

CRU Prices

Lead

Methodology and
Definitions Guide

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Methodology and Definitions Guide – Lead	3
1 <i>Scope</i>	3
2 <i>Methodology</i>	3
3 <i>Definitions</i>	5
<i>Lead premia</i>	5
Europe – Ex Works (discontinued)	5
USA – Delivered	5
<i>Lead scrap prices</i>	5
Europe – Picked up	5
UK – Picked up	5
USA – Picked up	6

Methodology and Definitions Guide – Lead

1 Scope

This guide covers lead product prices in all geographical markets and should be read in conjunction with the *CRU Group Compliance Framework and Methodology Guide*. It details commodity-specific methodology which have precedence, with all other aspects covered by the Group methodology guide.

2 Methodology

Lead

The CRU lead premia is a monthly assessment (over the LME cash price for lead) representing physical spot transaction and/or prices widely quoted in the spot market.

The CRU lead scrap price is a monthly assessment of the price paid (at the point of arising) representing physical transaction and/or prices widely quoted in the scrap market.

Data are gathered from Data Providers by email (a submission template may be used), telephone, private one-to-one instant messenger services or other private means of communication.

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

Data providers

CRU lead assessments are based on regular contact with a wide network of market participants including producers, traders and consumers. This network is frequently reviewed to ensure a balance of buyers and sellers. A Non-Disclosure Agreement may be supplied as required.

Above and beyond the criteria stipulated in Section 3.4 of the CRU Group Compliance Framework and Methodology Guide, each data provider must exist on a list of approved data providers before their data can be considered for admission into published prices.

Data submitted and submission process

Transaction data is prioritised as an input and to that extent the hierarchy of acceptable price types follows that described in Section 3.1 of the Group Compliance Framework and Methodology Guide.

In the absence of actual transaction data, the following types of price data may be submitted in the same period: a firm/indicative offer or bid; opinion of the prevailing market price.

Data Providers must supply premia/scrap price data relating to spot business in the month by 23:59 GMT on the Tuesday prior to the publication of the Lead Monitor each month for their data to be considered.

Data Providers should provide accurate premia/scrap price data to CRU detailing date, type of price data and quantity, normalised for delivery basis, pricing period and payment terms to CRU's definitions below.

Final Premium Assessment

Normalisation

The final lead premium or lead scrap price is assessed based on all data received by all permissible means. Data which meet the precise definitions below are eligible for admission without any transformation. Data which do not will be subject to a normalisation process in order to adjust for delivery basis etc.

Exclusion of outliers

An analyst may use expert judgement in the exclusion of a data point as an input to the calculation of the final price. In doing so they would consider: the range and distribution of data collected in the same timeframe from other data providers; previous data received from the CRU Prices | Methodology and Definitions Guide – LEAD

same data provider; non-price information received from the data provider; market state and direction information from any other source. Inclusion or exclusion of input data in the final price is explicit and recorded.

Price data will be weighted as follows:

Transaction data (sales or purchase): the midpoint of the average of sales and the average of purchase data to be given a 50% weighting.

Firm and indicative bid/offer data: the midpoint of the average of bids and the average of offers to be given a 25% weighting. Opinion to be given a 25% weighting.

If CRU receives only one of the above price data types, that will be given a 100% weight.

If CRU receives two of the above price data types, a weighting of 75% will be given to transaction prices and 25% to the other; if no transaction prices are received, bid/offer prices will receive a 75% weighting and 25% to opinion.

If there are no qualifying data points, the prior published value will be rolled over to form the current period published value.

Expert judgement

Expert judgement may apply to decisions on whether price data submitted relate to actual deals concluded, if normalisation of price data submitted is required and the means of any normalisation, and the inclusion of a data point in calculation of the final price.

An analyst will consult with one or more colleagues before any application of expert judgement if in any doubt or where collective input would improve the quality of a judgement.

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

Verification

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

Final publication

CRU lead premia and lead scrap prices are published monthly in the *CRU Lead Monitor*, associated *Lead Prices Basket* and via FTP data feeds.

Deactivated premia, prices and charges

A lead premium and lead scrap price assessment will remain active as long as there are sufficient buyers, sellers and/or traders for the analyst to make an accurate assessment. If the quotation suffers from limited transparency or if business dynamics change, it may be deactivated following market consultation. Its history will still be available, but no further information will be collected for that assessment from the time it is deactivated.

If you have comments or questions about the methodology used by CRU to assess prices, or questions about particular prices, please email neil.hawkes@crugroup.com or customer.services@crugroup.com.

To find out more about CRU's pricing products and services go to www.crugroup.com.

3 Definitions

Lead premia

Europe – Ex Works (discontinued)

Material:	Secondary soft lead (99.97% lead purity, LME standard specification)
Price basis:	Ex works
Credit/payment terms:	Prompt net cash
Packaging:	Typically 1 tonne bundles
Loading location:	Northern Europe
Type:	Spot
Currency:	Euro
Weight unit:	Metric tonne
Size:	Varies, typically trades of 100-500t
Delivery:	Prompt business for delivery within month
Pricing:	Basis the average monthly official LME cash settlement price, plus premium
Duties/tariffs:	2.5% import duty on material of non-EU origin
Frequency:	Monthly

USA – Delivered

Material:	Secondary soft lead (99.97% lead purity, LME standard specification)
Price basis:	Mid-West delivered
Credit/payment terms:	Prompt net cash
Packaging:	Typically 1 tonne bundles
Loading location:	Mid-West USA
Type:	Spot
Currency:	US dollar
Weight unit:	Imperial pound
Size:	Varies, typically trades of 100-500t
Timing:	Prompt business for delivery within month
Pricing:	Basis the average monthly official LME cash settlement price, plus premium
Duties/tariffs:	1.5% import duty on material of non-USMCA origin
Frequency:	Monthly

Lead scrap prices

Europe – Picked up

Grade:	Whole undrained (wet) used lead-acid automotive battery (ULAB)
Price basis:	Picked up (equivalent to ex-works scrap seller to smelter)
Credit/payment terms:	Cash upon arrival at smelter gates or up to 30 days
Packaging:	Bulk trailers/skips or uniformly palletized to EU standards
Loading location:	Western mainland Europe
Type:	Spot
Currency:	Euro
Weight unit:	Metric tonne
Size:	Typically quoted by 'truckload', which equates to 20 tonnes of ULABs. Some merchants deal in larger quantities of 100-500 tonnes of ULABs
Delivery:	Prompt business for picking up within 1-2 weeks. Larger quantities of 100-500 tonnes within 1 month
Pricing:	Basis the gross weight of whole undrained (wet) used lead-acid automotive battery
Duties/tariffs:	None
Frequency:	Monthly

UK – Picked up

Grade:	Whole undrained (wet) used lead-acid automotive battery (ULAB)
Price basis:	Picked up (equivalent to ex-works scrap seller to smelter)
Credit/payment terms:	Cash upon arrival at smelter gates or up to 30 days

Packaging:	Bulk trailers/skips or uniformly palletized to EU standards
Loading location:	UK
Type:	Spot
Currency:	British pound
Weight unit:	Metric tonne
Size:	Typially quoted by 'truckload', which equates to 20 tonnes of ULABs. Some merchants deal in larger quantities of 100-500 tonnes of ULABs
Delivery:	Prompt business for picking up within 1-2 weeks. Larger quantities of 100-500 tonnes within 1 month
Pricing:	Basis the gross weight of whole undrained (wet) used lead-acid automotive battery
Duties/tariffs:	None
Frequency:	Monthly

USA – Picked up

Grade:	Whole undrained (wet) used lead-acid automotive battery (ULAB)
Price basis:	Picked up (equivalent to ex-works scrap seller to smelter)
Credit/payment terms:	Cash upon arrival at smelter gates or up to 30 days
Packaging:	Uniformly palletized to BCI standards
Loading location:	Mid-West USA
Type:	Spot
Currency:	US dollar
Weight unit:	Imperial pound
Size:	Typially quoted by 'truckload', which equates to 22 short tons (20 metric tonnes) of ULABs.
Delivery:	Prompt business for picking up within 1-2 weeks.
Pricing:	Basis the gross weight of whole undrained (wet) used lead-acid automotive battery
Duties/tariffs:	None
Frequency:	Monthly