

## CAUSTIC SODA

Caustic soda, with its co-product chlorine, is produced via an electrolysis of brine, in the ratio of one part chlorine to 1.1 parts caustic soda. Chlor-alkali products can be manufactured using one of three processes – mercury, diaphragm and membrane, with the industry moving towards the membrane process.

Typically chlor-alkali manufacturers use a proportion of their chlorine captively, as it is used in the production of a considerable number of chemicals. The most important of these is vinyl chloride, which accounts for around a third of chlorine consumption. Other end uses include solvents, water treatment and inorganic pigments. Even the intermediates used to make chlorine-free products contain chlorine.

The largest end markets for caustic soda are the alumina industry (13%), mining, organic chemicals (18%), inorganic chemicals (11%) and pulp and paper (16%). Other important end uses include textiles (10%) and soaps and detergents (8%). In chemical manufacturing, caustic soda is used for pH control, acid neutralisation and as a catalyst.

ICIS pricing quotes caustic soda in **Europe, Asia-Pacific, US Gulf, Latin America, Africa and China.**

### **Frequency:**

All reports are published weekly: China and Africa on Thursdays, Europe, Asia-Pacific, US Gulf, Latin America on Fridays.

### **Caustic Soda (Europe)**

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

##### *Liquid Caustic Soda Spot Prices*

- FOB NWE (USD/DMT & conversion to US CTS/LB)
- FOB MED (USD/DMT & conversion to US CTS/LB)

##### *Solid Caustic Soda Spot Prices*

- FOB NWE (USD/MT & conversion to US CTS/LB)
- FOB MED (USD/MT & conversion to US CTS/LB)
- FOB EASTERN EUROPE (USD/MT & conversion to US CTS/LB)

##### *Flake Caustic Soda Spot Prices*

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

##### *Pearl Caustic Soda Price*

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

## Caustic Soda (Asia-Pacific)

### **Weekly Price Assessments:**

#### *Liquid Caustic Soda Spot Prices*

- FOB NE ASIA (USD/DMT & conversion to US CTS/LB)
- CFR SE ASIA (USD/DMT & conversion to US CTS/LB)

## Caustic Soda (CHINA)

### **Weekly Price Assessments:**

#### *Export Prices (spot) – FOB CHINA*

- *Liquid Caustic Soda (USD/MT)*
- *Flake Caustic Soda (USD/MT)*

#### **Domestic Prices (spot) - Liquid**

- NORTH CHINA EXWH (CNY/MT)
- EAST CHINA EXWH (CNY/MT)
- SOUTH CHINA EXWH (CNY/MT)

#### *Domestic Prices (spot) - Flake*

- NORTH CHINA EXWH (CNY/MT)
- EAST CHINA EXWH (CNY/MT)
- SOUTH CHINA EXWH (CNY/MT)

#### *Chlorine Spot Prices*

- Shandong EXWH (CNY/MT)
- Jiangsu EXWH (CNY/MT)

## Caustic Soda (US Gulf)

### **Weekly Price Assessments:**

#### *Liquid Caustic Soda Spot Prices*

- EXPORT FOB USG (USD/DMT)
- BARGE FOB USG (USD/DST)

#### *Liquid Caustic Soda Contract Prices*

- FOB monthly (USD/DST)



### *Chlorine quarterly contract price*

- FOB quarterly (USD/ST & conversion to US CTS/LB)

### **Caustic Soda (Latin America)**

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

##### *Caustic Soda Domestic Prices*

- ARGENTINA EX-TANK (USD/DMT)
- BRAZIL EX-TANK (USD/DMT)
- MEXICO EX-TANK (USD/DMT)

##### *Caustic Soda Import Prices*

- BRAZIL CFR (USD/DMT)
- COLOMBIA CFR (USD/DMT)
- MEXICO CFR (USD/DMT)

### **Caustic soda (Africa)**

##### *Liquid Spot Prices*

- FOB NORTH AFRICA (USD/DMT & price four weeks ago)
- CFR DURBAN (USD/DMT & price four weeks ago)

##### *Solid Flake Spot Prices*

- CFR DURBAN (USD/DMT & price four weeks ago)
- CFR KENYA (USD/DMT & price four weeks ago)

### **General Information:**

**Assessment window:** Price assessments for the China report are based on information supplied by market participants through the week up to close of business on Thursday 1700 hours Shanghai time. Price assessments for the Africa report are based on information supplied by market participants through the week up to close of business on Thursday 1700 hours in London. The European and Asia-Pacific, US Gulf and Latin American 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 and Houston and 1730 hours in Singapore.



**Specification:** ICIS pricing assesses caustic soda on a 100% dry basis, and price ranges encompass product of all grades. In the China report, export prices are for 48% Membrane grade and 99% Flake, while domestic prices are for 32% Membrane grade and 99% Flake. In Africa, liquid prices are for 50% caustic soda content, and solid prices are for 98.5% caustic soda content.

**Timing:** Cargoes loading four-six weeks forward from the date of publication. In the China domestic market, cargoes loading or delivered prompt.

In Africa, assessments cover deliveries up to six weeks from the date of publication

**Terms:** 30-60 days after bill of lading date. For China domestic transactions only - payment at sight. For China export transactions, LC at sight to 30 days.

For Africa, credit terms for caustic soda are 30-90 days after bill of landing date.

**Standard cargo size:** The ICIS US Export assessment is based on cargoes of between 3,000-5,000 DMT. They are shipped in a 50% solution and quoted as LMT.

In Latin America, caustic soda prices are assessed for medium-size customers purchasing 5,000-40,000 dmt/year. Alumina processors who purchase caustic soda in volumes of several 100,000s dmt/year are not included in the assessments, since the total volumes handled provide substantial leverage to product pricing and shipping costs.

Parcel sizes in Asia and the Mediterranean tend to be between 1,500-2,000 DMT. In the China report, the parcel size of flake tends to be 50-300 DMT; and that of liquid 500-5,000 DMT

In Africa, solid caustic soda is delivered in 25 kg bags on pallets in 20-foot or 40-foot containers. Most solid caustic soda is imported from the Middle East, India and China, while liquid caustic soda is imported from Europe, the US and the Middle East. Liquid caustic soda is imported in tankers. The typical liquid caustic soda cargo size is 3,000-5,000 dmt/shipment.

**Assessment basis:** The European report offers assessments on liquid, solid, flake and pearl caustic soda. In Africa and Asia, including China, liquid and solid is covered, while in the US Gulf and Latin America assessments are only for liquid product.

European business is largely domestic liquid shipments. Most NWE cargoes are shipped from the Amsterdam-Rotterdam-Antwerp region to the Mediterranean or the northeast US coast. In the Mediterranean, the main trade flows are from France, Spain and Egypt to Turkey and Italy, though increasingly there have been higher profile exports from the Black Sea.

US business is mostly liquid caustic soda, sold domestically or exported in shipments to ports around North and South America. In the domestic market, caustic soda is usually shipped from production centres along the US Gulf coast up the Mississippi river on barges and then distributed across the US and Canada.



US caustic soda contract prices are based on monthly price negotiations between buyers and producers, with the lower end of the range typically representing prices to large buyers, while prices at the higher end of the range are paid by smaller buyers. These prices do not include discounts. Spot prices are assessed on a weekly basis and reflect spot trading between buyers and traders as well as producers.

Latin America liquid caustic soda domestic prices are assessed on a dry metric tonne ex-tank basis for tank-truck shipments. Import prices are on a dry metric tonne CFR destination-port basis for bulk shipments.

Asian business comprises domestic sales, intra-Asian business and structural shipments from northeast Asia to the US west coast. FOB NE Asia includes China, Korea, Japan and Taiwan, while CFR SE Asia includes Malaysia, Singapore, Indonesia, Thailand, Vietnam.

China business comprises domestic sales and structural shipments from China to Australia and US West coast, FOB CMP includes Shanghai, Shandong, Taixing and Tianjin ports. Tax-inclusive EXWH prices of Chlor-alkali producers and the 1st tier distributors are discussed in China price assessments. North China refers to Tianjin and Hebei, east China to Shanghai, Zhejiang, Jiangsu and Shandong, south China to Guangdong, Fujian, Guangxi, Hunan, Yunnan and Jiangxi.

In Africa, with the exception of Northern Africa, material is mostly imported from Europe, Asia, the US Gulf and the Middle East. In Northern Africa, the majority of business is domestic and export.

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