

# Phenol Methodology

*September 2013*



The primary chemical intermediates and derivatives of phenol include phenolic resin, bisphenol-A (BPA), caprolactam, adipic acid and plasticiser. With the growing use of polycarbonate in such sectors as optical media, electrical and electronics and construction, BPA has emerged as the main outlet for much of the phenol production. Globally, BPA accounts for around 35% of phenol output, followed by 30% in phenolic resin and 10% in caprolactam. However, in the US, around 40% of phenol was used in BPA production, while in Western Europe up to 46% went into BPA.

Another major downstream application is phenolic resin, which can be used as a wood-binding adhesive in the construction sector; as a bonding agent for foundry and sand moulds in the industrial sector; and for manufacturing insulation and decorative adhesives in the household goods industry.

Strong growth is also projected for the use of phenol in polyphenylene oxide engineering plastics, via ortho-xylenol, although from a relatively small base. Phenol is also used as a slimicide; a disinfectant; and an anaesthetic in medicinal preparations, including ointments, ear and nose drops, cold sore lotions, throat lozenges, and antiseptic lotions.

The inhalation, ingestion, or skin contact with phenol may cause severe injury or death. It is combustible and produces irritating, corrosive and/or toxic gases when burning.

ICIS pricing quotes phenol in **Europe, Asia-Pacific, China** and the **US Gulf**.

**Frequency:**

Published weekly on Fridays.

**Phenol ( EUROPE )**

**Weekly Price Assessments**

*Phenol Monthly Contract Prices*

- FD NWE (EUR/MT & conversion to US CTS/LB)

*Phenol Spot Prices*

- FOB RDAM T2 EXP (USD/MT & conversion to US CTS/LB)

- FD NWE (EUR/MT & conversion to US CTS/LB)
- EXW Russia Rb/MT

#### *Phenol Feedstock Monthly Contract Prices*

- Benzene FOB NWE (EUR/MT & conversion to USD/GAL)

### **Phenol (ASIA-PACIFIC)**

#### **Weekly Price Assessments:**

##### *Phenol Spot Prices*

- CFR CHINA MAIN PORT\* (USD/MT & conversion to US CTS/LB)
- CFR S.E.Asia (USD/MT & conversion to US CTS/LB)
- CFR India (USD/MT & conversion to US CTS/LB)

### **Phenol (CHINA)**

#### **Weekly Price Assessments:**

##### *Phenol Spot Prices*

- CFR CHINA MAIN PORT\* (USD/MT)

##### *Domestic Spot Prices*

- EX-TANK EAST CHINA (CNY/MT)
- EX-TANK SOUTH CHINA (CNY/MT)

### **Phenol (US GULF)**

#### **Weekly Price Assessments**

##### *Phenol Monthly Contract Prices*

- DEL (US CTS/LB & conversion to USD/MT)

##### *Phenol Spot Prices*

- FOB export (US CTS/LB & conversion to USD/MT)

##### *Phenol Feedstock Monthly Contract Prices*

- Benzene FOB (USD/GAL)

### **General Information:**

**Assessment window:** Price assessments are based on information supplied by market participants through the week up to close of business on Fridays at 1700 hours in London , Singapore , Shanghai and Houston .

**Specification:** ICIS pricing quotes material that has a minimum purity of 99.0-99.5%.

**Timing:** Cargoes loading or delivered four-six weeks forward from the date of publication.

**Terms:** 30-90 days after bill of lading date. Cash payment in the China domestic market.

**Standard cargo size:** ICIS pricing covers freight delivered by ship and truck, depending on the region. The Asian coverage focuses on bulk lots delivered by ship. In Europe and the US Gulf, prices are quoted on a truck and ship delivered basis. Shipment sizes vary, depending on the markets.

In India, the typical cargo size is at least 1,000 tonnes.

In China the typical cargo size is at least 1,000 tonnes for imports and ex-tank domestic parcel sizes range from 10-50 tonnes. In southeast Asia, the cargo size ranges from 200-400 tonnes (small customers) to 500-1,000 tonnes (medium to large customers). In other parts of the world, cargoes are usually at least 1,000 tonnes.

Freight delivered by truck averages 23-24 tonnes in Europe, and 45,000 -50,000 lb in the US. US railcars carry a standard 150,000 lbs.

**Assessment basis:** Spot price assessments are based on information gathered throughout the week (Monday to Friday) from market players comprising producers, end-users and traders. The process of evaluation takes into consideration confirmed and reported deals; bids and offers; and buying and selling indications. Other deals heard would be mentioned in the text if they are seen to be having an impact on the market. In the absence of trades, the published price range may be adjusted on a notional basis to accurately reflect the levels at which trading activity could take place. Factors such as deep-sea cargo movements; supply/demand balance; plant operating rates; feedstock and derivative markets; and general market sentiment are also taken into account.

In Europe, the FOB Rotterdam T2 Exp spot prices are typically indicative of the region's export business to the Asia-Pacific markets. The FOB NWE spot prices on a truck delivered basis are typically indicative of business between producers, and traders/distributors. The European report includes a formal Russian rouble denominated spot price assessment.

These figures are quoted on an ex-works basis and include 18% VAT. The Euro quote is a conversion based on the day's exchange rate noted at the end of the report.

In Europe , contract prices on a truck delivered basis are based on a formula linked to the European benzene contract value of the same month. Some sellers agree on a settlement equivalent to the benzene contract price plus a percentage. This percentage varies from consumer to consumer. Only a few consumers fix their contract prices on a negotiated basis.

In the US Gulf, delivered (DEL) contract values are assessed monthly based on input from market sources involved in freely negotiated phenol contracts. The posted range reflects pre-discount values. The US Gulf spot price quote is derived on an FOB basis, representing mostly export business to South America and Asia . Domestic spot values are typically assessed in a similar range.

In Asia, spot prices are quoted on a CFR basis for bulk cargoes into regional markets such as China , parts of Southeast Asia and India . Imports include both regional and deep-sea parcels.

In China, the government has levied anti-dumping duties on phenol imports since 2004, which range from 0 to 144%. The bulk of imports to China typically has anti-dumping duties of 0-6% and product falling within this duty range is used for assessment purposes.

Hence the CFR China spot price quote includes imports from ASEAN (Association of South East Asian Nations) which now enjoy zero tariffs in accordance with a free trade agreement with China which took effect 1 January 2009.

The CFR CHINA MAIN PORT\* quote reflects a zero ADD basis, while subject to import duties of 5.5%. Cargoes subject to differing ADD will be included in the assessment after their ADDs have been normalised to the zero ADD basis. Southeast Asian cargoes exempted from import tariffs will also be included in the assessment after their import tariffs have been normalised to the 5.5% basis.

Domestic ex-tank spot prices in China reflect prices of both domestic and imported product from first tier distributors.



The feedstock prices in Europe and the US Gulf reflect the ICIS pricing assessments as posted in the respective regions' reports for the current week.

All regional reports offer market commentary that includes details of traced transactions, news on the supply/demand balance, export/import information, contract price negotiations and general sentiment for price direction. Where applicable there is product information, comments on up and downstream market developments and general market intelligence.

23 September 2013

