BISPHENOL A

Bisphenol A is produced by the condensation of phenol and acetone in the presence of an acid catalyst (hydrogen chloride) and usually a promoter such as methyl mercaptan. Cation exchange resins can replace the acid catalyst in newer plants.

Two grades of BPA are produced; one suitable for epoxy resin manufacture and a higher purity grade for polycarbonate production.

The main outlet for BPA is in the manufacture of polycarbonate which accounted for 65% of global demand in 2001. Polycarbonate is used in a variety of applications such as the fast growing optical media industry, electrical and electronic, construction, automotive and packaging applications.

The second largest outlet at around 30% of BPA consumption is epoxy resins. Other uses include flame retardants, unsaturated polyester resins and polyacrylate, polyetherimide and polysulphone resins.

BPA dust, vapour and solutions cause irritation to the skin, lungs and eyes. It may cause sensitisation and may affect fertility. It is a slight fire hazard but the dust can also cause explosive mixtures with air. Carbon dioxide, dry chemical or foam can be used to blanket fires. Fire fighters must wear protective clothing and self-contained breathing apparatus as toxic gases are given off during burning.

BPA is not considered a major threat as a pollutant while current uses pose minimal risk to the environment.

ICIS pricing quotes bisphenol A in Europe, Asia-Pacific and China.

Frequency:

All reports are published weekly on Fridays

Bisphenol A (EUROPE)

Weekly Price Assessments:

Contract Prices

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

Bisphenol A (ASIA-PACIFIC)

Weekly Price Assessments:

Spot Prices

- CFR CHINA (USD/MT & conversion to US CTS/LB)
- CIF INDIA (USD/MT & conversion to US CTS/LB)

Bisphenol A (CHINA)

Weekly Price Assessments:

Import Prices (spot)

- CFR CHINA MAIN PORT

Domestic Prices (spot)
EXWH prices for both domestic and imported materials

**General Information**

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

**Specifications:** In Europe and Asia, ICIS pricing quotes both epoxy grade and polycarbonate grade material. The China report quotes both epoxy and polycarbonate grade material, but is more typically polycarbonate grade.

**Timing:** In Europe, cargoes loading or delivered within four to six weeks from the date of publication. In Asia, cargoes loading or delivered within two to six weeks from the date of publication. In the China reports, domestic cargoes loading or delivered one week forward from the date of publication and international cargoes loading or delivered two to six weeks forward from the date of publication.

**Terms:** 30-60 days after bill of lading date. In the Asia Pacific and China reports, CFR prices are typically 60-90 days after bill of lading date.

**Standard cargo size:** In Asia, lot sizes for spot transactions are typically 200-1,000 tonnes, but this also depends on market conditions. Tight supply and weak demand can see average lot sizes shrink as low as 50-200 tonnes. In China, standard volume sizes of bagged Bisphenol A are 25kg, 500kg, 750kg and 1,000kg, and the accepted lot sizes for spot assessments are 10-200 tonnes.

In Europe, typical truck size is 22-24 tonnes.

**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, contract prices are gross prices and are confirmed by regular contract business partners in the epoxy resins sector. The monthly contract price assessment is for freely negotiated contract business between regular trading partners. The spot price represents business for additional volumes outside contract and is assessed weekly. Formula contract prices are reported monthly and are detailed in the text.

In Asia, ICIS pricing tracks BPA spot prices in China and India.

The CFR China quote predominantly refers to spot trades with the epoxy sector in China. The Chinese government has levied anti-dumping duties on BPA imports since 2007, which range from 0-37.1%. The bulk of imports to China typically have anti-dumping duties of 0-7.9%, and fixtures falling within this duty range are used for assessment purposes.

Imports from ASEAN (Association of South East Asian Nations) which enjoy zero tariffs in accordance with a free trade agreement with China, will also be included in the assessment after their import tariffs have been normalised to the 5.5% basis.
Assessments will take into consideration bonded warehouse cargoes during illiquid trading gaps when there are insufficient deals.

The CFR China quotes does not include the import tariffs and anti-dumping duties, although we take into consideration that the amount of the duty will affect bids and offers. Most epoxy and polycarbonate producers in Korea, Japan, Taiwan and southeast Asia buy on a monthly or quarterly contract basis.

In China, the EXWH prices reflect transactions between domestic producers, traders and consumers. East China includes Shanghai, Zhejiang and Jiangsu, and North China includes Shandong and Tianjin.

The CIF India quote mainly refers to spot trade for imported cargoes in India where cargo sizes can range from 50-200 tonnes for small lots while larger lots can range from 200-1000 tonnes. The prices reflect the transactions between regional producers, traders and consumers.

The 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.

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