:	Cash, other payment terms normalized
Publication:	Weekly. Friday by 3pm London time

Silicon

EUROPE

MB-SI-0001	Silicon grade 4-4-1 99% Si min, in-whs Rotterdam, €/tonne
Quality:	10-100mm lump 90% min. Si 99% min, Fe 0.4% max, Al 0.4% max, Ca 0.1% max
Quantity:	Min 25 tonnes (+/- 2%)
Location:	In-whs Rotterdam
Unit:	EUR/tonne
Payment terms:	Cash, other terms normalized
Publication:	Weekly. Friday between 2pm and 3pm London time
Notes:	1 tonne big bag

MB-SI-0004	Silicon grade 5-5-3 98.5% Si min, in-whs Rotterdam, €/tonne
Quality:	10-100mm lump. Silicon 98.50%, iron 0.50% max, aluminium 0.50% max, calcium 0.30% max
Quantity:	Min 25 tonnes (+/- 2%)
Location:	In-whs Rotterdam
Timing:	Prompt
Unit:	EUR/Tonne
Payment terms:	Cash, other terms normalized
Publication:	Once a week. Friday between 2pm and 3pm London time
Notes:	1 tonne big bag

CHINA

MB-SI-0002	Silicon export 98.5% Si min, fob China, \$/tonne
Quality:	Lump. Si 98.5% min, Fe 0.5% max, Al 0.5% max, Ca 0.3% max
Quantity:	Min 20 tonnes
Location:	fob China main ports
Unit:	USD/tonne
Payment terms:	TT
Publication:	Weekly. Friday 2-3pm London time

UNITED STATES

MB-SI-0003	Silicon, ddp US, US cents/lb
Quality:	Si: 98.50%, Fe: 0.50%, Al: 0.50%, Ca: 0.30%
Quantity:	Min 20 tons
Location:	Delivered US
Unit:	US cents per lb
Publication:	Monthly

Tellurium

EUROPE

MB-TE-0001	Tellurium 99.9-99.99% Te min, in-whs Rotterdam, \$/kg
Quality:	Ingots, sticks or powder. Te 99.9-99.99%, no other elements specified
Quantity:	Min 100 kg (+/-2%)
Location:	In-whs Rotterdam
Timing:	Prompt
Unit:	USD/kg
Payment terms:	Cash, other terms normalized
Publication:	Twice-weekly. Wednesday and Friday between 2pm and 3pm London time
Notes:	Original producer packaging

CHINA

MB-TE-0002	Tellurium 99.99% Te min, in-whs China, yuan/kg
Quality:	Ingots, sticks or powder. Te 99.99% min, no other elements specified
Quantity:	Min 500kg
Location:	In-whsChina
Unit:	CNY/kg
Payment terms:	Cash, other terms normalized
Publication:	Weekly. Friday 2-3pm London time

Battery raw materials

Cobalt sulfate

MB-CO-0021
CHINA

MB-CO-0017	Cobalt sulfate 20.5% Co basis, exw China, yuan/tonne
Quality:	Crystal, feed from cobalt ores & concentrates, cobalt intermediates, such as crude cobalt hydroxide (materials produced from cobalt scrap are excluded). Co 20.5% basis, Ni 0.001% max, Cu 0.001% max, Fe 0.001% max, Zn 0.001% max
Quantity:	Min 1 tonne
Timing:	Within 30 days
Unit:	CNY/tonne
Payment terms:	On bank acceptance (other terms normalized)
Publication:	Twice weekly. Wednesday and Friday, 2-3pm London time

Quality:	Units produced from large-scale mining activity, with the following chemical composition: Co 30% min, Mn 6.5% max, Mg 6.5% max, S 5% max; Cd 100ppm max; limited concentration of natural radioactivity: GB20664-2006 (suitable for customs clearance into China).
Quantity:	Min 50 tonnes (cobalt content)
Location:	cif China (other terms normalized)
Timing:	45 days
Unit:	% payable of Fastmarkets' standard-grade cobalt price (low end, \$/lb)
Payment terms:	Letter of credit at sight, current and following price month ('M' and 'M+1')
Publication:	Weekly, Wednesday, 3pm London time.
Notes:	Where the publication day falls on a public holiday in England and Wales, the assessment will be rolled over from previous pricing session.

Cobalt hydroxide

CHINA

MB-CO-0020	Cobalt hydroxide index 30% Co min, cif China, \$/lb
Quality:	Units produced from large-scale mining activity, with the following chemical composition: Co 30% min, Mn 6.5% max, Mg 6.5% max, S 5% max; Cd 100ppm max; limited concentration of natural radioactivity: GB20664-2006 (suitable for customs clearance into China).
Quantity:	Min 50 tonnes (cobalt content)
Location:	cif China (other terms normalized)
Timing:	45 days
Unit:	\$/lb
Payment terms:	Letter of credit at sight, current price month ('M')
Publication time:	5pm London time, last working day of the month.

Lithium

CHINA

MB-LI-0036 Lithium carbonate 99.5% Li₂CO₃ min, battery grade, spot price range exw domestic China, yuan/tonne

MB-LI-0037 Lithium carbonate 99.5% Li₂CO₃ min, battery grade, spot price exw domestic China, yuan/tonne

MB-LI-0042 Lithium carbonate index, min 99.5% Li₂CO₃, battery grade, exw China, yuan/tonne

Quality: Powder. Min 99.5% Li₂CO₃ (delivery of Min 99.2% Li₂CO₃ also accepted, qualified for use in battery applications)
 Quantity: Min 5 tonnes
 Location: China ex-works, VAT included
 Timing: 30 days
 Unit: CNY/tonne
 Publication: Weekly. Thursday by 4pm London
 Notes: Index and assessment. The tonnage-weighted index is intended to run in parallel with the existing assessment.

MB-LI-0040 Lithium hydroxide monohydrate 56.5% LiOH.H₂O min, battery grade, spot price range exw domestic China, yuan/tonne

MB-LI-0041 Lithium hydroxide monohydrate 56.5% LiOH.H₂O min, battery grade, spot price exw domestic China, yuan/tonne

Quality: Powder. Min 56.5% LiOH.H₂O (qualified for use in battery applications)
 Quantity: Min 5 tonnes
 Location: China ex-works, VAT included
 Unit: CNY/tonne
 Publication: Weekly. Thursday by 4pm London

EAST ASIA, SOUTHEAST ASIA

MB-LI-0029 Lithium carbonate 99.5% Li₂CO₃ min, battery grade, spot prices cif China, Japan & Korea, \$/kg

Quality: Powder. Min 99.2-99.5% Li₂CO₃ (delivery of Min 99.2% Li₂CO₃ also accepted, qualified for use in battery applications)
 Quantity: Min 5 tonnes
 Location: cif main Chinese Japanese & South Korean ports (other ports normalized)
 Unit: USD/kg
 Publication: Weekly. Thursday by 4pm London

MB-LI-0033 Lithium hydroxide monohydrate 56.5% LiOH.H₂O min, battery grade, spot price cif China, Japan & Korea, \$/kg

Quality: Powder. Min 56.5% LiOH.H₂O (qualified for use in battery applications)
 Quantity: Min 5 tonnes
 Location: cif main Chinese Japanese & South Korean ports (other ports normalized)
 Unit: USD/kg Form: Powder
 Publication: Weekly. Thursday by 4pm London

MB-LI-0031 Lithium hydroxide monohydrate 56.5% LiOH.H₂O min, battery grade, contract price cif China, Japan & Korea, \$/kg

Quality: Powder. Min 99.5% Li₂CO₃ (delivery of Min 99.2% Li₂CO₃ also accepted, qualified for use in battery applications)
 Quantity: Min 20 tonnes
 Location: cif China, Japan & South Korea
 Timing: Up to 1 year
 Unit: USD/kg
 Publication: Monthly, last Wednesday of the month between 3pm and 4pm London time

EUROPE & US

MB-LI-0023 **Lithium carbonate 99.5% Li₂CO₃ min, battery grade, spot price ddp Europe and US, \$/kg**

Quality: Powder. Min 99.5% Li₂CO₃ (delivery of Min 99.2% Li₂CO₃ also accepted, qualified for use in battery applications)

Quantity: Min 5 tonnes

Location: ddp US & Europe

Timing: 30 days

Unit: USD/kg

Publication: Weekly, Thursday 3-4pm London time

MB-LI-0025 **Lithium hydroxide monohydrate 56.5% LiOH.H₂O min, battery grade, spot price ddp Europe and US, \$/kg**

Quality: Powder. Min 56.5% LiOH.H₂O (qualified for use in battery applications)

Quantity: Min 5 tonnes

Location: ddp US & Europe

Timing: 30 days

Unit: USD/kg

Publication: Weekly, Thursday 3-4pm London time

MB-LI-0024 **Lithium hydroxide monohydrate 56.5% LiOH.H₂O min, battery grade, contract price ddp Europe and US, \$/kg**

Quality: Powder. Min 99.5% Li₂CO₃ (delivery of Min 99.2% Li₂CO₃ also accepted, qualified for use in battery applications)

Quantity: Min 20 tonnes

Location: DDP US & Europe

Timing: Up to 1 year

Unit: USD/kg

Publication: Monthly, last Wednesday of the month 3-4pm London time

Graphite

CHINA

MB-GRA-0036 **Graphite spherical 99.95% C, 15 microns, fob China, \$/tonne**

Quality: 99.95% C, 15 microns, uncoated

Quantity: Min 20 tonnes

Location: fob China

Unit: USD/tonne

Publication: Weekly. Thursday by 4pm London

MB-GRA-0042 **Graphite flake 94% C, -100 mesh, fob China, \$/tonne**

Quality: Flake 94% C, -100 Mesh

Quantity: Min lot size: 20 tonnes

Location: fob China, FCL

Unit: US\$ per tonne

Publication: Weekly, Thursday by 4pm, London

Nickel Sulfate

CHINA

MB-NI-0244 **Nickel sulfate min 21%, max 22.5%; cobalt 10ppm max, exw China, yuan/tonne**

Quality: Nickel content min 21%, max: 22.5%; cobalt 10ppm max

Quantity: Min 1 tonne

Unit: CNY/tonne

Payment terms: Bank acceptance (other payments normalized)

Publication: Weekly. Tuesdays by 4pm London time

Scrap

Copper scrap

CHINA

MB-CU-0360 **Copper scrap No.2 copper (birch/cliff) imported into China 94-96%, LME/Comex discount, cif China, US cents/lb**

Quality:	94-96% copper content, US or European origin; discount to LME or Comex
Quantity:	Min 25 tonnes
Location:	cif Chinese ports (Shanghai, Guangdong, Zhejiang, Tianjin and Shandong)
Timing:	Within 5 weeks
Unit:	US cents/lb
Payment:	Cash against documents, letter of credit, telegraphic transfer; other terms normalized
Publication:	Monthly. Last Monday of each month 3-4pm London time

Aluminium scrap

UNITED KINGDOM

MB-AL-0282 **Aluminium scrap baled old rolled, LME discount, delivered consumer UK, £/tonne**

Quality:	Wrought scrap of alloyed and unalloyed aluminium. Maximum 2% calcareous and other non-metallic substances
Quantity:	Min 5 tonnes
Location:	Delivered consumer works, UK
Timing:	Within 4 weeks
Unit:	GBP/tonne
Payment terms:	Net monthly account
Publication:	Weekly. Wednesday 3-4pm London time

MB-AL-0007

Quality:	Cast aluminium wheels
Quantity:	Min 5 tonnes
Location:	Delivered consumer works, UK
Timing:	Within 4 weeks
Unit:	GBP/tonne
Payment terms:	Net monthly account
Publication:	Weekly. Wednesday 3-4pm London

Aluminium scrap cast wheels, delivered consumer UK, £/tonne

MB-AL-0009

Quality:	Clean HE9 extrusion scrap. Cu 0.1% max, Zn 0.1% max, free from deleterious materials, oil, grease, non-metallic coatings max 1%
Quantity:	Min 5 tonnes
Location:	Delivered consumer works, UK
Timing:	Within 4 weeks
Unit:	GBP/tonne
Payment terms:	Net monthly account
Publication:	Weekly. Wednesday 3-4pm London

Aluminium scrap clean HE9 extrusions, delivered consumer UK, £/tonne

MB-AL-0010

Quality:	Whole or broken aluminium castings of all kinds
Quantity:	Min 5 tonnes
Location:	Delivered consumer works, UK
Timing:	Within 4 weeks
Unit:	GBP/tonne
Payment terms:	Net monthly account
Publication:	Weekly. Wednesday 3-4pm London

Aluminium scrap commercial cast, delivered consumer UK, £/tonne

MB-AL-0011

Quality:	New, uncoated, mixed alloys, pure sheet scrap. May contain proportion of one of more aluminium alloys, none of which shall contain more than 0.1% Cu and 0.1% each of Pb, Zn, Sn, antimony, bismuth. Mg 0.5% max. No 2000 or 7000 series metal
Quantity:	Min 5 tonnes
Location:	Delivered consumer works, UK
Timing:	Within 4 weeks
Unit:	GBP/tonne
Payment terms:	Net monthly account
Publication:	Weekly. Wednesday 3-4pm London

Aluminium scrap commercial pure cuttings, delivered consumer UK, £/tonne

MB-AL-0012 Aluminium scrap commercial turnings, delivered consumer UK, £/tonne

Quality: Clean, uncorroded aluminium borings, millings and turnings of two or more specified alloys. Zn 2% max, Fe fines 3% max, oil/moisture/free iron 10% max

Quantity: 5 tonnes

Location: Delivered consumer works, UK

Timing: Within 4 weeks

Unit: GBP/tonne

Payment terms: Net monthly account

Publication: Weekly. Wednesday 3-4pm London time

MB-AL-0015 Aluminium scrap group 7 turnings, delivered consumer UK, £/tonne

Quality: Clean, uncorroded aluminium borings, millings and turnings of two or more specified alloys. Zn 7.5% max, Fe fines 3% max, oil/moisture/free iron 10% max

Quantity: Min 5 tonnes

Location: Delivered consumer works, UK

Timing: Within 4 weeks

Unit: GBP/Tonne

Payment terms: Net monthly account

Publication: Weekly. Wednesday 3-4pm London time

MB-AL-0014 Aluminium scrap group 1 pure 99% & litho, delivered consumer UK, £/tonne

Quality: New, uncoated, unalloyed aluminium sheet, wire and cable scrap, not burnt or corroded, baled. Al content minimum 99.9% (oil, grease, non-metallic coatings max 1%)

Quantity: 5 tonnes

Location: Delivered consumer works, UK

Timing: Within 4 weeks

Unit: GBP/tonne

Payment terms: Net monthly account

Publication: Weekly. Wednesday 3-4pm London time

MB-AL-0018 Aluminium scrap loose old rolled cuttings, delivered consumer UK, £/tonne

Quality: Wrought scrap of alloyed and unalloyed aluminium. Maximum 2% calcarious and other non-metallic substances

Quantity: Min 5 tonnes

Location: Delivered consumer works, UK

Timing: Within 4 weeks

Unit: GBP/tonne

Payment terms: Net monthly account

Publication: Weekly. Wednesday 3-4pm London time

EUROPE

MB-AL-0013 Aluminium scrap floated frag, delivered consumer Europe, €/tonne

Quality: Twitch floated fragmentiser aluminium scrap (from automobile shredders). Free Zn 1% max, free Mg 1% max, analytical Fe 1% max. Non-metallics 2% max (of which rubber & plastics 1% max)

Quantity: Min 25 tonnes

Location: Delivered consumer works, Europe

Timing: Within 4 weeks

Unit: EUR/tonne

Payment terms: 30 days, other payment terms normalized

Publication: Weekly. Friday 3-4pm London time

MB-AL-0019 Aluminium scrap mixed turnings, delivered consumer Europe, €/tonne

Quality: Clean, uncorroded aluminium borings, millings and turnings of two or more specified alloys. Zn 2% max. Fines 3% max, oil/moisture/free iron 10% max

Quantity: Min 25 tonnes

Location: Delivered consumer works, Europe

Timing: Within 4 weeks

Unit: EUR/tonne

Payment terms: 30 days, other payment terms normalized

Publication: Weekly. Wednesday 3-4pm London time

Secondary aluminium scrap

EUROPE

MB-AL-0005	Aluminium pressure diecasting ingot DIN226/A380, delivered Europe, €/tonne
Quality:	Ingot. Cu 2-4%, Mg 0.15-0.55%, Si 8-11%, Fe 0.6-1.1%, Mn 0.55% max, Ni 0.55% max, Zn 1.2% max, Cr 0.15% max, others each 0.05% max/total 0.25% max
Quantity:	Min 25 tonnes
Location:	Delivered consumer works in Europe, most consumers in Northern Europe, in particular Germany
Timing:	Within 2 months
Unit:	EUR/tonne
Payment terms:	30 days, other payment terms normalized
Publication:	Weekly. Friday 3-4pm London time

MB-AL-0008	Aluminium scrap cast, delivered consumer Europe, €/tonne
Quality:	Whole or broken aluminium castings of all kinds. Oil and grease not to total more than 2%
Quantity:	Min 25 tonnes
Location:	Delivered consumer works, Europe
Timing:	Within 4 weeks
Unit:	EUR/tonne
Payment terms:	30 days, other payment terms normalized
Publication:	Weekly. Friday 3-4pm London time

MB-AL-0016	Aluminium scrap LM24 pressure diecasting ingot, delivered consumer UK, £/tonne
Quality:	Ingot. Cu 3-4%, Mg 0.1% max, Si 7.5-9.5%, Fe 2% max, Mn 0.5% max, Ni 0.5% max, Zn 3% max.
Quantity:	Min 5 tonnes
Location:	Delivered consumer works, UK
Timing:	Within 2 months
Unit:	GBP/tonne
Payment terms:	Net monthly account
Publication:	Weekly. Wednesday 3-4pm London time

MB-AL-0017	Aluminium scrap LM6/LM25 gravity diecasting ingot, delivered consumer UK, £/tonne
Quality:	LM6 - Cu 0.1%, Mg 0.1% max, Si 10-13%, Fe 0.06% max, Mn 0.5% max, Ni 0.1% max, Zn 0.1% max, Pb 0.1% max, Tin 0.05% max, Ti 0.2% max. LM25 - Cu 0.2%, Mg 0.2-0.4%, Si 6.5-7.5% max, Fe 0.2% max, Mn 0.1% max, Zn 0.1% max
Quantity:	Min 5 tonnes
Location:	Delivered consumer works, UK
Timing:	Within 2 months
Unit:	GBP/tonne
Payment terms:	Net monthly account
Publication:	Weekly. Wednesday 3-4pm London time

Titanium scrap

EUROPE

MB-TI-0001	Titanium scrap turnings, unprocessed type 90/6/4, 0.5% Sn max, cif Europe, \$/lb
Quality:	Turnings. Ti 90%, Al 6%, V 4%, Sn 0.5%
Quantity:	18-22 tonne lots
Location:	cif major European ports
Unit:	USD/per lb Ti
Payment terms:	Cash. Other terms normalized
Publication:	Weekly. Wednesday 3-4pm London time

MB-TI-0002	Titanium scrap turnings, unprocessed type 90/6/4, 0.5-2% Sn max, cif Europe, \$/lb
Quality:	Turnings. Titanium 90%, Al 6%, V 4%, Sn 0.5-2%
Quantity:	18-22 tonne lots
Location:	cif major European ports
Unit:	USD/per lb Ti
Payment terms:	Cash. Other terms normalized
Publication:	Weekly. Wednesday 3-4pm London time

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