

## I-2 Summary of levulinic acid manufacturers

As of February 2009, China has 9 active LA producers:

Table I-2.2 Production data of levulinic acid producers in China in 2009

| No.   | Abbr.             | Status  | Capacity' 09(t/a) | Output' 08(tonne) | Quoted Feb. 2009 | Raw material     |
|-------|-------------------|---------|-------------------|-------------------|------------------|------------------|
| 1     | ■■■■■             | Active  | ■■■               | ■■■               | ■■■              | ■■■              |
| 2     | ■■■■■             | Active  | ■■■               | ■■■               | ■■■              | Furfuryl alcohol |
| 3     | ■■■■■             | Active  | ■■■               | ■■■               | ■■■              | ■■■              |
| 4     | ■■■■■             | Active  | ■■■               | ■■■               | ■■■              | ■■■              |
| 5     | Shandong Changlin | Active  | ■■■               | ■■■               | ■■■              | ■■■              |
| 6     | ■■■■■             | Active  | ■■■               | ■■■               | ■■■              | ■■■              |
| 7     | ■■■■■             | Active  | ■■■               | ■■■               | ■■■              | ■■■              |
| 8     | ■■■■■             | Active  | ■■■               | ■■■               | ■■■              | ■■■              |
| 9     | ■■■■■             | Active  | ■■■               | ■■■               | ■■■              | Starch           |
| 10    | ■■■■■             | Stopped | ■■■               | ■■■               | ■■■              | \                |
| Total |                   |         | ■■■               | ■■■               | ■■■              | \                |

Source: CCM

## I-4 Consumption

Though with wide application range, LA is not widely used in many fields at present. In China, it is mainly used in the fields of medicine, agriculture, food, etc. The consumption volume of LA was about ■■■ tonnes in 2008, with about ■■■ consumed by the producers themselves.

### Pharmaceutical industry

Table I-4.1 Some Chinese levulinic acid end users in pharmaceutical industry

| No. | Company  | Product | Consumption volume in 2008 (t) |
|-----|--|---------|--------------------------------|
| 1   | ■■■■■  | ■■■     | ■■■                            |
| 2   | ■■■■■  | ■■■     | ■■■                            |
| 3   | ■■■■■  | ■■■     | ■■■                            |
| 4   | Jiangsu Wuzhong Group Suzhou NO.6 Pharmaceutical Factory | ■■■     | ■■■                            |
| 5   | ■■■■■  | ■■■     | ■■■                            |

Source: CCM

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## II Export situation of levulinic acid in 2008(Jul.- Dec)

During the 2008 Olympic Games, most domestic producers suspended LA production, so the export volume of LA decreased in 2008.

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Table II-1 Export volume and price of LA in Jul.-Dec. 2008

| Month        | Quantity(tonne) | Price(USD/kg) |
|--------------|-----------------|---------------|
| July         |                 |               |
| August       |                 |               |
| September    |                 |               |
| October      |                 |               |
| November     |                 |               |
| December     |                 |               |
| <b>Total</b> |                 |               |

Source: CCM

Table II-2 Export volume of LA in Jul.-Dec. 2008, by manufacturer

| No.          | Manufacturer                                   | Quantity(tonne) | Price(USD/kg) |
|--------------|--|-----------------|---------------|
| 1            |  |                 |               |
| 2            |  |                 |               |
| 3            | Hebei Langfang Triple Well Chemicals Co., Ltd. |                 |               |
| <b>Total</b> |  |                 |               |

Source: CCM

Table II-3 Export volume of LA in Jul.-Dec. 2008, by destination

| No.          | Country | Quantity(tonne) | Price(USD/kg) |
|--------------|---------|-----------------|---------------|
| 1            |         |                 |               |
| 2            |         |                 |               |
| 3            | Belgium |                 |               |
| <b>Total</b> |         |                 |               |

Source: CCM