

Non-ferrous Scrap



Methodology and price
specifications – April 2023

Mission statement

Fastmarkets Metals and Mining 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 with Fastmarkets MB and Fastmarkets AMM since 1913 and 1882 respectively. Fastmarkets Forest Products meanwhile is the leading global provider of pricing intelligence for the global forest products industry, incorporating Fastmarkets RISI, Fastmarkets FOEX and Random Lengths.

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' 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 price reporting teams for both metals and forest products. We have offices in London, New York, Boston, San Francisco, Eugene, Charlottesville, Atlanta, Pittsburgh, Beijing, Shanghai, Hong Kong, Singapore, Melbourne, Sao Paolo, Mumbai, Brussels, Helsinki, Dnipro and Istanbul. The aim of this document is to provide a clear overview of Fastmarkets' methodology and specifications for the prices it assesses. If you have any questions, please contact Fastmarkets Editorial Director Perrine Faye at perrine.faye@fastmarkets.com for metals, or Fastmarkets Forest Products' Senior VP of Indices, Matt Graves, at mgraves@fastmarkets.com for forest products.

Price discovery and methodology

Methodology rationale

Fastmarkets produces independent, fair and representative price assessments and indices of metals and forest products prices on a daily, bi-weekly, weekly, monthly or quarterly basis. Fastmarkets' rationale for adopting the price-discovery process described in this methodology document is to produce consistent and representative indicators of value for specific markets over defined trading periods.

Assessment objective

The assessor's intended aim is to reflect Fastmarkets' assessment price definition:

'The prevailing level at which a commodity of stated specification has, or could be expected to have transacted over a defined period of time.'

We summarize this for effective use as the prevailing 'tradeable level' of the market.

Time window

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

Unless otherwise specified, the assessed timeframe will be the period since the conclusion of the previous price quotation. The usual data collection deadline for most Fastmarkets AMM prices is 4pm New York time on the day the price is scheduled to be updated, with prices to be published by 5pm. If, for instance, the data collection deadline for the last price assessment published by Fastmarkets was on Friday 4pm New York time and the cut-off time for our next assessment is due on the following Friday at 4pm New York time, we will accept price data for business conducted and reported to Fastmarkets between 4pm Friday and the following 4pm Friday. Where deemed appropriate for a particular market, Fastmarkets may specify a narrower window of time closer to the publication date where activity is given greater consideration in the price assessment, though this is stated in the specifications relating to those prices.

Data contribution

Fastmarkets reporters aim to collect data from a broad sample of market participants specifically involved in

the buying and selling of the metal, mineral or forest product of interest, with a good representation of both sides of the market, including producers and consumers, as well as traders and intermediaries.

Data is collected from industry participants directly involved in the relevant market primarily by telephone but also by email, digital messaging, face-to-face interaction or by direct submission. All data supplied to Fastmarkets is kept confidential and stored in our secure online pricing database system MInD (Market Information Database). Fastmarkets may sign a Data Submitter Agreement (DSA) with any data provider, if requested to do so, to maximize the number of data points collected for inclusion in the assessment process. Any data received subject to a DSA will be used in the pricing assessment but will not be commented on.

Market participants may contribute data following a review by Fastmarkets of their activities. The aim is to ensure that submitters have sufficient visibility and understanding of the market in question to be able to provide reliable price data. We expect that data submitters taking part in the pricing process are authorized to report market data on behalf of their organizations. Fastmarkets encourages organizations to submit all their pricing data, especially all the concluded transactions. Price reporters generally speak to, and collect data from, front office staff directly involved in the commercial activity of buying and selling the relevant product(s). Fastmarkets also welcomes organizations to submit transaction data from authorized back-office functions. Fastmarkets' [Data Submitter Policy](#) provides guidelines to ensure the high level of data quality and integrity we expect from contributing organizations providing pricing data. The policy can be found on Fastmarkets' website, or is available on request.

Depending on market liquidity, Fastmarkets reserves the right to also base its prices on bids, offers, deals heard and market participant indications of prevailing tradeable values or other indications such as trigger prices that might prompt a sale or purchase.

Price specifications and reference units

Fastmarkets 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 recognized metals, minerals and forest products markets.

Fastmarkets' 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 meet these specifications. Any data that does not fall within the stated ranges of the specification will not be eligible for consideration in the assessment.

Data analysis and producing the price assessment

Establishing a data hierarchy

To produce the price assessment, a consideration hierarchy is established based on an evaluation of first, the reporter's confidence in the data's reliability, and second, the significance of the data.

The confidence level, or trustworthiness, of a data point is generally based on the transparency of the activity whether it was reported by a party directly involved or was 'heard' activity, corroboration by other market participants and the level of detail provided by the data submitter, although there may be other contributory factors.

For indications of tradeable levels or other indication of willingness to sell or purchase, confidence may be determined based on the justification provided by the submitter, their visibility and activity level in the market, and their prior reliability. Factors that Fastmarkets may consider during times of low liquidity include, but are not limited to: market fundamentals such as changes in inventory levels, shipments, operating rates and export volumes; relative fundamentals of similar commodities in the same region; relative values of the same commodity in different regions; and changes in the value of the commodity's primary feedstock(s) or primary derived product(s).

The significance of a data point is determined based on its effectiveness in identifying the tradeable level of the market under assessment. Transactions are considered highest in the significance hierarchy, 'tight' bids/offers are of secondary importance, followed by data sources' own indications of a tradeable level when they have no business to report. Tight bids/offers are typically defined as those being within the range of transaction and/or indication data points, thereby helping narrow our assessment of the tradeable range. More speculative bids/offers, outside of the range of other data, would typically be of lowest significance. In some circumstances, firm bids higher than transactions or offers lower than transactions may be considered of high significance if deemed to demonstrate a clear directional change in market floor or ceiling levels.

The published assessment will typically be reflective of the highest-confidence and highest-significance data collected in that pricing session. In pricing sessions with little or no data of sufficient quality, extra caution will be applied and reporters may exercise their judgment to keep a price assessment unchanged as a fallback until activity can be confirmed with greater certainty.

All Fastmarkets 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 may typically be considered more significant than a smaller-volume transaction. But price reporters will also consider, for instance, normalizing or discarding a reported deal where it is suspected an abnormally large or small volume may have unduly distorted its price.

Fastmarkets will also compare the information received from a single source with the information provided by the same source in the previous pricing cycle. This way, if a source consistently gives lower or higher indications than the consensus, Fastmarkets can still use the data for directional context without it unduly influencing its assessment.

Normalization

Where necessary in certain assessments, data that falls within the stated specification ranges for consideration may be normalized to determine the equivalent price for the respective base specification if one exists. This may include, for instance, variances in material type or quality, delivery terms of location, payment terms or cargo size.

Data may be normalized to the base specification using

either a statistical or judgement based method. Where patterns can be established over time, such as for price differences between product qualities, data may be normalized using in-house developed models based on regression analysis of collected data. The analysis allows Fastmarkets to capture the value-in-use applied by the market to different qualities or terms and to normalize to a single base specification. Where a statistically derived adjustment factor is not possible for a particular variable, editorial judgment may be applied to normalize prices using third party data (such as broker rates for freight adjustments or exchange prices for QP adjustments), or by surveying market participants for an appropriate adjustment.

Where prices cannot be normalized with sufficient confidence or precision, such data may be discarded from the assessment. Fastmarkets' aim is to balance the requirement to keep assessments reflective of their base specifications with the need to source a sufficiently robust data set for consideration.

Minimum data threshold

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. In each pricing session, reporters aim to source data from a suitably diverse set of market participants. In the unlikely situation that more than half of the pricing data collected in a session is provided by a single source, the assessor may refer to data collected in the previous pricing session to avoid a dependency on a single entity providing an unacceptably significant (50% or more) proportion of data. In markets where, to satisfy their jurisdictional antitrust guidelines, certain companies require us to adhere to a maximum of 25% data concentration from a single entity, Fastmarkets will comply with this stricter threshold.

Criteria for discarding pricing data and the removal of outliers

Fastmarkets price assessments are intended to reflect the 'open and competitive' market level. Reporters therefore may apply expert judgment to exclude data deemed unrepresentative, questionable or unreliable prior to consideration in the final assessment. Data that falls outside of the respective assessment specifications, or which cannot be normalized to a base specification with sufficient confidence, is also discarded. Decisions to discard data points are recorded in the form of a written rationale in our internal pricing database, where they are reviewed and approved under the two-tier peer review process.

Data may be discarded as outliers based on the identification of external factors that may be distorting the price. Price-affecting side terms, inconsistencies in information reported, or suspected motivation to unfairly influence the price discovery process would typically be grounds for removal of data, as would activity not considered to have taken place at 'arm's length'. Outliers will be investigated; more detail may be requested to determine possible reasons behind an anomalous price, and efforts will be made to identify the counterparty to cross-verify information. Suspected attempts to influence the assessment unfairly may result in the data provider being warned or excluded. Fastmarkets reserves the right to see contracts and signed paperwork before inclusion of the data in the assessment. If this is refused, the data supplied may be excluded from the assessment process.

Data publication

Peer review process

All Fastmarkets' price assessments are set by a first reporter who covers that specific market, peer reviewed by a second reporter, and always signed-off by a senior reporter or editor prior to publication. This peer review process, which takes place in Fastmarkets' MInD system and is fully auditable, is in place to make sure that pricing procedures and methodologies are correctly and consistently applied and to ensure integrity and quality of the published prices. Relevant information, including all price inputs and editorial judgements, are securely retained in MInD for at least five years to maintain a full audit trail. Price reporters are formally trained in the price discovery process and must abide by a written Code of Conduct and Pricing Procedures.

For certain prices Fastmarkets also publishes pricing rationales to explain the assessment, describing why a particular price or range was determined based on the market information collected. These notes explain for instance whether any data has been excluded and why, information on the data collected and whether fallback procedures have been applied.

Publication

At the end of the peer review process, Fastmarkets MB and AMM publish their price assessments via MInD and on the Fastmarkets Dashboard and on product-specific websites and in the Price Book. Fastmarkets RISI, FOEX and Random Lengths publish their price assessments on the Intelligence Center, mobile app and in dedicated newsletters.

Most Fastmarkets assessments (aside from a small number of single-figure assessments) are quoted as ranges reflecting Fastmarkets' evaluation of the market's prevailing tradeable level over the observation window.

To enhance market transparency and to provide evidence of data inputs that support the price discovery process, Fastmarkets may publish trade logs in accordance with industry demand (while maintaining full counterparty confidentiality) detailing pricing data and volumes received from data contributors.

Fastmarkets' price assessments are published at the time and frequency stated under each individual specification. The pricing schedules vary according to markets and locations in which they are assessed. For more details on the pricing holiday calendar and alternative pricing dates for each assessment or index, refer to [Fastmarkets' Pricing Holidays](#) schedule on Fastmarkets.com or on the RISI, FOEX and Random Lengths websites.

Corrections and delays

If an assessment is published incorrectly, it will be rectified and republished as soon as possible. A pricing notice explaining the reasons for the correction will also be published promptly.

Fastmarkets uses several procedures and measures to avoid delays in the publication of its assessments. In the event of a delay, however, Fastmarkets will inform subscribers as soon as possible.

In the event of late publication, only data that has been received within the correct standard timeframe will be included in the assessment. No assessment will be amended due to the emergence of new data or market activity after the initial publication. Retrospective changes to the published values will only be made in cases of technical, administrative or interpretation error in line with [Fastmarkets' Correction Policy](#).

Methodology and price specification review process

Methodology review and pricing notices

Fastmarkets aims to continually develop and periodically review its methodologies in consultation with industry participants, with the objective to adopt product specifications, trading terms and conditions that reflect and are representative of typical working practices in the industries it serves.

Fastmarkets carries out a formal review and approval of its methodology and price specifications on an annual basis. The process is initiated by Fastmarkets publishing on its website an open consultation at least one month (or around 20 working days) before the annual methodology review is due, inviting market feedback over the duration of that period. The timeframe for the consultation and method of submission are both clearly stated.

Following a review of market participants' feedback, comments and suggestions, Fastmarkets concludes the consultation by publishing a notice stating whether or not any methodology changes are proposed. If suggested, changes are classified either as 'material' or 'immaterial'. Material changes are those that, once implemented, may result in fundamental changes to the published price. These include specification changes or structural changes to assessments. Immaterial changes are those that will not result in a different price level once they are implemented.

If a material change to the methodology is required, Fastmarkets includes in its pricing notice: the outline of the proposed change; the rationale or motivation for proposing such a change; and a proposed timetable for the date on which, if the change goes ahead, it would be implemented. If received feedback is considered insufficient to support a material change, Fastmarkets publishes a new notice extending the consultation and inviting comments on the new proposal.

A record of the methodology review is sent to the Risk & Compliance team. All comments received from the market are assumed to be confidential and are treated as such unless stated otherwise.

When Fastmarkets proposes a change to the methodology, it should be understood that no decision has yet been made and that the proposal to make a change should not automatically be understood as confirmation that the change will happen.

For prices subject to EU Benchmark Regulation (BMR), any change to the methodology requires approval from the Managing Director of our benchmark administrator, Fastmarkets Benchmark Administration Oy.

Outside of the formal methodology review process, editors may from time to time suggest changes or additions to reflect market developments. As with the formal review, changes to the existing methodology will either be classed as 'material' or 'immaterial'. The process for implementing the change will be the same as outlined above for formal reviews. The minimum duration of one month (or around 20 working days) for the consultation process normally provides market participants sufficient opportunity to analyze and comment on the impact of the proposed change.

For more details on the formal review of the methodology and the consultation process to propose changes to the methodology, refer to Fastmarkets' [Methodology Review and Change Consultation Process](#) available on the Fastmarkets website.

Queries and complaints

Fastmarkets encourages engagement from the market on its pricing principles and methodology. The company promotes understanding of its pricing procedures and is committed to responding to requests for further information and clarification on a timely basis.

There are multiple channels for interaction with the pricing team including email, telephone and instant messenger services.

If a subscriber has an issue with the published prices, then they may contact the pricing team. In the event that the response is not satisfactory the issue may be escalated to the internal compliance department. For more details refer to Fastmarkets' [Complaint Handling Policy](#) available on Fastmarkets' website.

Fastmarkets takes all queries and complaints seriously and will seek to provide an explanation of the prices wherever possible. It is important to note, however, that input data remain confidential and cannot be provided to third parties.

Become a contributor to the price discovery process

Fastmarkets continually seeks to increase the number of market sources willing to take part in the price discovery process. The main condition Fastmarkets requires from contributors is for them to be active participants in the relevant market being priced.

Fastmarkets' Data Submitter Policy provides guidelines defining the high level of data quality and integrity that Fastmarkets expects from contributing organizations providing pricing data. Market participants that wish to provide pricing data and be part of the price discovery process should first read the Data Submitter Policy available on the Fastmarkets website. The Policy is communicated to all data submitters at least on an annual basis.

All data sources are subject to review before their data submitted is fully taken into account in the pricing process. Our Contributor Approval Policy (CAP) requires this review or probation period to last no more than three months. The aim is to make sure that submitters are trustworthy and have sufficient visibility and understanding of the market to be able to provide viable price data.

Calculation of averages

Fastmarkets produces independent, fair and representative price assessments and indices for ferrous, non-ferrous and scrap metal prices on a daily, bi-weekly, weekly, bi-monthly or monthly basis. Fastmarkets calculates and publishes monthly averages based on these independent, proprietary assessments and indices by using simple averages.

The simple monthly averages 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 from the Americas prior to 2021 were calculated on a rolling-average basis. Rolling monthly averages were calculated by dividing the sum of the daily price quotations - including prices republished on non-assessment days - by the number of quotations published during the calendar month. Please contact pricing@fastmarkets.com, adding the subject heading 'Re: calculation of averages' for more information about Fastmarkets existing or legacy averages.

Dealer buying prices

Copper scrap

Assessment: **No1 heavy copper and wire**
Quality: Shall consist of clean, uncoated, unalloyed copper wire and cable, not smaller than No16 B & S wire gauge, free of burnt wire which is brittle. Hydraulically briquetted copper subject to agreement.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Berry

Assessment: **No2 heavy copper and wire**
Quality: Shall consist of miscellaneous, unalloyed copper wire having a nominal 96% copper content (min. 94%) as determined by electrolytic assay. Should be free of the following: Excessively leaded, tinned, soldered copper wire; brass and bronze wire; excessive oil content, iron, and non-metallics; copper wire from burning, containing insulation; hair wire; burnt wire which is brittle; and should be reasonably free of ash. Hydraulically briquetted copper subject to agreement.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Birch

Assessment: **Light copper**
Quality: Shall consist of miscellaneous, unalloyed copper scrap having a nominal 92% copper content (min. 88%) as determined by electrolytic assay and shall consist of sheet copper, gutters, downspouts, kettles, boilers, and similar scrap. Should be free of the following: Burnt hair wire; copper clad; plating racks; grindings; copper wire from burning, containing insulation; radiators and fire extinguishers; refrigerator units; electrotype shells; screening; excessively leaded, tinned, soldered scrap; brasses and bronzes; excessive oil, iron and non-metallics; and should be reasonably free of ash. Hydraulically briquetted copper subject to agreement. Any items excluded in this grade are also excluded in the higher grades above.

Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Dream

Assessment: **Red brass solids**
Quality: Shall consist of red brass scrap, valves, machinery bearings and other machinery parts, including miscellaneous castings made of copper, tin, zinc, and/or lead. Shall be free of semi-red brass castings (78% to 81% copper); railroad car boxes and other similar high-lead alloys; cocks and faucets; closed water meters; gates; pot pieces; ingots and burned brass; aluminium, silicon, and manganese bronzes; iron and non-metallics. No piece to measure more than 12 inches over any one part or weigh over 100 pounds. Heavier pieces acceptable upon mutual agreement between buyer and seller.

Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Monthly, 1st or following business day
Notes: ISRI Code: Ebony

Assessment: **Red brass turnings, borings**
Quality: Shall consist of turnings from red brass composition material and should be sold subject to sample or analysis. Also includes borings.
Unit: US cents per pound (Canadian cities prices are in local currency)
Location: US/Canada, specified city, delivered to yard
Publication: Twice monthly, 1st and 15th, or following business day

Assessment: **Yellow brass solids**
Quality: Shall consist of mixed yellow brass solids, including brass castings, rolled brass, rod brass, tubing and miscellaneous yellow brasses, including plated brass. Must be free of manganese-bronze, aluminium bronze, unsweated radiators or radiator parts, iron, and excessively dirty and corroded materials. Must also be free of any type of munitions including, but not limited to, bullet casings.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Honey

Assessment: **Mixed yellow brass turnings, borings**
Quality: Shall consist of yellow brass turnings, free of aluminium, manganese and composition turnings, not to contain over 3% of free iron, oil or other moisture; to be free of grindings and babbitts. To avoid dispute, to be sold subject to sample or analysis. Also includes borings.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Nomad

Assessment: **70-30 brass clips**
Quality: Shall consist of the cuttings of new unleaded yellow brass sheet or plate, to be clean and free from foreign substances and not to contain more than 10% of clean brass punching under ¼ inch. To be free of Muntz metal and naval brass.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Label

Assessment: **Auto radiators (unsweated)**
Quality: Shall consist of mixed automobile radiators, to be free of aluminium radiators, and iron-finned radiators. All radiators to be subject to deduction of actual iron. The tonnage specification should cover the gross weight of the radiators, unless otherwise specified.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Ocean

Aluminium scrap

Assessment: **Segregated low-copper alloy clips**
Quality: Shall consist of new, clean, uncoated and unpainted aluminium scrap of one specified aluminium alloy with a minimum thickness of .015 inch (.38 mm) and to be free of hair wire, wire screen, dirt and other nonmetallic items. Oil and grease not to total more than 1%. Also free from punchings less than ½ inch (1.27 cm) in size.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Tooth

Assessment: **Mixed low-copper alloy clips**
Quality: Shall consist of new, clean, uncoated and unpainted low copper aluminium scrap of two or more alloys with a minimum thickness of 0.015 inches (.38 mm) and to be free of 2000 and 7000 series, hair wire, wire screen, punchings less ½ inch (1.25 cm) diameter, dirt, and other non-metallic items. Grease and oil not to total more than 1%. Variations to this specification should be agreed upon prior to shipment between the buyer and seller.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Taboo

Assessment: **Mixed clips**
Quality: Shall consist of new, clean, uncoated and unpainted aluminium scrap of two or more alloys with a minimum thickness of .015 inch (.38 mm) and to be free of hair wire, wire screen, dirt and other non-metallic items. Oil and grease not to total more than 1%
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day

Assessment: **Aluminium borings, turnings, clean and dry**
Quality: Shall consist of clean, uncorroded aluminium borings and turnings of two or more alloys and subject to deductions for fines in excess of 3% through a 20 mesh screen and dirt, free iron, oil, moisture and all other non-metallic items. Material containing iron in excess of 10% and/or free magnesium or stainless steel or containing highly flammable cutting compounds will not constitute good delivery. To avoid dispute, material should be sold on basis of definite maximum zinc, tin and magnesium content.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Telic

Assessment: **Old aluminium, sheet and cast**
Quality: Shall consist of clean old alloy aluminium sheet of two or more alloys, free of foil, venetian blinds, castings, hair wire, screen wire, food or beverage containers, radiator shells, airplane sheet, bottle caps, plastic, dirt, and other non-metallic items. Oil and grease not to total more than 1%. Up to 10% Tale permitted.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Taint/Tabor

Assessment: **Used beverage cans, clean and dry**
Quality: Shall have a minimum density of 14 pounds per cubic foot (225 kg/m³), and a maximum density of 17 pounds per cubic foot (273 kg/m³) for unflattened UBC and 22 pounds per cubic foot (353 kg/m³) for flattened UBC. Size: Minimum 30 cubic feet (.85 m³), with bale range dimensions of 24" to 40" (61 to 132 cm) by 30 inch to 52 inch (76 to 132 cm) by 40 inch to 84 inch (102 to 213 cm). The only acceptable tying method shall be as follows: four to six 5/8 inch (1.6 cm) x .020 inch (5 mm) steel bands, or six to ten #13 gauge steel wires (aluminium bands or wires are acceptable in equivalent strength and number). Use of skids and/or support sheets of any material is not acceptable. Must be magnetically separated material and free of steel, lead, bottle caps, plastic cans and other plastic, glass, wood, dirt, grease, trash, and other foreign substances. Any free lead is basis for rejection. Any and all aluminium items, other than used beverage cans, are not acceptable. Variations to this specification should be agreed upon prior to shipment between the buyer and seller.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Taldon

Assessment: **Industrial castings**
Quality: Shall consist of all clean aluminium castings which may contain auto and airplane castings but no ingots, and to be free of iron, brass, dirt and other non-metallic items. Oil and grease not to total more than 2%.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Twice monthly, 1st and 15th, or following business day
Notes: ISRI Code: Tense

Lead Scrap

Assessment: **63S aluminium solids**
 Quality: Shall consist of new, clean, uncoated and unpainted aluminium scrap of two or more alloys with a minimum thickness of .015 inch (.38 mm) and to be free of hair wire, wire screen, dirt and other non-metallic items. Oil and grease not to total more than 1%. Also free from punchings less than ½ inch (1.27 cm) in size.
 Location: US/Canada, specified city, delivered to yard
 Unit: US cents per pound (Canadian cities prices are in local currency)
 Publication: Twice monthly, 1st and 15th, or following business day
 Notes: ISRI Code: Tough

Assessment: **Painted aluminium siding**
 Quality: Shall consist of clean, low copper aluminium siding scrap, painted one or two sides, free of plastic coating, iron, dirt, corrosion, fiber, foam, or fiberglass backing or other non-metallic items.
 Location: US/Canada, specified city, delivered to yard
 Unit: US cents per pound (Canadian cities prices are in local currency)
 Publication: Twice monthly, 1st and 15th, or following business day
 Notes: ISRI Code: Tale

Assessment: **Litho sheets**
 Quality: To consist of 1000 and/or 3000 series alloys, to be free of paper, plastic, excessively inked sheets, and any other contaminants. Minimum size of 3 inches (8 cm) in any direction.
 Location: US/Canada, specified city, delivered to yard
 Unit: US cents per pound (Canadian cities prices are in local currency)
 Publication: Twice monthly, 1st and 15th, or following business day
 Notes: ISRI Code: Tablet

Assessment: **Heavy soft lead**
 Location: US/Canada, specified city, delivered to yard
 Unit: US cents per pound (Canadian cities prices are in local currency)
 Quality: Shall consist of clean soft scrap lead, free of other materials such as drosses, battery plates, lead covered cable, hard lead, collapsible tubes, foil, type metals, aluminium, zinc, iron and brass fittings, dirty chemical lead and radioactive materials. Review packaging specifications and regulatory status pertaining to shipping with buyer prior to sale.
 Publication: Monthly, 1st or following business day
 Notes: ISRI Code: Racks

Assessment: **Undrained, whole old batteries**
 Quality: Consisting of SLI (starting, lighting & ignition), automotive, truck, 8-D and commercial golf cart and marine-type batteries. Cases to be either plastic or rubber and to be complete. Non-lead (i.e., ni-cad, ni-fe, carbonaire, etc.) not acceptable. Other types i.e. aircraft (aluminium) gel-cel, lawnmower, etc., and partial, cracked or broken batteries or batteries without caps and the amount of liquid content and any variations to the specification subject to special agreement. Review packaging specifications and regulatory status pertaining to shipping with buyer prior to sale.
 Location: US/Canada, specified city, delivered to yard
 Unit: US cents per pound (Canadian cities prices are in local currency)
 Publication: Monthly, 1st or following business day
 Notes: ISRI Code: Rink

Zinc Scrap

Assessment: **Old zinc scrap**
Quality: Shall consist of clean dry scrap zinc, such as sheets, jar lids, clean unalloyed castings and anti-corrosion plates. Borings and turnings are not acceptable. Material must not be excessively corroded or oxidized. All foreign attachments and extraneous materials are deductible.
Location: US/Canada, specified city, delivered to yard
Unit: US cents per pound (Canadian cities prices are in local currency)
Publication: Monthly, 1st or following business day
Notes: ISRI Code: Score

Nickel Scrap

Assessment: **Nickel clips and solids**
Quality: Common forms include new sheet, plate, bar, tube, and other miscellaneous solids. Free of foreign attachments and other contamination. Nominal chemistry: Ni 99% plus
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday
Notes: ISRI Code: Aroma

Assessment: **Nickel Turnings**
Quality: Turnings and shavings from bar products. Nominal chemistry: Ni 99% on a dry basis after yield loss
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday

Assessment: **R Monel Solids**
Quality: R-405 Monel is a nickel-copper alloy and a free machining grade of Monel 400. Must be clean and free of all attachments and contamination. Nominal chemistry: Ni 66% Cu 31.5%
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday
Notes: ISRI Code: Hitch

Assessment: **Monel Turnings**
Quality: Mixed Monel turnings containing a minimum of 60% nickel content dry, on a yielded basis
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday
Notes: ISRI Code: Lemur

Assessment: **K Monel Solids**
Quality: K Monel (K 500) has added strength and hardness with the addition of aluminium and titanium. Applications include pump shafts, impellers, oil well parts, and pumps in marine service Nominal chemistry: Ni 65% Cu 29.5%
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday
Notes: ISRI Code: Indian

Assessment: **Inconel 600 Solids**
Quality: Inconel is a registered trademark superalloy containing a minimum equal to or greater than 72% nickel. High temperature and extreme corrosion resistance applications Nominal chemistry: Ni 76% Cr 15.5% Fe 8.0%
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday

Assessment: **309 Stainless Steel Solids**
Quality: This higher nickel grade stainless is used in many heat treat applications. The higher nickel and higher chromium values provide good resistance to higher temperatures Nominal analysis: Ni 12% Cr 25% Fe Balance. Industry marking: RA 309, HH
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday

Assessment: **310 Stainless Steel Solids**
Quality: The 310 stainless steel grade is a medium high nickel grade used in many heat-treat applications with high temperatures and higher corrosion resistance qualities Nominal analysis: Ni 20% Cr 25% Fe Balance. Industry marking: RA 310, HK 40
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday

Assessment: **330 Stainless Steel Solids**
Quality: This grade is used extensively in the heat treat industry designed for high-temperature applications Nominal analysis: Ni 35% Cr 15% Fe Balance. Industry Marking: RA 330, HT
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday

Assessment: **Invar Solids**
Quality: Invar and Invar 36 is a nickel-iron alloy that retains good strength and toughness. Applications include laser components and production process is similar to austenitic stainless steel grades Nominal analysis: Ni 36% Fe Balance
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday

Assessment: **Inconel 601 Solids**
Quality: This alloy has high temperature strength, retains ductility, and has excellent corrosion resistance Nominal analysis: Ni 60.5% Cr 23% Fe 14% Other Balance
Location: US, specified city, delivered to destination
Unit: US cents per pound
Publication: Every two weeks, Wednesday

Assessment: **17-4PH Solids**
 Quality: 17-4PH is a martensitic grade that is ductile and tough. Some common applications are golf clubs, firearms, pump parts, and chemical processing equipment
 Location: US, specified city, delivered to destination
 Unit: US cents per pound
 Publication: Every two weeks, Wednesday

Dealer selling,
 consumer buying
 prices

Secondary smelters aluminium scrap

MB-AL-0023 **Aluminum scrap mixed low copper clips, buying price, delivered Midwest secondary smelters, US cents/lb**

Quality: Shall consist of new, clean, uncoated and unpainted low copper aluminium scrap of two or more alloys with a minimum thickness of 0.015 inches (.38 mm) and to be free of 2000 and 7000 series, hair wire, wire screen, punchings less ½ inch (1.25 cm) diameter, dirt, and other non-metallic items. Grease and oil not to total more than 1%. Variations to this specification should be agreed upon prior to shipment between the buyer and seller.

Location: US Midwest, delivered to smelters
 Unit: US cents per pound
 Publication: Weekly, Thursday
 Notes: ISRI Code: Taboo

MB-AL-0024 **Aluminum scrap mixed high copper clips, buying price, delivered Midwest secondary smelters, US cents/lb**

Quality: Shall consist of new, clean, uncoated and unpainted aluminium scrap of two or more alloys in 2000-series with a minimum thickness of .015 inch (.38 mm) and to be free of hair wire, wire screen, dirt and other non-metallic items. Oil and grease not to total more than 1%

Location: US Midwest, delivered to smelters
 Unit: US cents per pound
 Publication: Weekly, Thursday
 Notes: ISRI Code: Score

MB-AL-0025 Aluminum scrap mixed high zinc clips buying price, delivered Midwest secondary smelters, US cents/lb

Quality: Shall consist of new, clean, uncoated and unpainted aluminium scrap of two or more alloys in 7000-series with a minimum thickness of .015 inch (.38 mm) and to be free of hair wire, wire screen, dirt and other non-metallic items. Oil and grease not to total more than 1%

Location: US Midwest, delivered to smelters

Unit: US cents per pound

Publication: Weekly, Thursday

MB-AL-0026 Aluminum scrap 1-1-3 sows buying price, delivered Midwest secondary smelters, US cents/lb

Quality: Shall consist of aluminium scrap which has been sweated or melted into a form or shape such as an ingot, sow or slab for convenience in shipping; to be free from corrosion, dross or any non-aluminium inclusions. Should be sold subject to sample or analysis.

Location: US Midwest, delivered to smelters

Unit: US cents per pound

Publication: Weekly, Thursday

Notes: ISRI Code: Throb

MB-AL-0027 Aluminum scrap siding buying price, delivered Midwest secondary smelters, US cents/lb

Quality: Shall consist of clean, low copper aluminium siding scrap, painted one or two sides, free of plastic coating, iron, dirt, corrosion, fiber, foam, or fiberglass backing or other non-metallic items.

Location: US Midwest, delivered to smelters

Unit: US cents per pound

Publication: Weekly, Thursday

Notes: ISRI Code: Tale

MB-AL-0028 Aluminum scrap mixed clips buying price, delivered to Midwest secondary smelters, US cents/lb

Quality: Shall consist of new, clean, uncoated and unpainted aluminium scrap of two or more alloys with a minimum thickness of .015 inch (.38 mm) and to be free of hair wire, wire screen, dirt and other non-metallic items. Oil and grease not to total more than 1%

Location: US Midwest, delivered to smelters

Unit: US cents per pound

Publication: Weekly, Thursday

MB-AL-0029 Aluminum scrap old sheet buying price, delivered to Midwest secondary smelters, US cents/lb

Quality: Shall consist of clean old alloy aluminium sheet of two or more alloys, free of foil, venetian blinds, castings, hair wire, screen wire, food or beverage containers, radiator shells, airplane sheet, bottle caps, plastic, dirt, and other non-metallic items. Oil and grease not to total more than 1%. Up to 10% Tale permitted.

Location: US Midwest, delivered to smelters

Unit: US cents per pound

Publication: Weekly, Thursday

Notes: ISRI Code: Taint/Tabor

MB-AL-0030 Aluminum scrap old cast buying price, delivered to Midwest secondary smelters, US cents/lb

Quality: Aluminium castings for consumption by secondary aluminium smelters, crushed cast, shreddable, less than 1% magnesium and zinc, low iron, low contamination; minimum recovery rate 92%

Location: US Midwest, delivered to smelters

Unit: US cents per pound

Publication: Twice a week, every Monday and Thursday

MB-AL-0031 **Aluminum scrap turnings clean dry high grade buying price, delivered to Midwest secondary smelters, US cents/lb**

Quality: Zinc max. 1.5%. Shall consist of clean, uncorroded aluminium borings and turnings of two or more alloys and subject to deductions for fines in excess of 3% through a 20 mesh screen and dirt, free iron, oil, moisture and all other non-metallic items. Material containing iron in excess of 10% and/or free magnesium or stainless steel or containing highly flammable cutting compounds will not constitute good delivery. To avoid dispute, material should be sold on basis of definite maximum zinc, tin and magnesium content.

Location: US Midwest, delivered to smelters
 Unit: US cents per pound
 Publication: Weekly, Thursday

MB-AL-0032 **Aluminum scrap turnings clean dry mixed grade (max 5% Zn) buying price, delivered to Midwest secondary smelters, US cents/lb**

Quality: Zinc max. 5%. Shall consist of clean, uncorroded aluminium borings and turnings of two or more alloys and subject to deductions for fines in excess of 3% through a 20 mesh screen and dirt, free iron, oil, moisture and all other non-metallic items. Material containing iron in excess of 10% and/or free magnesium or stainless steel or containing highly flammable cutting compounds will not constitute good delivery. To avoid dispute, material should be sold on basis of definite maximum zinc, tin and magnesium content.

Location: US Midwest, delivered to smelters
 Unit: US cents per pound
 Publication: Weekly, Thursday

MB-AL-0033 **Aluminum scrap aluminium-copper radiators buying price, delivered to Midwest secondary smelters, US cents/lb**

Quality: Shall consist of clean aluminium and copper radiators, and/or aluminium fins on copper tubing, free of brass tubing, iron and other foreign contamination.

Location: US Midwest, delivered to smelters
 Unit: US cents per pound
 Publication: Weekly, Thursday

MB-AL-0034 **Aluminum scrap non-ferrous auto shred (90% Al) buying price, delivered to Midwest secondary smelters, US cents/lb**

Quality: Derived from wet or dry media separation device, the material must be dry and not contain more than 1% maximum free zinc, 1% maximum free magnesium, and 1% maximum of analytical iron. Not to contain more than a total 2% maximum of non-metallics, of which no more than 1% shall be rubber and plastics. To be free of excessively oxidized material, air bag canisters, or any sealed or pressurized items. Any variation to be sold by special arrangement between buyer and seller.

Location: US Midwest, delivered to smelters
 Unit: US cents per pound
 Publication: Weekly, Thursday
 Notes: ISRI Code: Twitch

MB-AL-0375 **Zorba min 95/3 min, basis delivered US facility, US cents/lb**

Quality: Zorba 95% metallic content; 3% copper and brass

Quantity: Truckload (around 44,000 lb)

Location: US Midwest, delivered to smelters
 Unit: US cents per pound
 Publication: Weekly, Thursday

MB-AL-0035

Aluminum scrap used beverage cans, domestic aluminum producer buying price, fob shipping point US, US cents/lb

Quality:

Shall have a minimum density of 14 pounds per cubic foot (225 kg/m³), and a maximum density of 17 pounds per cubic foot (273 kg/m³) for unflattened UBC and 22 pounds per cubic foot (353 kg/m³) for flattened UBC. Size: Minimum 30 cubic feet (.85 m³), with bale range dimensions of 24" to 40" (61 to 132 cm) by 30" to 52" (76 to 132 cm) by 40" to 84"(102 to 213 cm). The only acceptable tying method shall be as follows: four to six 5/8" (1.6 cm) x .020" (5 mm) steel bands, or six to ten #13 gauge steel wires (aluminum bands or wires are acceptable in equivalent strength and number). Use of skids and/ or support sheets of any material is not acceptable. Must be magnetically separated material and free of steel, lead, bottle caps, plastic cans and other plastic, glass, wood, dirt, grease, trash, and other foreign substances. Any free lead is basis for rejection. Any and all aluminium items, other than used beverage cans, are not acceptable. Variations to this specification should be agreed upon prior to shipment between the buyer and seller.

Location:

f.o.b. shipping point

Unit:

US cents per pound

Publication:

Weekly, Thursday

Notes:

ISRI Code: Taldon

Mills, speciality consumer buying prices

Low copper

MB-AL-0036

Aluminum scrap segregated low copper alloy clips 5052, mills specialty consumers' buying price, fob shipping point US, US cents/lb

Quality:

5052 alloy scrap only. Shall consist of new, clean, uncoated and unpainted aluminium scrap of one specified aluminium alloy with a minimum thickness of .015 inch (.38 mm) and to be free of hair wire, wire screen, dirt and other nonmetallic items. Oil and grease not to total more than 1%. Also free from punchings less than ½ inch (1.27 cm) in size.

Location:

Delivered

Unit:

US cents per pound

Publication:

Weekly, Thursday

Notes:

ISRI Code: Tooth

MB-AL-0037

Aluminum scrap segregated low copper alloy clips 3105, mills specialty consumers' buying price, delivered consumer US, US cents/lb

Quality:

3105 alloy scrap only. Shall consist of new, clean, uncoated and unpainted aluminium scrap of one specified aluminium alloy with a minimum thickness of .015 inch (.38 mm) and to be free of hair wire, wire screen, dirt and other nonmetallic items. Oil and grease not to total more than 1%. Also free from punchings less than ½ inch (1.27 cm) in size.

Location:

Delivered

Unit:

US cents per pound

Publication:

Weekly, Thursday

Notes:

ISRI Code: Tooth

MB-AL-0038 **Aluminum scrap mixed low copper clips, specialty consumers' buying price, delivered consumer US, US cents/lb**

Quality: Shall consist of new, clean, uncoated and unpainted aluminium scrap of two or more alloys with a minimum thickness of .015 inch (.38 mm) and to be free of hair wire, wire screen, dirt and other non-metallic items. Oil and grease not to total more than 1%. Also free from punchings less than ½ inch (1.27 cm) in size.

Location: Delivered

Unit: US cents per pound

Publication: Twice a week, every Monday and Thursday

Notes: ISRI Code: Tough

MB-AL-0039 **Aluminum scrap painted siding, specialty consumers' buying price, delivered consumer US, US cents/lb**

Quality: Shall consist of new clean, low copper aluminium siding scrap, painted one side ONLY, free of iron, dirt, corrosion, fiber backing, plastisol and any other foreign contamination.

Location: Delivered

Unit: US cents per pound

Publication: Weekly, Thursday

Brass mill copper scrap

MB-CU-0302 **Copper scrap No1 copper, buying price, delivered to brass mill US, US cents/lb**

Quality: Shall consist of No1 bare, uncoated, unalloyed copper wire, not smaller than No16 B & S wire gauge. Green copper wire and hydraulically compacted material to be subject to agreement between buyer and seller.

Location: Delivered

Unit: US cents per pound

Publication: Daily

Notes: ISRI Code: Barley

Refiners' copper scrap

MB-CU-0303 **Copper scrap No1 copper, buying price, delivered to refiners, US cents/lb**

Quality: Shall consist of clean, untinned, uncoated, unalloyed copper wire and cable, not smaller than No16 B & S wire gauge, free of burnt wire which is brittle. Hydraulically briquetted copper subject to agreement.

Location: Delivered

Unit: US cents per pound

Publication: Daily

Notes: ISRI Code: Berry

MB-CU-0304 **Copper scrap No2 copper, buying price, delivered to refiners, US cents/lb**

Quality: Shall consist of miscellaneous, unalloyed copper wire having a nominal 96% copper content (min. 94%) as determined by electrolytic assay. Should be free of the following: Excessively leaded, tinned, soldered copper wire; brass and bronze wire; excessive oil content, iron, and non-metallics; copper wire from burning, containing insulation; hair wire; burnt wire which is brittle; and should be reasonably free of ash. Hydraulically briquetted copper subject to agreement.

Location: Delivered

Unit: US cents per pound

Publication: Daily

Notes: ISRI Code: Birch

Brass Ingot Makers' Copper Scrap

MB-CU-0305 **Copper scrap No1 bare bright, buying price, delivered to brass ingot makers, US cents/lb**

Quality: Shall consist of No1 bare, uncoated, unalloyed copper wire, not smaller than No16 B & S wire gauge. Green copper wire and hydraulically compacted material to be subject to agreement between buyer and seller.

Location: Delivered buyers' works
 Unit: US cents per pound
 Publication: Daily
 Notes: ISRI Code: Barley

MB-CU-0306 **Copper scrap No1 copper, buying price, delivered to brass ingot makers, US cents/lb**

Quality: Shall consist of clean, unalloyed, uncoated copper clippings, punchings, bus bars, commutator segments, and wire not less than 1/16 of an inch thick, free of burnt wire which is brittle; but may include clean copper tubing. Hydraulically briquetted copper subject to agreement.

Location: Delivered buyers' works
 Unit: US cents per pound
 Publication: Daily
 Notes: ISRI Code: Candy

MB-CU-0307 **Copper scrap No2 copper, buying price, delivered to brass ingot makers, US cents/lb**

Quality: Shall consist of miscellaneous, unalloyed copper wire having a nominal 96% copper content (min. 94%) as determined by electrolytic assay. Should be free of the following: Excessively leaded, tinned, soldered copper wire; brass and bronze wire; excessive oil content, iron, and non-metallics; copper wire from burning, containing insulation; hair wire; burnt wire which is brittle; and should be reasonably free of ash. Hydraulically briquetted copper subject to agreement.

Location: Delivered buyers' works
 Unit: US cents per pound
 Publication: Daily
 Notes: ISRI Code: Birch

MB-CU-0308 **Copper scrap light copper, buying price, delivered to brass ingot makers, US cents/lb**

Quality: Shall consist of miscellaneous, unalloyed copper scrap having a nominal 92% copper content (min. 88%) as determined by electrolytic assay and shall consist of sheet copper, gutters, downspouts, kettles, boilers, and similar scrap. Should be free of the following: Burnt hair wire; copper clad; plating racks; grindings; copper wire from burning, containing insulation; radiators and fire extinguishers; refrigerator units; electrotype shells; screening; excessively leaded, tinned, soldered scrap; brasses and bronzes; excessive oil, iron and non-metallics; and should be reasonably free of ash. Hydraulically briquetted copper subject to agreement. Any items excluded in this grade are also excluded in the higher grades above.

Location: Delivered buyers' works
 Unit: US cents per pound
 Publication: Daily

MB-CU-0298 **Copper scrap No1 comp solids, buying price, delivered to brass ingot makers, US cents/lb**

Quality: Shall consist of red brass scrap, valves, machinery bearings and other machinery parts, including miscellaneous castings made of copper, tin, zinc, and/or lead. Shall be free of semi-red brass castings (78% to 81% copper); railroad car boxes and other similar high-lead alloys; cocks and faucets; closed water meters; gates; pot pieces; ingots and burned brass; aluminium, silicon, and manganese bronzes; iron and non-metallics. No piece to measure more than 12 inches over any one part or weigh over 100 lbs. Heavier pieces acceptable upon mutual agreement between buyer and seller.

Location: Delivered buyers' works
 Unit: US cents per pound
 Publication: Weekly, Wednesday
 Notes: ISRI Code: Ebony

MB-CU-0299 **Copper scrap comp borings, turnings, buying price, delivered to brass ingot makers, US cents/lb**

Quality: Shall consist of turnings from red brass composition material and should be sold subject to sample or analysis.

Location: Delivered buyers' works
 Unit: US cents per pound
 Publication: Weekly, Wednesday
 Notes: ISRI Code: Enerv

MB-CU-0300 **Copper scrap radiators, buying price, delivered to brass ingot makers, US cents/lb**

Quality: Shall consist of mixed automobile radiators, to be free of aluminium radiators, and iron-finned radiators. All radiators to be subject to deduction of actual iron. The tonnage specification should cover the gross weight of the radiators, unless otherwise specified.

Location: Delivered buyers' works
 Unit: US cents per pound
 Publication: Weekly, Wednesday
 Notes: ISRI Code: Ocean

MB-CU-0301 **Copper scrap yellow brass solids, buying price, delivered to brass ingot makers, US cents/lb**

Quality: Shall consist of mixed yellow brass solids, including brass castings, rolled brass, rod brass, tubing and miscellaneous yellow brasses, including plated brass. Must be free of manganese-bronze, aluminium bronze, unsweated radiators or radiator parts, iron, and excessively dirty and corroded materials. Must also be free of any type of munitions including, but not limited to, bullet casings.

Location: Delivered buyers' works
 Unit: US cents per pound
 Publication: Weekly, Wednesday
 Notes: ISRI Code: Honey

Smelters' Lead Scrap

MB-PB-0004 **Lead scrap buying price, delivered smelters US, \$/cwt**

Quality: Shall consist of clean lead solids, free of other materials, such as drosses, battery plates, lead covered cable, collapsible tubes, type metals, aluminium, zinc, iron and brass fittings, dirty chemical lead and radioactive materials. Review packaging specifications and regulatory status pertaining to shipping with buyer prior to sale.

Location: Delivered to smelter
 Unit: US dollars per hundredweight
 Publication: Bi-weekly, Tuesday
 Notes: ISRI Code: Radio

Smelters' Zinc Scrap

MB-PB-0003 **Lead scrap remelt buying price, delivered smelters US, \$/cwt**

Quality: Shall consist of clean soft scrap lead, free of other materials such as drosses, battery plates, lead covered cable, hard lead, collapsible tubes, foil, type metals, aluminium, zinc, iron and brass fittings, dirty chemical lead and radioactive materials. Review packaging specifications and regulatory status pertaining to shipping with buyer prior to sale.

Location: Delivered to smelter

Unit: US dollars per hundredweight

Publication: Bi-weekly, Tuesday

Notes: ISRI Code: Racks

MB-PB-0005 **Lead scrap whole batteries buying price, delivered smelters US, \$/cwt**

Quality: Consisting of SLI (starting, lighting & ignition), automotive, truck, 8-D and commercial golf cart and marine-type batteries. Cases to be either plastic or rubber and to be complete. Non-lead (i.e., ni-cad, ni-fe, carbonaire, etc.) not acceptable. Other types i.e. aircraft (aluminium) gel-cel, lawnmower, etc., and partial, cracked or broken batteries or batteries without caps and the amount of liquid content and any variations to the specification subject to special agreement. Review packaging specifications and regulatory status pertaining to shipping with buyer prior to sale.

Location: Delivered to smelter

Unit: US dollars per hundredweight

Publication: Bi-weekly, Tuesday

Notes: ISRI Code: Rink

MB-PB-0002 **Lead scrap cable buying price, delivered smelters US, \$/cwt**

Quality: Free of armored covered cable, and foreign material.

Location: Delivered to smelter

Unit: US dollars per hundredweight

Publication: Bi-weekly, Tuesday

Notes: ISRI Code: Relay

MB-ZN-0003 **Zinc scrap new zinc clippings buying price, delivered smelters US, US cents/lb**

Quality: Shall consist of any new pure zinc sheets or stampings free from corrosion. To contain no foreign material or attachments. Printers zinc, such as engravers zinc, lithograph sheets and addressograph plates subject to special arrangements. Printers zinc to be free of routings.

Location: Delivered

Unit: US cents per pound

Publication: Bi-weekly, Tuesday

Notes: ISRI Code: Screen

MB-ZN-0004 **Zinc scrap old zinc (clean), buying price, delivered smelters US, US cents/lb**

Quality: Shall consist of clean dry scrap zinc, such as sheets, jar lids, clean unalloyed castings and anti-corrosion plates. Borings and turnings are not acceptable. Material must not be excessively corroded or oxidized. All foreign attachments and extraneous materials are deductible.

Location: Delivered

Unit: US cents per pound

Publication: Bi-weekly, Tuesday

Notes: ISRI Code: Score

MB-ZN-0002 **Zinc scrap galvanizers dross buying price, delivered smelters US, US cents/lb**

Quality: Shall consist of unsweated zinc dross removed from the top of a continuous line galvanizing bath, in slab form not weighing in excess of 100 pounds each, with a minimum zinc content of 90%. Heavier pieces acceptable upon mutual agreement between buyer and seller. Shall be free of skimmings. Broken pieces under 2 inches in diameter shall not exceed 10% of the weight of each shipment.

Location: Delivered

Unit: US cents per pound

Publication: Bi-weekly, Tuesday

Notes: ISRI Code: Seal

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