

Chemicals Pricing Data Methodology

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Introduction

Intratec's goal is to provide reliable, distortion-free pricing data that can serve as representative indicators of commodity market values. A variety of product specifications, as reflected by that data, and the processes and standards to which Intratec adheres in its collection as well as methods utilized to determine final values prior to publication can be seen in methodology documentation. All of this is aimed at insuring the highest quality of pricing data, which is essential to the maintenance of Intratec's integrity.

Further, Intratec methodology is continuously tested and proven accurate by those who are reliant on our chemicals pricing database, e.g., chemical and oil corporations, R&D centers, EPC companies, biotech startups, local manufacturers and consultants, financial institutions and government agencies.

Data Coverage

Intratec chemicals pricing database provides historical prices of +110 chemicals (data series begin in 2007), across more than 20 countries around the world. Price forecasts are also available, but are limited to specific chemicals in specific countries.

The Intratec team works continuously to expand our coverage of chemicals pricing data; our online database is regularly supplemented with that information, as well as data concerning chemical commodities. Those updates can be found at:

www.intratec.us/extensions/amChart/custom/pricing/pricing-data-summary.php.

Pricing Definitions

The Intratec chemicals pricing database offers, if not otherwise indicated, several countries' transaction prices for bulk quantities of chemical commodities, as defined by official trade statistics issued by those countries. As such, those are suggested costs and are not necessarily indicative of specific contract prices or spot transactions/bids as seen in certain locations. They are instead reflective of average values determined after the removal of outliers.

The Intratec chemicals pricing database's description of a chemical, presented on its respective page, offers detailed information about its price in countries where it is available. The International Chamber of Commerce's Incoterms are utilized to express that data, as a shorthand means of outlining buyers' and sellers' contractual obligations in terms of delivery location, transport, unloading, insurance, duties of the goods and which costs are incurred by whom. Definitions of those Incoterms can be seen below:

* Ex-Works (EXW): The seller's minimum obligation, that is, placing the goods at the buyer's disposal, is this term's definition. The buyer is responsible for all required aspects of export and import clearance, as well as organizing carriage and insurance.

* Free on Board (FOB): This term indicates that the delivery to and loading of the goods onto the ship designated by the buyer is the responsibility of the seller, who also assumes any costs and must handle export documentation and clearing goods for export. Following this delivery, the remainder of the transaction (transportation, unloading, insurance and associated costs) is the buyer's responsibility.

* Cost and Freight (CFR): In this case, the costs of delivering the goods to the indicated destination port are paid by the seller, with any risk and origin costs transferring to the buyer once the goods have been loaded onto the ship in the country of export. Origin costs, such as export clearance and freight costs for carriage to the designated port, fall to the shipper. Following delivery and onboarding, the remainder of the operation, including insurance, transportation of the goods from the port of destination to his/her premises, unloading, and associated costs, is the buyer's responsibility.

* Cost, Insurance & Freight (CIF): Despite the similarity of this term to CFR, there is one exception, the need for the seller to insure the goods as they are transiting to the designated destination port. Phrased differently, in terms of CIF, the costs of the goods, freight or transport, and insurance are included in the selling price. As discussed, following delivery and loading of the goods, the remainder of the operation and associated costs are assumed by the buyer. However, that excludes insurance and sea transportation, both of which are paid by the seller.

* Delivery Duty Paid (DDP): This term refers to the agreement of the seller to deliver the goods to the buyer at a named place of destination and unload at his own cost, as well as clearing those goods for import and covering all import duties, taxes and charges.

Unless otherwise noted, Value Added Tax (VAT) is not included in the pricing information found in the Intratec chemicals pricing database.

Data Sources and Validation

Intratec largely utilizes public sources, i.e., business and international government agencies, to gather what can be found in its pricing database. Those resources include transactions, bids, offers, volumes and any other information that can make a material contribution to price calculations.

It is Intratec's goal to confirm and ensure the integrity of all of that transaction information by cross-checking it across several sources; if, at any time, the accuracy of the original information is called into question or when the data cannot be generalized to other instances or is otherwise suspect, Intratec will not use it. This includes instances in which there is a significant deviation from the mean of the behavior of that price; prices that do not coincide with that chemical's usual lows and highs; when volume transactions are appreciably higher or lower than those normally found in that market; or if, for any reason, we identify theoretically irregular details of a particular transaction.

When there is scant or a dearth of sufficient transaction information, or when a methodology based on transaction data will fail to elicit a representative price, a pricing data adjustment will be done following a rigorous, replicable assessment process using broadly accepted valuation metrics, combined with an informed judgment bolstered by a broad array of factual market information. This is all done using great care in the collection and validation of all data utilized in the determination of prices that will ultimately be published.

This highly stringent procedure of combining valuation metrics with sound and proven judgment substantially narrows the band within which the assessment of a chemical can be completed while greatly increasing each price series' accuracy and consistency. Valuation metrics include the following:

- * Comparison to the same chemical in another location.
- * Comparison to the data traded reported by exporting and importing countries.

- * Comparison to the chemical's main feedstock(s) or main derived product(s).
- * Comparison to a different chemical but produced from the same main feedstock(s).

Status of Presented Data

The status of the chemicals pricing data Intratec provides can be:

- * Final – Consolidated data based on official statistics released by countries/organizations.
- * Preliminary – When there is a delay in the release of official statistics concerning a given chemical, prices that are presented may be preliminary; additionally, those may be estimations made by Intratec based on variations in the costs of (i) main raw materials employed in the production of that chemical; and/or (ii) main products manufactured from that chemical.

Price Forecast

Intratec provides short-term price forecasts, i.e., prices for the current month and the ensuing eight months (nine months in total), for a selection of chemicals. Those forecasts, derived from correlations with expectations as to (i) prices of main raw materials employed in the production of the chemical; (ii) main products manufactured from the chemical; and/or (iii) official industry/economic indexes, are based on estimates made by Intratec.

The price forecasts presented are reflective of what Intratec considers to be the most probable scenario for the upcoming nine months, as of the date such forecasts are updated. In other words, specific, 'frozen' market conditions, at the time they were calculated, serve as the basis of forecasted prices. It should be noted that market parameters utilized in the calculation of these forecasts can undergo significant revision within short periods of time, which is the reason for monthly updates.

Data Update

As discussed, with the gathering of new information, the Intratec pricing database is refreshed on a monthly basis, keeping in mind that the rate at which specific regional data are actually updated is dependent on the frequency of reports emerging from the official sources of those regions.

In this context, by the end of each month – most usually, by the second or third week – an update of the pricing database with data of the previous month is done by the Intratec team, as are any forecasts.

Pricing Data Corrections

Intratec is committed to accurately presenting reliable and representative pricing data; thus, occasionally, following online publication of information, pricing data corrections will be provided. This is done to correct any errors caused by clerical mistakes, calculation errors, or a misapplication of our stated methodology, as well to retroactively adjust prices when new information becomes available.

Ethics and Compliance

Independence and impartiality are central to Intratec and what we do. Intratec has no financial interest in the price of the chemicals on which it reports; our goal is to reflect the actual market level of those chemicals.

All Intratec employees are required to annually confirm the absence of any personal relationships or financial interests that may serve to influence or even be perceived to impact their ability to perform their jobs as objective, impartial and effective individuals.

Consistency of Published Data

Intratec employees are thoroughly trained in the elements of a variety of chemicals; their expertise is reassessed annually. Internal training guides for each of the different chemicals we cover are made available with the goal of ensuring that the pricing data Intratec publishes are accurate and consistent. Our employees are also schooled in the identification of potentially anomalous data, i.e., any information, including transactions, in which there are inconsistencies or deviations from our methodology or standard market conventions.

Review of Methodology

The publication of reliable, distortion-free prices that are representative indicators of market values is any methodology's overriding goal. To achieve that goal, Intratec employees perform regular examinations of our methodologies and frequently speak with those in the industry. In addition to this ongoing review of methodology, Intratec undertakes at least an annual review of all of its methodologies and methodology documents.

As necessary, this process includes periodic reviews of chemicals covered based on a qualitative analysis of liquidity, visibility, consistency, and quality of market data, as well as industry use of Intratec's assessments. These analyses include:

- * Appropriateness of the methodology of existing chemicals
- * Termination of existing pricing series
- * Initiation of new pricing series.

If merited, an internal discussion will take place which will address changes in or terminations of existing chemicals pricing data, as well as the initiation of new data. If necessary, formal procedures for conducting such changes or terminations will ensue.

Units of Measurement

Intratec assessments are published in a way that reflects the currencies and units of measurement in which the products typically trade. Commodities are generally traded in US dollars. It is for that reason Intratec pricing data is typically published in that currency.

One exception: 'Enterprise Plan' subscribers are free to choose different currencies and/or units of measurement for the prices presented in Intratec's chemicals pricing database.

Regionally published exchange rates are used for currency conversions; see the unit conversion factors presented below:

- * 1 pound = 0.000454 metric ton
- * 1 kilogram = 0.001 metric ton
- * 1 short ton = 0.907 metric tons
- * 1 liter = 0.001 cubic meter
- * 1 gallon = 0.003785 cubic meter
- * 1 US barrel = 0.159 cubic meter